**Government of India**

**Ministry of Road Transport & Highways**

# Consultancy Services for Authority Engineer for supervision of Widening to 2LPS From Km 156.900 to Km 175.00 Dugadda to Gumkhal of NH-534 Old NH-119 on EPC Mode in the state of Uttarakhand Under Annual Plan 2025-26.

## Request for Proposal (RFP)

**May 2026**

**Government of India**
**Ministry of Road Transport & Highways**
**Regional Office, First Floor,**
**Institute of Engineers (India) Building,**
**Near ISBT Saharanpur Road**
**Dehradun 248002 Uttarakhand**

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# Section I: Request for Proposal Letter (RFPL)

## 1. Request for Proposal Letter (RFPL)

The President of India through the Secretary (RT&H), (hereinafter referred to as 'the Authority', 'the Head of Procurement', 'the Procuring Entity' and 'the Procuring Organisation' respectively), invites proposals (hereinafter referred as 'the Proposal(s)') from eligible consultants on the basis of International Comptetive Bidding (please see Tender Information Summary (TIS) appended to this letter for reference), for entering into a contract for the delivery of Consultancy Services for engaging an Authority Engineer (AE) (hereinafter referred to as 'the Services'), using the selection method as specified in TIS. This Request for Proposal (RFP) Document, reference number, RFP No./ NH-534(old NH-119)-UK -2025-26-756(AE) (hereinafter referred to as 'the RFP Document'), gives further details.

## 2. The RFP Document

### 2.1. Consultants must read the complete 'RFP Document'.

This RFPL, an integral part of the RFP Document, serves the limited purpose of invitation and does not purport to contain all relevant details for submitting Proposals. 'Tender Information Summary' (TIS) appended to this letter gives a salient summary of the relevant information, including the Type of BPQ/ Contract, basic eligibility and Selection Method to evaluate RFP. Any generic reference to RFPL shall also imply a reference to TIS as well. However, Consultants must go through the complete RFP Document for details before submission of their Proposals.

2.2. Availability of the RFP Document The RFP Document shall be published on "INFRACON" (www.infracon.nic.in)/ e-Procurement portal (https://eprocure.gov.in) for download after the date and time of the start of availability till the deadline for availability as mentioned in TIS. The Consultant who download the RFP document from the website will be required to pay the non- refundable fee of Rs. 5,000/- towards cost of RFP at the time of the submission of the Bid proposal through online mode in favour of MoRTH. If the Procuring Entity happens to be closed on the deadline for the availability of the RFP Document, the deadline shall not be extended. Any query/ clarification regarding downloading RFP Documents and uploading Proposals on the e-Procurement portal may be addressed to (please refer to TIS for details).

As such before submitting the proposal the Consultant shall mandatorily register and enlist themselves (the firm and all key personnel), on the MoRTH portal "INFRACON" and furnish registration details along with its RFP. A copy of Infracon Operation Procedure is also enclosed for bidder's reference. All the bidders registered on Infracon shall form a Team on Infracon and which would be assigned unique Infracon Team ID. Bidders while submitting the proposal shall quote the Infracon Team ID. Bid must be submitted online at e-tender portal of MoRT&H https://eprocure.gov.in.

Any query/ clarification regarding downloading RFP Documents and uploading Proposals on the e-Procurement portal may be addressed to the Help Desk in the eProcurement Portal (please refer to TIS for details).

### 2.3. Clarifications

A Consultant may seek any clarification of the RFP Document through the eProcurement portal before the date and time stipulated in TIS (or, if not mentioned, before 14 days of the deadline for the proposal submission). This deadline shall not be extended in case of any intervening holidays. No other means of submission of queries shall be entertained.

## 3. Eligibility and Qualification Criteria for Participation in this RFP

Consulting firms meeting the eligibility criteria as mentioned in Appendix- 1 to Tender Information Summary (TIS) are only eligible for applying for this assignment. Firms not meeting these criteria, need not apply.

## 4. Purchase Policies of the Government

1) Central Government policies restrict the participation of entities from i) Certain countries sharing land borders with India and ii) Countries that restrict the participation of Bidders from India. Consulting firms shall submit the declaration regarding these restrictions as mentioned in Appendix- 1 to Tender Information Summary (TIS). They should ensure that they continue to comply with such declarations till completion of bidding process.

## 5. Pre-Proposal Conference:

If indicated in TIS, Consultants are requested to attend a Pre-Proposal conference to clarify the RFP's technical requirements and commercial conditions at the time, date, and place mentioned therein.

## 6. Submission of Proposals:

1) Proposals must be uploaded by the submission deadline mentioned in TIS. If the office happens to be closed on that date, this deadline shall not be extended. Further details are given in ITC.
2) Integrity Pact: All Consultants shall have to sign the Integrity Pact with the Procuring Entity as per 'Form T-10: Integrity Pact'. Proposals without a signed Integrity Pact shall be rejected.

## 7. Proposal Opening

Proposals received shall be opened online on or after the specified date and time in TIS. If the office is closed on the specified date of opening of the Proposals, the opening shall be done on the next working day at the same time.

Digitally Signed by Tender Inviting Authority (TIA)

Regional Officer
Ministry of Road Transport & Highways,
1st Floor, IEI Building, Near ISBT,
Dehradun, Uttarakhand

**Appendix: Tender Information Summary (TIS)**

## Appendix to RFPL: Tender Information Summary (TIS)

RFP Document No. RFP No./NH-534(old NH-119)-UK-2025-26-756(AE); Tender Title: **Consultancy Services for Authority Engineer for supervision of Widening to 2LPS From Km 156.900 to Km 175.00 Dugadda to Gumkhal of NH-534 Old NH-119 on EPC Mode in the state of Uttarakhand Under Annual Plan 2025-26.**

(Ref ITC-clause 1.4)

| **Tender Information Summary (TIS)** | | | |
|---|---|---|---|
| 1.0 Basic Tender Details | | | |
| Tender Title/ Name of Assignment | Consultancy Services for Authority Engineer for supervision of Widening to 2LPS From Km 156.900 to Km 175.00 Dugadda to Gumkhal of NH-534 Old NH-119 on EPC Mode in the state of Uttarakhand Under Annual Plan 2025-26.. | | |
| Tender Reference Number | RFP No./ NH-534(old NH-119)-UK-2025-26-756(AE) | Tender ID | [Fill up] |
| Tender Type | International<br>Competitive Bidding | Tender Category | Consultancy Services |
| No. of Covers | [Two Covers] | Product Category | [Consultancy] |
| Selection Method | [ QCBS]<br>Based on Highest score assessed on Technical, PBG and Financial<br>Criteria. | Appointing Authority for Arbitration | RO,<br>MoRTH,<br>Dehradun |
| Organisation: | MoRTH | The Procuring Entity: | MoRTH |
| Authority on whose behalf RFP is invited | President of India through Secretary | Through the | RO, MoRTH,<br>Dehradun |
| Tender Inviting Authority (TIA) | | Address | Regional Office, First Floor,<br>Institute of Engineers (India) Building,<br>Near ISBT Saharanpur Road<br>Dehradun 248002<br>Uttarakhand |

| **2.0 Critical Dates (ITC-clauses 6, 7; 8; 9, and 10)** |
|---|
| *For the schedule of dates for the Pre-Proposal Conference, if any, please refer to Section 7.0 below* |

| | | | |
|---|---|---|---|
| Published Date | 28.05.2026 | Proposal Validity (Days from the date of Proposal Opening) – ITC-clause 8.3 | 100 Days |
| Document Download Start Date & Time | 28.05.2026 | Document Download End Date & Time | 13.07.2026 @05:00 PM |
| Clarification Start Date & Time | 28.05.2026 | Clarification End Date & Time | 24.06.2026 @ 05:00 PM |
| Proposal Submission Start Date & Time | 08.06.2026 | Proposal Submission Closing Date & Time | 13.07.2026 @ 05:00 PM |
| Proposal Opening (techno-commercial Proposal) Date & Time | | 14.07.2026 | |
| | | Proposal Opening (Financial Proposal) Date & Time | *[To be intimated later]* |

**3.0 Terms of Reference (ITC-Clause 4)**

| | | | |
|---|---|---|---|
| Consignee/ State: | *Uttarakhand* | GSTIN Code of Consignee | *05MRTE00483A1D2* |
| Period of Contract | Construction Period (36 months) + maintenance period of Civil contract (120 months). | | |

Service Details:

| Sl. No | NH No. | Section | State | Tentative Length (in km) | Fixed Cost (Excluding GST) |
|---|---|---|---|---|---|
| 1 | NH-534 | Consultancy Services for Authority Engineer for supervision of Widening to 2LPS From Km 156.900 to Km 175.00 Dugadda to Gumkhal of NH-534 Old NH-119 on EPC Mode in the state of Uttarakhand Under Annual Plan 2025-26. | Uttarakhand | 18.1 km | |
| | | **Total Length** | | **18.1 km** | |

| | | | |
|---|---|---|---|
| **4.0 Obtaining the RFP Document and clarifications (ITC-Clause 6)** | | | |
| Procuring Entity's Portal and helpdesk | https://eprocure.gov.in/eprocure/app | *[0120-4001 002; 0120-4001 005; 0120-6277 787* | |
| | *or support-eproc@nic.in]* | | |
| Cost of RFP Document (INR) | Rs 5000/-<br>The Consultant who download the RFP document from the website will be required to pay the non- refundable fee of Rs. 5,000/- towards cost of RFP at the time of the submission of the Bid proposal through Bharatkosh Portal (www.bharatkosh.gov.in) in favour of Pay & Account Office (PAO): 034415-PAO(NH), New Delhi, Drawing & Disbursing Office (DDO): 234444-Engineer Liason Officer, Ministry of Road Transport and Highways, Government of India. Proof of fee submission shall be submitted along with the technical proposal. | | |
| Office/ Contact Person/ email for clarifications | Regional Office, MoRT&H, First Floor, Institute of Engineers () Limited, Near ISBT Saharanpur Road, Dehradun 248002, Uttarakhand.<br>Email: romorthddn@gmail.com | | |
| **5.0 Pre-Proposal Conference (ITC-clause 7)** | | | |
| Is a Pre-Proposal Conference proposed to be held? | Yes | | |
| Place, time, and date of the Pre-Proposal Conference | 24.06.2026 at, Regional Office, MoRT&H, First Floor, Institute of Engineers (India) Limited, Near ISBT Saharanpur Road Dehradun 248002, Uttarakhand.<br>Email: romorthddn@gmail.com | | |
| Place, time, and date before which Written queries for the Pre-Proposal conference must be received | 24.06.2026 at, Regional Office, MoRT&H, First Floor, Institute of Engineers (India) Limited, Near ISBT Saharanpur Road Dehradun 248002, Uttarakhand.<br>Email: romorthddn@gmail.com | | |
| Place, time, and date before | 24.06.2026 at, Regional Office, MoRT&H, First Floor, Institute of Engineers (India) Limited, Near ISBT Saharanpur Road Dehradun 248002, Uttarakhand.<br>Email: romorthddn@gmail.com | | |
| which registration of participants for the Pre-Proposal conference must be Received | romorthddn@gmail.com | | |
| **6.0 Preparation and Submission and Opening of Proposals (ITC-clause 8, 9 and 10)** | | | |
| Proposals to be addressed to | President of India, Through RO, MoRTH, Dehradun | | |
| Instruction for Online Proposal submission | All the bidders registered on Infracon shall form a Team on Infracon and which would be assigned unique Infracon Team ID. Bidders while submitting the proposal shall quote the Infracon Team ID.<br>All the bidders registered on Infracon shall form a Team on Infracon and which would be assigned unique Infracon Team ID. Bidders while submitting the proposal shall quote the Infracon Team ID.<br>Bid must be submitted online at e-tender portal of MoRT&H https://eprocure.gov.in on or before last date of submission of proposal. | | |
| Language of Submission | *[English]* | Bid Validity | *Modify as per standard.* |
| Proposal Opening Place | On e-procurement portal https://eprocure.gov.in | | |
| **7.0 Documents relating to Bid Security (ITC-clause 8.4) and Performance Security (ITC-clause 13.1.2)** | | | |

| | | | |
|---|---|---|---|
| Bid Security (EMD) Amount in INR: | Rs 10,00,000/- | Is Bid Securing Declaration permitted in lieu of Bid Security | *Yes* |
| Performance Security | *To be quote by bidder as pert opf financial proposal subjected to Minimum of 5%* | Bid/ Performance Security to be addressed/ in favour of | *Regional Officer, MoRTH, 1st Floor, Institute if Engineers Building, Near ISBT, Dehradun-248002 (Uttarakhand)*<br>*Details of Bank of authority:*<br>*Name of Beneficiary: PAO (NH), New Delhi*<br>*Name of Bank & Branch: Canara Bank, Transport Bhawan, New Delhi*<br>*Account Number: 90621150000040*<br>*IFSC Code: CNRB0019062* |
| Form of Bid/ Performance Security | *[Insurance Surety Bonds, Bank Guarantee from any of the Commercial Banks, payment online in an acceptable form]* | | |

# Appendix-1 to TIS: Eligibly Criteria

1.1 Consultants should meet the following eligibility criteria as of the date of their RFP submission and should continue to meet these until the subsequent RFP process and contract award. Consultants shall be required to demonstrate fulfilment of the Eligibility Criteria in clause 1.2/Form 1.2 (Eligibility Declarations). Consultant unless otherwise stipulated in:

1) must be:

(a) a natural person (an individual Consultant), a private entity (a Consulting Company/ LLP /Partnership firm/ Society registered under an applicable Act in India), a public Entity (Government-owned enterprise or institution), Joint Venture/ Consortium (an association of several persons, firms, or companies - hereinafter referred to as JV/C).

(b) a Consultancy Services provider with valid registration regarding GSTIN, PAN, EPF, ESI, Labour, or equivalent registration certificate, issued by the concerned authority/government as applicable to the subject Services.

2) must:

(a) not be insolvent, in receivership, bankrupt or being wound up, not have its affairs administered by a court or a judicial officer, not have its business activities suspended and must not be the subject of legal proceedings for any of aforesaid reasons.

(b) (Including their affiliates, subsidiaries, or contractors/ sub-consultants for any part of the contract):

i) Not stand declared ineligible/ blacklisted/ banned/ debarred by the MoF/MoRTH/NHAI/NHIDCL/BRO/PWD from participation in its procurement processes. The applicability of debarment of firm from bidding shall be as per Ministry of finance OM No F.1/20/2018-PPD dated 02.11.2021 and its modification if any, there of ; and/ or

ii) Not be convicted (within three years preceding the last date of RFP submission) or stand declared ineligible/ suspended/ blacklisted/ banned/ debarred by appropriate agencies of the Government of India from participation in procurement processes of all its entities, for:

- offences involving moral turpitude in business dealings under the Prevention of Corruption Act, 1988 or any other law; and/or
- offences under the Indian Penal Code or any other law for causing any loss of life/ limbs/ property or endangering Public Health during the execution of a public procurement contract and/ or
- Suspected to be or of doubtful loyalty to the Country or a National Security risk as determined by appropriate agencies of the Government of India.

iii) Not have changed its name or created a new "Allied Entity", consequent to having declared ineligible/ suspended/ blacklisted/ banned/ debarred as above.

(c) Not have an association (as a consultant/ partner/ director/ employee in any capacity)

of any retired employee (of Gazetted Rank) or any retired Gazetted Officer of the Central or State Government or its Public Sector Undertakings, if such a retired person has not completed the one- year cooling-off period (or any other period stipulated by their erstwhile Employer) after his retirement. However, this shall not apply if such employees/ officers have obtained a waiver of the cooling-off period from their former organisation.

- of the near relations of executives of Procuring Entity involved/ likely to be involved in this procurement process

(d) Not have a conflict of interest (as defined in clause 4.5 below), which substantially affects fair competition. No attempt should be made to induce any other consultant to submit or not to submit an RFP to restrict competition.

(e) must fulfil any other additional eligibility condition, if any, as may be prescribed in the RFP document.

(f) Must fulfil the technical capacity requirements at the time of award.

3) from certain countries shall be eligible subject to certain conditions as detailed in Clause 1.2 below.

4) must provide such evidence of their continued eligibility to the Procuring Entity if requested.

**1.2 Eligibility of Consultants from Restricted countries**

1.2.1 **Restrictions based on Reciprocity**.

Entities from countries (if so, identified in Section II: Appendix) as not allowing Indian companies to participate in their Government procurement shall not be allowed to participate (directly or as a sub-contractor or as a member of a JV/C) on a reciprocal basis in this RFP process under the "Public Procurement (Preference to Make in India) Order 2017[1]" (MII – para 10 -d) of Department for Promotion of Industry and Internal Trade, (DPIIT). Consultants must apprise themselves of the latest version of this order.

**1.2.2 Restrictions Based on Land Borders**

*Order2 (Public Procurement No. 1) issued by the Government of India (Ministry of Finance Department of Expenditure Public Procurement Division) restricting procurement from consultants from certain countries that share a land border with India shall apply to this procurement. Consultants must apprise themselves of the latest version of this order. Any consultant from a country that shares a land border with India3, excluding countries to which the Government of India has extended lines of credit or in which the Government of India is engaged in development projects (as listed on the website ofthe Ministry of External Affairs4), – hereinafter called 'Restricted Countries' shall be*
*Eligible to participate in this RFP, only if the consultant is registered 5 with the Registration Committee constituted by the Department for Promotion of Industry andInternal Trade (DPIIT). Consultants shall enclose the certificate in Form 1 - RFP Form.*

**1.3 Joint Venture/ Consortium (JV/C)6**

1.3.1 In the case where a consultant is or proposes to be a Joint Venture/ Consortium (that is, an association of several persons, firms, or companies - hereinafter referred to as JV/C), then unless otherwise specified in Section II: Appendix, in JV/C:

a) members should not be more than

i) Two (02) for the Project for which AE bid have been invited having Civil cost upto 1000 crores

ii) Three (03) for Project for which AE bid have been invited having civil cost more than 1000 crores

b) no member should have less than 10% participation;

c) members having participation between 10% and 20% shall be termed as non-substantial members.

d) Members having more than 20% participation shall be termed as substantial members.

e) The Lead member must have at least 40% participation.

f) The lead member/consultant and various categories of members of the JV/C must be identified.

g) Number of non-substantial members shall not be more than one (01)

1. No. P-45021/2/2017-PP (BE-II) dated 16th September 2020

2. F.N0.6/18/2019-PPD dated 23rd July, 2020

3. https://mea.gov.in/india-and-neighbours.htm

4. http://meadashboard.gov.in/indicators/92

5 https://dipp.gov.in/sites/default/files/Revised-Application-Format-for-Registration-of-Consultants-15Oct2020.pdf

6. the expressions "Joint Venture" or "JV" shall mean a joint venture, association, consortium, or other unincorporated grouping of two or more persons, whether in the form of a partnership or otherwise. Similarly, in the context of Joint Venture as the context permits, the word "leader, is synonymous with the words "representative" and "Lead Partner"; the word "member" is synonymous with the word with "partner".

1.3.2 The JV/C and all members must satisfy all the eligibility requirements in this RFP document.

1.3.3 JV/C and its members must jointly meet the qualification criteria in Section III – Qualification Criteria. The technical/ experience qualification of all JV/C members (substantial members, Lead member and non-substantial members) shall be evaluated jointly as per Evaluation Criteria. However, for financial criteria of qualification, credentials of substantial and lead members (excluding non-substantial members) shall only be considered.

1.3.3 All the members shall be jointly and severally liable for the entire contract if selected in the RFP Process.

1.3.4 In case a Joint Venture of firms, the proposal shall be accompanied by a certified copy of legally binding Memorandum of Understanding (MoU) on a stamp paper of Rs.100/- signed by all firms to the Joint Venture indicating role and share of the JV partners in the project as per eligibility conditions.

**1.4 Conflict of Interest**

1.4.1 Any consultant with a conflict of interest that substantially affects fair competition shall not be eligible to participate in this procurement process. RFPs found to have a conflict of interest shall be rejected as non-responsive. Consultant shall be required to declare the absence of such conflict of interest in Form 1.2 - Eligibility Declarations. A consultant in this procurement process shall be considered to have a conflict of interest if the consultant:

a) directly or indirectly controls, is controlled by or is under common control with another Consultant; or

b) receives or has received any direct or indirect subsidy/ financial stake from another consultant; or

c) has the same correspondence address or same legal representative/ agent as another consultant for purposes of this RFP; or

d) has a relationship with another consultant, directly or through common third parties, which puts it in a position to have access to information about or influence the RFP of another Consultant; or

e) would be providing goods, works, or non-consulting services resulting from or directly related to consulting services that it provided (or were provided by any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm) for the procurement planning (inter-alia preparation of feasibility/ cost estimates/ Detailed Project Report (DPR), design/ technical specifications, terms of reference (TOR)/ Activity Schedule/ schedule of requirements or the RFP Document etc) of this procurement process; or

f) has a close business or family relationship with a staff of the Procuring Organization

who:

i) are directly or indirectly involved in the preparation of the RFP document or Terms of Reference of the procurement process and/or the evaluation in RFP process; or

ii) would be involved in the implementation or supervision of the resulting contract Any conflict stemming from such a relationship must be reported and resolved in a manner acceptable to the Procuring Entity throughout the RFP processes and execution of the contract.

1.4.2 Participation of only One Entity from Affiliates: Only one entity from among a Consultant and its affiliates (that directly or indirectly control or are controlled by or are under common control with that firm) individually or as part of a joint venture shall be permitted to participate in RFP.

1.4.3 The consultant shall furnish information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this RFP process.

## 1.5 Qualification Criteria:-

| S. No. | Experience of the firm in last 7 years | | Annual Turnover*** |
|---|---|---|---|
| | **Preparation of DPR (NH/SH/Expressway)** | **Project Supervision/IC (NH/SH/Expressway)** | |
| 1 (a). | The firm should have minimum experience of preparation of detailed Project Report/ Feasibility Study cum Preliminary Design Report of 2/4/6**-laning/ Bridge project of aggregate length equal to length of Project or 50 km whichever is more, of similar category for which RFP is invited | The firm should have minimum experience of Project Supervision/ Independent Engineer/Authority Engineer/ PMC Consultant of 2/4/6**-laning/ Bridge project of aggregate length equal to 3 times or more of similar category** for which RFP is invited. | Annual turnover (updated average of last 3 years) of the firm from consultancy business related to civil Engineering projects should be equal to or more than 3%% of Estimated civil Project Cost for which AE is invited. |
| 1 (b) | | Firm should also have experience of Project Supervision/ Independent Engineer/Authority' Engineer/ PMC of at least one project of similar category of two/four/six** laning/bridge work of length equal to 40% of project length. | |
| | | Additional requirement in case of specialized projects*** | |

** Similar project means 2/4/6 lane project of Expressway/NH/SH standards and specification as applicable for the project for which RFP is invited. For 2-lane projects experience of 4/6 lane also to be considered with a multiplication factor of 1.5. Experience of 4/6 lane shall be considered interchangeably for 4/6 laning projects. For 4/6 laning projects, experience of 2 lane will be considered with a multiplication factor of 0.4, but only for those 2 lane projects whose cost of consultancy services was more than Rs.3.0 crores. For standalone bridge projects, experience in bridge work (either standalone project or as a part of road project) only be considered.

*** In case the project includes any specialized nature of work such as tunnels, specialized structures etc. in substantial quantum, this requirement may be suitably included.

Note:- Experience of only those projects, which has been awarded by Govt Agencies will be considered for calculating qualification under clause 1.5 above.

:

*Note to Consultant: During RFP Process, while original documents/ certificates are called for to*

*authenticate the qualification claimed, the following may be kept in mind:*

1) When a joint venture submits the bid, in that case, all members (other than non-substantial members) in the JV/C must submit their technical and financial statements in order of the member's share in the partnership, greatest to least. For determination of technical compliance, the figure of all members (Lead, substantial and non-substantial) shall be added to determine compliance with the minimum technical qualification. The figures of members of a JV/C (other than non-substantial members) shall be added to determine compliance with the minimum financial qualifying criteria. However, for JV/C to qualify, the Lead member must meet at least 50 percent of those technical/financial minimum criteria for an individual Bidder and other substantial members at least 25% of the technical/financial criteria. Failure to comply with this requirement shall result in the rejection of the JV/C's bid.
2) The weightage given for experience of a firm would depend on the role of the firm in the respective assignments. The firm's experience would get full credit if it was the sole firm in the respective assignment. If the applicant firm has completed projects as JV with some other firms, weightage shall be given as per the JV share***. However if the applicant firm has executed the project as associate/ non substantial partner with some other firms, weightage shall be given as per the Actual share subjected to maximum of 25% to the applicant firm for the projects completed under such association.

   *** For weightage of experience in any past Consultancy assignment, experience certificate from the client shall be submitted with clear demarcation of JV share in client certificate Annual turnover duly certified by Chartered Accountant shall be accepted. In case of non-availability of such documents no weightage of turnover/experience will be considered.
3) In case the financial figures and values of services provided are in foreign currency current market exchange rate (State Bank of India BC Selling rate as on last date of submission of the bid) will be applied for the purpose of conversion of amount in foreign currency into Indian Rupees.
4) The consultant shall submit the audited balance sheet and/or banking reference and certificate from Statutory Auditor with UDIN certifying that turnover is from civil engineering consultancy business with their RFP proposal. An authorised representative of the consultant must -sign the statement.

# Section II: Instructions to Consultants (ITC)

## 1. The RFP Document

1.1. This 'RFP Document' Document (hereinafter referred to as 'the RFP Document') details the terms and conditions for entering a contract for delivery of the Consultancy Services (hereinafter called 'the Services') described in Section VI: "Terms of Reference". The 'Services' may include incidental Goods, Works, and other Services if so indicated. In this RFP Document, any generic reference to 'Services' shall be deemed to include such incidental Goods, Works, and other Services. Proposals are invited from the Consultants meeting the criteria (hereinafter called 'the Consultants') as mentioned RFPL.

### 1.2 Interpretations, Definitions, Abbreviations and Document Conventions

Section IV: General Conditions of Contract (GCC), details tenets of interpretation (GCC-clause 1.1), definitions (GCC-clause 1.2), document conventions (GCC-clause 1.3) and abbreviations (GCC-clause 1.4), which shall also apply to the rest of the RFP Document.

### 1.3 Overview of Contents

1) Unless otherwise stipulated in AITC, the Sections, Forms and Formats comprising this RFP Document are described in ITC-clauses 1.4, 1.5 and 1.6 below. A separate BOQ file for Financial Proposal on the eProcurement Portal is also part of this RFP Document. Any generic reference to RFP Document shall also imply a reference to any/ all the sections, Forms, Formats and the BOQ file or other files that comprise this RFP Document.
2) Consultants must submit the Proposal in the Forms/ Formats mentioned in ITC-clauses 1.5 and 1.6 below (as relevant).

### 1.4 Sections of the RFP Document

#### 1.4.1 Sections of the RFP Document

Unless otherwise stipulated in AITC, the RFP Document contains the following sections, which are described in subsequent sub-clauses:

1) Section I: Request for Proposal Letter (RFPL) and its Appendix: Tender Information Summary (TIS)
2) Section II: Instructions to Consultants (ITC)
3) Section III: Appendix to Instructions to Consultants (AITC) 4) Section IV: General Conditions of Contract (GCC)
5) Section V: Special Conditions of Contract (SCC)
6) Section VI: Terms of Reference
    a) Section VI-A: List of Key Experts and Required Qualifications
7) Section VII: Evaluation/ Scoring Criteria

#### 1.4.2 Section I: Request for Proposal Letter (RFPL) and its Appendix: Tender Information Summary (TIS)

Section I – Request for Proposal Letter (RFPL) and its Appendix – Tender Information

Summary (TIS) provides a synopsis of information relevant for a Consultant to decide on participating in the RFP. Consultants must fill up 'Form T-7: Terms and Conditions - Compliance' regarding any proposed deviations from this Section.

### 1.4.3 Section II: Instructions to Consultants (ITC) and Section III: Appendix to Instructions to Consultants (AITC)

Section II: "Instructions to Consultants" (ITC), along with Section III: "Appendix to Instructions to Consultants (AITC)", provides the relevant information as well as instructions to assist the Consultants in preparing their proposals. It also includes the mode and procedure adopted for receipt/ opening, evaluation of Proposals, and contract award. In case of a conflict, provisions of AITC shall prevail over those in the ITC. Any generic reference to ITC shall also imply a reference to AITC as well. Consultants must fill up 'Form T-7: Terms and Conditions - Compliance' regarding any proposed deviations from these Sections.

### 1.4.4 Section IV: General Conditions of Contract (GCC) and Section V: Special Conditions of Contract (SCC)

Section IV – General Conditions of Contract (GCC) and Section V – Special Conditions of Contract (SCC) describe the conditions governing the resulting contract. In case of a conflict, provisions of the SCC shall prevail over those in the GCC. Any generic reference to GCC shall also imply a reference to SCC as well. In case of any conflict, provisions of GCC/ SCC shall prevail over those in ITC/ AITC. Consultants must fill up 'Form T-7: Terms and Conditions - Compliance' regarding any proposed deviations from terms and conditions in these Sections.

### 1.4.5 Section VI: Terms of Reference (TOR) and Section VI-A: List of Key Experts and Required Qualifications

Section VI: Terms of Reference describe the background, purpose/ objectives, description/ scope, deliverables/ outcomes, timelines, Procuring Entity's inputs and counterpart personnel, statutory requirements of Services required etc. Section VI-A: 'List of Key Experts and Required Qualifications' describes the team composition, expertise, experience and professional qualifications required for each Key Experts. Any generic reference to TOR shall imply a reference to Section VI-A: 'List of Key Experts and Required Qualifications' as well. Consultants must fill up 'Form T-3: Comments and Suggestions on Terms of Reference, Counterpart Staff, and Facilities to be provided by the Procuring Entity' regarding these Sections. Regarding this Section, Consultants must fill out Form T-3: Comments and Suggestions on Terms of Reference, Counterpart Staff, and Inputs to be provided by the Procuring Entity.

### 1.4.6 Section VII: Evaluation/ Scoring Criteria

1) Section VII – Evaluation/ Scoring Criteria stipulates the scoring scheme for evaluating various technical criteria. These may cover scoring of criteria relating to the Consultant's experience, Technical Approach and Methodology, understanding of requirements, qualification and experience of Key Experts, transfer of knowledge etc. It may also lay down a minimum technical score to qualify for the next stage of Financial Evaluation. In a specific evaluation scheme, instead of a scheme of scoring, a scheme may be laid down to evaluate criteria on a pass/ fail basis.

2) Consultants must fill up the following Forms regarding this Section:
    a) Form T-2: Consultant's Organisation and Experience and past performance
    b) Form 2-A Consultant's Technical Capacity
    c) Form T-3: Comments and Suggestions on Terms of Reference, Counterpart Staff, and Inputs to be Provided by the Procuring Entity
    d) Form T-4: Description of Approach, Methodology and Work Plan in Responding to the Terms of Reference
    e) Form T-5: Work Schedule and Planning for Deliverables
    f) Form T-6: Team Composition, Assignment, and Key Experts' Inputs
        i) Annex to Form T-6: Key Experts' Curriculum Vitae (CV)

**1.5 Forms (To be filled, digitally signed, and uploaded by Consultants)** Please refer to ITC-clause 1.4 above to relate the following forms to the corresponding Sections.

1) **Technical Proposal:**
    a) Form T-1: Proposal Form – (To serve as a covering letter to both the Techno-commercial and Financial Proposals)
    b) Form 1.2- Eligibility Declaration
    c) Form T-1A: Consultant's Commercial Information
    d) Form T-2: Consultant's Organisation and Experience
    e) Form T-2A:- Consultant Technical capacity
    f) Form T-3: Comments and Suggestions on Terms of Reference, Counterpart Staff, and Inputs to be Provided by the Procuring Entity
    g) Form T-4: Description of Approach, Methodology and Work Plan in Responding to the Terms of Reference
    h) Form T-5: Work Schedule and Planning for Deliverables
    i) Form T-6: Team Composition, Assignment, and Key Experts' Inputs
    j) Annex to Form T-6: Key Experts' Curriculum Vitae (CV)
    k) Form T-7: Terms and Conditions - Compliance
    l) Form T-8: Checklist for Consultants. The consultant must also upload the Checklist to confirm that he has complied with all the instructions in the RFP Document and that nothing is inadvertently left out. This checklist is only for general guidance, is not comprehensive, and does not absolve the Consultant from complying with all the requirements stipulated elsewhere in the RFP Document.
    m) Form T-9A: Bank Guarantee Format for Earnest Money Deposit
    n) Form T-9B: Bid Securing Declaration
    o) Form T-10: Integrity Pact
    p) Any other format/ Form if stipulated in AITC or considered relevant by the Consultant.

2) **Financial Proposal**

The financial proposal is to be submitted in a separate file available on the eProcurement Portal.

**1.6 Other Formats**

1) Format 1: Contract Form (Required after Letter of Award)
    a) Appendix A: Terms of Reference

b) Appendix B: Key Experts
c) Appendix C: Remuneration Cost Estimates
    i) Annex to Appendix C: Breakdown of Agreed Fixed Rates in Consultant's Contract
d) Appendix D: Reimbursable Expenses Cost Estimates
e) Appendix E-1: Bank Guarantee Format for Performance Security
f) Appendix E-2: Bank Guarantee Format for Advance Payment

2) Format 2: Certification by Prospective Arbitrators
3) Format 3: Authorisation to Attend Pre-Proposal Conference. (To be filled up, if required, by Consultant)

## 2. Procuring Entity - Rights and Disclaimers

### 2.1. The Procuring Entity

Proposals are to be addressed to the President of India through the Head of Procurement/ Chairman NHAI/ MD NHIDCL, Procuring Entity in the Procuring Organization (headed by the Head of the Procuring Organisation). The Tender Inviting Authority (TIA) is the designated officer for uploading and clarifying this RFP Document. The contract may designate, as required, a counterpart Contract Manager (or Contract Management Team); and Paying authority who shall discharge the designated function during contract execution.

### 2.2. Right to Intellectual Property and confidentiality:

1) The RFP Document and associated correspondence are subject to copyright laws and shall always remain the property of the Procuring Entity and must not be shared with third parties or reproduced, whether in whole or part, without the Procuring Entity's prior written consent.
2) However, Consultants may share these to prepare and submit their Proposals with their employees, Sub-consultant(s) or holding Company after obtaining an undertaking of confidentiality similar to that imposed on the Consultant.
3) This condition shall also apply to Consultants who do not submit a Proposal after downloading it or are not awarded a contract.
4) The obligation of the Consultants under sub-clauses above, however, shall not apply to information that:
    a) now or hereafter is or enters the public domain through no fault of Consultant;
    b) is legally possessed by consultant at the relevant time and was not previously obtained, directly or indirectly, from the Procuring Entity; or
    c) otherwise lawfully becomes available to Consultant from a third party with no obligation of confidentiality.
5) The provisions of this clause shall survive completion or termination for whatever reason of the Procurement Process or the contract.

### 2.3. Right to Reject any or all Proposals

The Procuring Entity reserves its right to accept or reject any or all Proposals, abandon/ cancel the Procurement Process, and issue another RFP for the same or similar Services before the award of the contract. It would have no liability to the affected Consultant(s) or any obligation to inform them of the grounds for such action(s).

### 2.4. Disclaimers

#### 2.4.1 Regarding the Purpose of the RFP Document

The RFP Document is neither an agreement nor an offer to the prospective Consultant(s) or any other party. The purpose of the RFP Document is to provide the Consultant(s) with information to assist them in participation in this Procurement Process.

#### 2.4.2 Regarding Documents/ guidelines

The RFP Document, ensuing communications, and Contracts shall determine the legal and commercial relationship between the Consultants and the Procuring Entity. No other Government or Procuring Entity's document/ guidelines/ Manuals, including its Procurement Manual (for internal and official use of its officers), notwithstanding any mention thereof in the RFP Document, shall have any locus-standii in such a relationship. Therefore, such documents/ guidelines/ Manuals shall not be admissible in legal or dispute resolution or grievance redressal proceedings.

#### 2.4.3 Regarding Information Provided

Information contained in the RFP Document or subsequently provided to the Consultant(s) is on the terms and conditions set out in the RFP Document or subject to which that was provided. Similar terms apply to information provided verbally, in the documentary, or any other form, directly or indirectly, by the Procuring Entity, its employees, or associated agencies.

#### 2.4.4 Regarding RFP Document:

1) The RFP Document does not purport to contain all the information Consultant(s) may require. It may not address the needs of all Consultants. They should conduct due diligence, investigation, and analysis, check the information's accuracy, reliability, and completeness, and obtain independent advice from appropriate sources. Information provided in the RFP Document to the Consultant(s) is on various matters, some of which may depend upon interpreting the law. The information given is not an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The Procuring Entity, its employees and other associated agencies accept no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.
2) The Procuring Entity, its employees and other associated agencies make no representation or warranty for the accuracy, adequacy, correctness, completeness or reliability of any assessment, assumption, statement, or information in the RFP Document. They have no legal liability, whether resulting from negligence or otherwise, for any loss, damages, cost, or expense arising from/ incurred/ suffered, howsoever caused, to any person, including any Consultant, on such account.

## 3. Consultants – Participation in this RFP process

### 3.1. Eligibility to Participate

1) Consulting firms meeting the eligibility criteria as mentioned in Appendix- 1 to Tender Information Summary (TIS) are only eligible for applying for this assignment. Firms not meeting these criteria, need not apply.

2) **Participation in only one Proposal:** The Consultant shall not participate in more than one Proposal in this RFP Process. Participation in any capacity by a Consultant (including

the participation of a Consultant as a Sub-consultant or as a member of a JV/C or vice-versa) in more than one Proposal shall result in the disqualification of all Proposals in which he is a party. A Consultant shall not be allowed to participate both as an individual Consultant and as a part of the joint venture

### 3.2. Conflict of Interest

The Consultant must provide professional, objective, and impartial advice, holding the Procuring Organisation's interests paramount at all times, and shall not try to get benefits beyond the legitimate payments and credentials in the contract. He should strictly avoid conflicts with other assignments or their corporate interests. Consultants must disclose to the Procuring Entity in Form T-1 'Proposal Form (Covering Letter)' any actual or potential conflict that impacts its capacity to serve the best interest of the Procuring Organisation. Failure to disclose such situations shall be treated as a violation of the Code of Ethics (ITC-Clause 15) and shall attract penalties mentioned therein. Proposals found to have a conflict of interest shall be rejected as non-responsive. Without limitation on the generality of the preceding, a Consultant in this Procurement Process shall be considered to have a conflict of interest if the Consultant:

1) **Conflicting Associations:-**
    a) directly or indirectly controls, is controlled by or is under common control with another Consultant; or
    b) receives or has received any direct or indirect subsidy/ financial stake from another Consultant; or
    c) has the same correspondence address or same legal representative/ agent as another consultant for purposes of this proposal; or
    d) has a relationship with another Consultant, directly or through common third parties, that puts it in a position to have access to information about or influence the Proposal of another Consultant or influence the decisions of the Procuring Entity regarding this Procurement Process; or
2) **Unfair Competitive Advantage and Conflicting Activities:** had (or any of its Affiliates) been engaged by the Procuring Entity to provide goods, works, or services for a project, shall be disqualified from providing consulting services resulting from or directly related to those goods, works, or services. Conversely, a firm (or any of its Affiliates) hired to provide consulting services for the preparation or implementation of a project shall be disqualified from subsequently providing goods or works or services resulting from or directly related to the consulting services for such preparation or implementation.
3) **Conflicting Assignments:** would (including its Experts and Sub-consultants) or any of its Affiliates) be or are providing consultancy services in another assignment for the same or another Procuring Entity that, by its nature, may conflict with this assignment.
4) **Commissions and Gratuities**: The Consultant shall disclose any commissions or fees that may have been paid or are to be paid to agents, representatives, or commission agents concerning the selection process or execution and performance of the resulting Contract. The information disclosed must include the name and address of the agent, representative, or commission agent, the amount and currency, and the purpose of the commission or fee.
5) **Conflicting Relationships:** has close business/ family relationship with a staff of the Procuring Organisation who are/ would be directly/ indirectly involved in any of the

following activities:

a) preparation of the RFP document or TOR of the Procurement Process
b) evaluation of Proposals or award of Contract, or
c) implementation/ supervision of the resulting Contract

# 4. The Terms of Reference (TOR) and Form of Contract

### 4.1 Facilities to be provided by the Procuring Entity

All inputs, relevant project data, and reports required for preparing the Consultant's Proposal shall be included in the TOR. Unless otherwise stipulated in the TOR, utilities or facilities (e.g., Rooms, Furniture, Transport, and Access to IT Services etc.) shall NOT be provided by the Procuring Entity to the Consultant.

### 4.2 Forms of BOQ/ Contract and Selection Methods

Evaluation of Proposals and the resulting Contract shall be based on the form of BOQ/ Contract and the Selection method applicable for the RFP, as elaborated in ITC-Clause 11 and 12 below.

#### 4.2.1 Time-Based (Inputs Admeasurement) form of BOQ/ Contract:

Unless otherwise stipulated in the TIS form of BOQ/ Contract shall be 'Time-Based (Inputs Admeasurement)'. In such contracts, the Consultant shall provide services on a timed basis according to the Terms of Reference. The Consultant's remuneration shall be determined based on the time spent by the Consultant in carrying out the Services based on (i) agreed-upon unit rates for the Consultant's experts multiplied by the actual time spent by the experts in executing the assignment and (ii) reimbursable expenses using actual expenses and/or agreed unit prices.

#### 4.2.2 Selection Method

4.2.2.1 Unless otherwise specified in TIS, the selection method applicable in this RFP shall be Quality and Cost Basis Selection (QCBS).

4.2.2.2 Please refer to ITC-Clause 11 and 12 for details.

### 4.3 Inputs of Key Experts

4.3.1 Consultant shall not propose alternative Key Experts. Only one CV shall be submitted for each Key Expert position. Failure to comply with this requirement shall make the Proposal non-responsive.

# 5. Proposal Prices, Taxes and Duties

## 5.1. Prices

### 5.1.1 Competitive and Independent Prices

a) The prices should be arrived at independently, without restricting competition, any consultation, communication, or agreement with any other Consultant or competitor relating to:
   i) those prices; or
   ii) the intention to submit an offer; or
   iii) the methods or factors used to calculate the prices offered.

b) The prices should not be knowingly disclosed by the Consultant, directly or indirectly, to any other Consultant or competitor before the Financial Proposal opening unless otherwise required by law.

### 5.1.2 Price Components

Consultant shall indicate in the Price Schedule prices/ rates against all the specified components, including the unit prices and total Proposal prices.

### 5.1.3 Price Schedule

1) Consultants are to upload only the downloaded BOQ (in excel format) after entering the relevant fields without any alteration/ deletion/ modification of other portions of the excel sheet. All the columns in the price schedule should be filled up as required. If any column does not apply to a Consultant, he should clarify the same.
2) Consultants shall fill in rates other than zero value in the specified cells without leaving them blank.
3) The quoted price shall be considered to include all relevant financial implications, including inter-alia the scope of the Services to be delivered and the incidental goods/ works to be supplied, location of the Consultant, site(s) of the delivery of Services, terms of delivery, extant rules and regulations relating to taxes, duties, customs, transportation, environment, labour, Mining & Forest of the Consultant's country and in India.

### 5.1.4 Provisions of GST

1) Break up of different price elements, i.e., as per GST Act, shall be indicated separately, along with its associated HSN code and GST rate.
2) While quoting the basic rate, the Consultant should offset the input credit available as per the GST Act.
3) Please refer to ITC-Clause 5.3 for further details.

### 5.1.5 Currencies of Proposal and Payment

1) Unless otherwise stipulated in the AITC, the Consultant's currency of Proposal and payment shall be quoted entirely in Indian Rupees. All payments shall be made in Indian Rupees only.
2) Where the AITC permits quotations in different currencies, then, for Services performed in or sourced from India, prices shall be quoted in Indian rupees only, and for Services performed from foreign locations, prices shall be quoted in Indian rupees or the currency stipulated in the AITC. For evaluation, all quoted prices shall be converted into Indian Rupees as per the procedure mentioned in ITC-clause 11.4.2 below.

### 5.1.6 Non-compliance

Tenders, where prices are quoted in any other way, shall be rejected as nonresponsive.

## 5.2. Firm/ Variable Price

### 5.2.1 Firm Price

Unless otherwise stipulated in the AITC, prices quoted by the Consultant shall remain firm and fixed during the currency of the contract and not subject to variation on any account.

### 5.2.2 Price Variation Clause:

1) In case the RFP Documents require/ permit offers on a variable price basis, the price quoted by the Consultants shall be subject to adjustment during the original delivery period to take care of the changes in the input cost of labour, material, and fuel/ power components under the price variation formula as stipulated in the RFP Document.

## 5.3. Taxes

The Consultant and its Sub-consultants and Experts are responsible for meeting all tax liabilities arising from the Contract.

### 5.3.1 GST Registration Status:

1) All the Consultants should ensure that they are GST compliant and that their quoted tax structure/ rates are as per GST Act/ Rules. Consultants should be registered under GST and furnish a GSTIN number and GST Registration Certificate in their offer unless they are specifically exempted from registration under a specific notification/ circular/ section/ rule issued by statutory authorities.
2) **GST Registration Number (15-digit GSTIN**). If the Consultant has multiple business verticals in a state and has separate registration for each vertical, the GSTIN of each vertical concerned with the service delivery shall be quoted. If the services provided are from multiple states, the Consultant should mention GST registration numbers for each state separately.
3) **Composition scheme:** If the Consultant has opted for a composition levy under Section 10 of CGST, he should declare the fact while bidding along with GSTIN and GST registration certificate.
4) **Exemption from Registration**: If a Consultant is not liable to take GST registration, i.e., having turnover below threshold, he shall submit undertaking/ indemnification against tax liability. Consultant claiming exemption in this respect shall submit a valid certificate from practicing Chartered Accountant (CA)/ Cost Accountant with Unique Document Identification Number (UDIN) to the effect that Consultant fulfils all conditions prescribed in notification exempting him from registration. Such Consultant/ dealer shall not charge any GST and/ or GST Cess in the bill/ invoice. In such case, applicable GST shall be deposited under Reverse Charge Mechanism (RCM) or otherwise as per GST Act by the Procuring Entity directly to concerned authorities. The consultant should note that his offer would be loaded with the payable GST under the RCM. Further, the Consultant should notify and submit to the Procuring Entity within 15 days of becoming liable for registration under GST.

### 5.3.2 HSN Code and GST Rate:

1) If provided in this RFP Document, the HSN (Harmonized System of Nomenclature) code shall be only indicative. It shall be the responsibility of the Consultant to ensure that they quote the exact HSN Code and corresponding GST rate for each activity of the Services being offered by them
    a) As per the GST Act, the Proposal and contract must show the GST Tax Rates (and GST Cess if applicable) and GST Amount explicitly and separately from the Proposal/ contract price (exclusive of GST).

2) **Applicability to Imported Goods/ Services:** If imported into India, the supply of commodities, services, or both shall be considered as supply under inter-state commerce/ trade and shall attract integrated tax (IGST). The IGST rate and GST cess shall be applicable on the 'Custom assailable Value' plus the 'Basic Customs duty applicable thereon'.

### 5.4. Payments

#### 5.4.1 General

Unless otherwise stipulated in AITC, the usual payment term is 100% on delivery and acceptance of Services at 'the Site' by the Procuring Entity and production of all required documents. However, periodic "On Account" payments shall be made unless otherwise stipulated as per the procedure laid down in GCC.

#### 5.4.2 No Advance Payments

Unless otherwise stipulated in AITC, the Procuring Entity shall make no advance payment of any type (Mobilization, secured advances, etc.). If AITC does stipulate advance payments, these shall be subject to conditions stipulated therein.

## 6. Downloading the RFP Document; Corrigenda and Clarifications

### 5.1. Downloading the RFP Document

The RFP document can be downloaded as per the details given in RFPL clause 2.2.

### 5.2. Corrigenda/ Addenda to RFP Document

1) Before the deadline for submitting Proposals, the Procuring Entity may update, amend, modify, or supplement the information, assessment or assumptions contained in the RFP Document by issuing corrigenda and addenda. The corrigenda and addenda shall be published in the same manner as the original RFP Document. Without any liability or obligation, the Portal may send intimation of such corrigenda/ addenda to Consultants who have downloaded the document under their login. However, the Consultants must check the website(s) for any corrigenda/ addenda. Any corrigendum or addendum thus issued shall be considered a part of the RFP Document.
2) To give reasonable time to the prospective Consultants to take such corrigendum/ addendum into account in preparing their Proposals, the Procuring Entity may suitably extend the deadline for the Proposal submission as necessary. After the procuring entity makes such modifications, any Consultant who has submitted his Proposal in response to the original invitation shall have the opportunity to either withdraw his Proposal or re-submit his Proposal superseding the original Proposal within the extended time of submission as per ITC-clause 9.4.1 below.
3) The Procuring Entity may extend the deadline for the RFP submission by issuing an amendment. In this case, all rights and obligations of the Procuring Entity and the consultants previously subject to the original deadline shall then be subject to the new deadline for the RFP submission.

### 5.3. Clarification of the RFP Document

As detailed in RFPL clause 2.3, a Consultant requiring any clarification regarding the RFP Document may seek clarification through the eProcurement Portal. The Procuring

Entity shall respond no later than seven days before the deadline for RFP submission. The query and clarification shall be shared with all Consultants on the portal without disclosing its source. If a modification of the RFP document is warranted due to such clarification, an addendum/ corrigendum shall be issued as per ITC-Clause 6.2 above.

# 7. Pre-Proposal Conference

1) If a Pre-Proposal conference is stipulated in the TIS, prospective Consultants interested in participating in this tender may attend a Pre-Proposal conference to clarify the techno- commercial conditions of the RFP at the venue, date and time specified therein.
2) Participation is not mandatory: However, if a Consultant chooses not to (or fails to) participate in the Pre-Proposal conference or does not submit a written query, it shall be assumed that they have no issues regarding the techno-commercial conditions.
3) The date and time by which the written queries for the Pre-Proposal must reach the authority and the last date for registration for participation in the Pre-Proposal conference are also mentioned in the TIS. If the dates are not mentioned, such date and time shall be 7 days before the date and time of the pre-Proposal conference.
4) Delegates participating in the Pre-Proposal conference must provide a photo identity and an authorization letter as per Format 3: "Authorization to attend a Pre-Proposal Conference" from their Company/ principals; else, they shall not be allowed to participate. The pre-Proposal conference may also be held online at the discretion of the Procuring Entity.
5) After the Pre-Proposal Conference, Minutes of the Pre-Proposal conference shall be published on the Procuring Entity's portal within seven days from the Pre-Proposal Conference. If required, a clarification letter and corrigendum to RFP Document shall be issued, containing amendments to various provisions of the RFP Document. As per ITC-clause 6.2 above, to give reasonable time to the prospective Consultants to consider such clarifications in preparing their Proposals, the Procuring Entity may suitably extend, as necessary, the deadline for the Proposal submission.

# 8. Preparation of Proposals

## 8.1. The Proposal

### 8.1.1 Language of the Proposal

Unless otherwise stipulated in the AITC, the Proposal submitted by the Consultant and all subsequent correspondence and documents relating to the Proposal exchanged between the Consultant and the Procuring Entity shall be written in the language specified in the AITC /SCC (hereinafter referred to as the 'Proposal Language'. If nothing is specified, the language shall be English). However, the language of any printed literature furnished by the Consultant in connection with its Proposal may be written in any other language provided a certified translation accompanies it in the Proposal language. For purposes of interpretation of the Proposal, translation in the language of the Proposal shall prevail.

### 8.1.2 Acquaintance with Local Conditions and Factors

At his own cost, responsibility, and risk, the Consultant is encouraged to visit, examine, and familiarise himself with the local conditions and factors. The Consultant acknowledges that before the submission of the Proposal, he has, after a complete and careful examination, made an independent evaluation of the local conditions, infrastructure, logistics, communications, legal, environmental, and any other conditions or factors which would have any effect on the performance of the contract. Consultants shall be responsible for compliance with Rules, Regulations, Laws and Acts in force from time to time at relevant places. On such matters, the Procuring Entity shall have no responsibility and not entertain any request from the Consultants.

### 8.1.3 Cost of preparation and submission of Proposals

The Consultant(s) shall bear all direct or consequential costs, losses and expenditures associated with or relating to the preparation, submission, and subsequent processing of their Proposals, including but not limited to preparation, copying, postage, delivery fees, expenses associated with any submission of samples, demonstrations, or presentations which the Procuring Entity may require, or any other costs incurred in connection with or relating to their Proposals. All such costs, losses and expenses shall remain with the Consultant(s), and the Procuring Entity shall not be liable in any manner whatsoever for the same or any other costs, losses and expenses incurred by a Consultant(s) for participation in the Procurement Process, regardless of the conduct or outcome of the Procurement Process.

### 8.1.4 Interpretation of Provisions of the RFP Document

The RFP document's provisions must be interpreted in the context in which these appear. Any interpretation of these provisions far removed from such context, contrived, or between-the-lines interpretation is unacceptable.

### 8.1.5 Alternate Proposals are not allowed.

Unless otherwise stipulated in the AITC, conditional offers, alternative offers, and multiple Proposals by a Consultant shall not be considered. The Portal shall permit only one Proposal to be uploaded.

## 8.2. Documents comprising the Proposal:

### 8.2.1 Techno-commercial Proposal/ Cover

"Technical Proposal" shall include inter-alia the scanned copies of duly signed or digitally signed copies of forms as per ITC-Clause 1.6 in pdf format. ***The Technical Proposal shall not include any financial information. A Technical Proposal containing material financial information shall be declared non-responsive.***

### 8.2.2 Financial Proposal/ Cover

"Financial Proposal" shall comprise the Price Schedule (Submitted separately as an excel sheet) available on the eProcurement Portal. Any additional information may be uploaded as a pdf under "Additional Documents" in the "Proposal Cover Content." It should be filled considering all financially relevant details, including Taxes and Duties,

as per ITC-clause 5.3. It shall list all costs associated with the assignment, including (a) remuneration for Key Experts and Non-Key Experts, (b) reimbursable expenses in the RFP Document. *No additional technical details which have not been brought out in the Technical Proposal shall be brought out in the Financial Proposal. A Financial Proposal containing material Technical Information not disclosed in the Technical Proposal shall be declared non-responsive.*

### 8.3. Proposal Validity

1) Unless specified to the contrary in the TIS, Proposals shall remain valid for a period not less than 100 days from the deadline for the Proposal submission stipulated in TIS. A Proposal valid for a shorter period shall be rejected as non-responsive.
2) In case the day upto which the Proposals are to remain valid falls on/ subsequently declared a holiday or closed day for the Procuring Entity, the Proposal validity shall automatically be deemed to be extended upto the next working day.
3) In exceptional circumstances, before the expiry of the original time limit, the Procuring Entity may request the Consultants to extend the validity period for a specified additional period. The request and the Consultants' responses shall be made in writing or electronically.
    a) The Consultant has the right to refuse to extend the validity of its Proposal, in which case such Proposal shall not be further evaluated.
    b) If the Consultant agrees to extend the validity of its Proposal, it shall be done without any change in the original Proposal and with the confirmation of the availability of the Key Experts.
    c) If any Key Experts become unavailable for the extended validity period, the Consultant shall seek permission to substitute another Key Expert. The Consultant shall provide adequate written justification and evidence to the Procuring Entity with the substitution request. In such case, a substitute Key Expert shall have equal or better qualifications and experience than the originally proposed one. The technical evaluation score, however, shall remain based on the evaluation of the CV of the original Key Expert.
    d) If the Consultant fails to provide a substitute Key Expert with equal or better qualifications, or if the provided reasons for the replacement or justification are unacceptable to the Procuring Entity, such Proposal shall be rejected.

### 8.4. Bid Security - Related Documents

1) **EMD/ BSD as Bid Security:** The Consultant shall provide Bid Security as Earnest Money Deposit (EMD) for the amount shown in the TIS (or if permitted in TIS, a Bid Securing Declaration as Form T-9B in lieu of EMD).
2) **Modalities of EMD:** Unless otherwise provided in TIS, the earnest money shall be denominated in Indian Rupees. Wherever relevant, it shall be in favour of the Account specified in TIS and shall be furnished in one of the following modalities valid for forty-five days beyond the validity of the proposal:
    a) E- Bank Guarantee
    b) Insurance Surety Bonds
    c) Account Payee Demand Draft or
    d) Fixed Deposit Receipt or
    e) Banker’s cheque

f) Bank Guarantee from/ confirmed by any of the commercial banks in the format specified in Form T-9A, or

g) Payment online in an acceptable form

3) **Forfeiture of EMD (Enforcement of BSD):** EMD shall be forfeited (or in case BSD is permitted, the declaration[2] shall be enforced from the date of such decision) if the Consultant breaches any of the following obligation(s) under the RFP:

(a) withdraws or amends his Proposal or impairs or derogates from the Proposal in any respect within the period of validity of its Proposal; or

(b) after having been notified within the period of Proposal validity of the acceptance of his Proposal by the Procuring Entity:

i) refuses to or fails to submit the original documents for scrutiny or the required Performance Security within the stipulated time as per the RFP document's conditions.

ii) fails or refuses to sign the contract.

4) **Return of EMD (Expiry of BSD):** Unsuccessful Consultants' EMD shall be returned to them without any interest (or if BSD is permitted, it shall stand expired) not later than thirty days after the conclusion of the resultant contract. Successful Consultant's EMD shall be returned without any interest (or if BSD is permitted, it shall stand expired) after receipt of performance security from them.

## 9. Signing and Uploading Proposals

### 9.1. Relationship between Consultant and eProcurement Portal

The Procuring Entity is neither a party nor a principal in the relationship between the Consultant and the organisation hosting the e-procurement portal (hereinafter called the Portal). Consultants must comply with the rules, regulations, procedures, and implied conditions/ agreements of the eProcurement portal, including registration, compatible Digital Signature Certificate (DSC) etc. Consultants shall settle clarifications and disputes, if any, regarding the Portal directly with them. In case of conflict between provisions of the Portal with the RFP Document, provisions of the Portal shall prevail. Consultants may study the resources provided by the Portal for Consultants.

### 9.2. Signing of Proposal

The individual signing/ digitally signing the Proposal or any other connected documents should submit an authenticated copy of the document(s), which authorizes the signatory

*[2] The BSD provides for automatic suspension of the Consultant (all members individually and jointly in case of JV/C) from being eligible for bidding in any procurement in the Ministry/ Department of Procuring Organization for 2 years from the date of such enforcement.*

to commit and submit Proposals on behalf of the Consultant along with Form T-1: Proposal Form (Covering Letter).

9.3. **Submission/ uploading of Proposals**.

9.3.1 **Submission/ Uploading to the Portal**

Further to details mentioned in RFPL clause 6:

1) Proposals must be uploaded on the eProcurement Portal mentioned in the TIS until the deadline for the Proposal submission as notified therein. If the office happens to be closed on the deadline to submit the Proposal as specified above, this deadline shall not be extended. No manual Proposals shall be made available or accepted for submission. Proposals submitted through modalities other than those stipulated in TIS shall be liable to be rejected as non-responsive.
2) In the case of downloaded documents, the Consultant must not make any changes to the contents of the documents while uploading, except for filling in the required information– otherwise, the Proposal shall be rejected as non-responsive. Uploaded Pdf documents should not be password protected. Consultants should ensure the clarity/ legibility of the scanned documents uploaded by them.
3) The date and time of the e-Procurement server clock (also displayed on the dashboard of the consultants) shall be the reference time for deciding the closing time of the Proposal submission. Consultants are advised to ensure they submit their Proposal within the deadline of submission, taking the server clock as a reference, failing which the portal shall not accept the Proposal. No request on the account that the server clock was not showing the correct time and that a particular consultant could not submit their Proposal because of this shall be entertained. Failure or defects on the internet or heavy traffic at the server shall not be accepted as a reason for a complaint. The Procuring Entity shall not be responsible for any failure, malfunction or breakdown of the electronic system used during the e-Tender process.
4) Only one copy of the Proposal can be uploaded, and the Consultant shall digitally sign all statements, documents, and certificates uploaded by him, owning sole and complete responsibility for their correctness/ authenticity as per the IT Act 2000 as amended from time to time. A proposal submitted by a Joint Venture shall be digitally signed by an authorized representative with a written power of attorney signed by each member's authorized representative to legally bind all members.
5) Unless otherwise instructed in the RFP Document, the consultant need not sign or upload the Sections in ITC-clause 1.4 above while uploading his Proposal. However, they must declare in his Proposal Form (Form T-1: Proposal Form) that they have read, understood, complied with, and stand bound by all requirements of these sections:
6) Unless otherwise specified, in TIS, originals of the EMD/ Bid Security instrument/ Bid security declaration must be physically submitted sealed in double cover and acknowledgement be obtained before the bid submission deadline at the venue mentioned in TIS. Failure to do so is likely to result in the bid being rejected. If the office is closed on the deadline for such physical submission, the physical submission deadline shall stand extended to the next working day at the same time and venue.
7) The Procuring Entity reserves its right to call for verification, at any stage of evaluation, especially from the successful Consultant(s) before the issue of a Letter of

Award (LoA), originals of uploaded scanned copies of documents (in the RFP stages). If a consultant fails at that stage to provide such originals or, in case of substantive discrepancies in such documents, it shall be construed as a breach of the Code of Integrity (see clause 15 below). Such RFP proposals shall be liable to be rejected as non-responsive and other punitive actions for such a breach.

8) Regarding the protected Price Schedule (excel format, Cover-2), the Consultant shall only enter his name in the space provided in the specified location. Consultant shall type rates in the figure only in the rate column of respective service(s) without any blank cell or Zero values in the rate column, without any alteration/ deletion/ modification of other portions of the excel sheet. If space is inadequate, the Consultant may upload additional documents under "Additional Documents" in the "Proposal Cover Content."
9) All Proposals uploaded by the Consultant to the portal shall get automatically encrypted. The encrypted Proposal can only be decrypted/ opened by the authorised persons on or after the due date and time. The Consultant should ensure the correctness of the Proposal before uploading and take a printout of the system-generated submission summary to confirm the successful Proposal upload.
10) The selected bidder shall use he Link Data Lake Portal' available on website to communicate with Authority and EPC Contractor correspondence.
11) No Physical document shall be accepted unless and until the same is specifically stated so in the RFP or it is a legal requirement

#### 9.3.2 Implied acceptance of procedures by Consultants

Submission of Proposal in response to the RFP Document is deemed to be acceptance of the procedures and conditions of e-Procurement and the RFP Document.

### 9.4. Modification, Resubmission and Withdrawal of Proposals

#### 9.4.1 Modification & Resubmission

Once submitted in e-Procurement, the Consultant cannot view or modify his Proposal since it is locked by encryption. However, resubmission of the Proposal by the Consultants for any number of times superseding earlier Proposal(s) before the submission date and time is allowed. Resubmission of a Proposal shall require uploading all documents, including the financial Proposal, afresh. The system shall consider only the last Proposal submitted.

#### 9.4.2 Withdrawal

1) The Consultant may withdraw his Proposal before the Proposal submission deadline, and it shall be marked as withdrawn and shall not get opened during the Proposal opening.
2) No Proposal should be withdrawn after the Proposal submission deadline and before the Proposal validity period expires. If a Consultant withdraws the Proposal during this period, the Procuring Entity shall be within its right to forfeit the Bid Security (or enforce the Bid Securing Declaration, if it was allowed in lieu of Bid
Security), in addition to other punitive actions provided in the RFP Document for such misdemeanour as per clause 8.4 above.

## 10. Proposal Opening

The Proposals shall be opened on or after the date & time of the opening stipulated in TIS.

Proposals cannot be opened before the specified date & time, even by the Tender Inviting Officer, the Procurement Officer, or the Publisher. If the specified date of Proposal opening falls on is subsequently declared a holiday or closed day for the Procuring Entity, the Proposals shall be opened at the appointed time on the next working day.

# 11. Evaluation of Proposals and Award of Contract

## 11.1. General norms

### 11.1.1 **Evaluation is based only on declared criteria**.

1) The evaluation shall be based upon scrutiny and examination of all relevant data and details submitted by the Consultant in its/ his Proposal and other allied information deemed appropriate by Procuring Entity. Evaluation of Proposals shall be based only on the criteria/ conditions included in the RFP Document. The Selection Method to be used for evaluation shall be QCBS as mentioned in the TIS.
2) The determination shall not consider the qualifications of other firms, such as the consultant's subsidiaries, parent entities, affiliates, or any other firm(s) different from the consultant.
3) Consultants planning to subcontract any Key Activities indicated in Section VI: terms of Reference and its sub-sections must ensure compliance with ITC-Clause 3 above.
4) Information relating to the evaluation of RFPs and evaluation results shall not be disclosed to any participant or any other persons not officially concerned with such process until the notification of shortlisting is made in accordance with clause 13.1 below.

### 11.1.2 Deviations/ Reservations/ Omissions - Substantive or Minor

1) During the evaluation of Proposals, the following definitions apply:
   a) "Deviation" is a departure from the requirements specified in the RFP Document;
   b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the RFP Document; and
   c) "Omission" is failing to submit part or all of the information or documentation required in the RFP Document.
2) A deviation/ reservation/ omission from the requirements of the RFP Document shall be considered a substantive deviation as per the following norm, and the rest shall be considered a Minor deviation:
   a) which affects in any substantive way the scope, quality, or performance standards of the Services;
   b) which limits in any substantive way, inconsistent with the RFP Document, the Procuring Entity's rights, or the Consultant's obligations under the contract; or
   c) Whose rectification would unfairly affect the competitive position of other Consultants presenting substantively responsive Proposals.
3) The decision of the Procuring Entity shall be final in this regard. Proposals with substantive deviations shall be rejected as non-responsive.
4) Variations, deviations, and other offered benefits (Techno-commercial or Financial) above the scope/ quantum of Services stipulated in the RFP Document shall not influence evaluation Proposals. If the Proposal is otherwise successful, such benefits shall be availed by the Procuring Entity, which would become part of

the contract.

5) The Procuring Entity reserves the right to accept or reject Proposals with minor deviations. Wherever necessary, the Procuring Entity shall convey its observation as per ITC-clause 11.1.3 below on such 'minor' issues to the Consultant by registered/ speed post/ electronically etc., asking Consultant to respond by a specified date. If the Consultant does not reply by the specified date or gives an evasive reply without clarifying the point at issue in clear terms, that Proposal shall be liable to be rejected as non-responsive.

**11.1.3 Clarification of Proposals and shortfall documents**

1) During the evaluation of Techno commercial or Financial Proposals, the Procuring Entity may, at its discretion, but without any obligation to do so, ask the Consultant to clarify its Proposal by a specified date. The consultant should answer the clarification within that specified date (or, if not specified, 7 days from receiving such a request). The request for clarification shall be submitted in writing or electronically, and no change in prices or substance of the Proposal shall be sought, offered, or permitted that may grant any undue advantage to such Consultant. Any clarification submitted by a Consultant regarding its Proposal that is not in response to a request by the Purchasing Entity shall not be considered.
2) The Procuring Entity reserves its right to, but without any obligation to do so, seek any shortfall information/ documents only in case of historical documents which pre-existed at the time of the Proposal Opening and which have not undergone change since then and do not grant any undue advantage to any Consultant. There is a provision on the portal for requesting Short-fall documents from the Consultants. The system allows taking the shortfall documents from consultants only once after the technical Proposal opening.
3) If the consultant fails to provide satisfactory clarification and/or missing information, its RFP shall be evaluated based on available information and documents.

**11.1.4 Contacting Procuring Entity during the evaluation**

From Proposal submission to awarding of the contract, no Consultant shall contact the Procuring Entity on any matter relating to the submitted Proposal. If a Consultant needs to contact the Procuring Entity for any reason relating to this tender and/ or its Proposal, it should do so only in writing or electronically. Any effort by a Consultant to influence the Procuring Entity during the processing of Proposals, evaluation, Proposal comparison or award decisions shall be construed as a violation of the Code of Integrity, and the Proposal shall be liable to be rejected as non-responsive in addition to other punitive actions for violation of Code of Integrity as per the RFP Document.

**11.2. Evaluation of Proposals**

**11.2.1 Preliminary Examination of Proposals - Determining Responsiveness** A substantively responsive Proposal is complete and conforms to the RFP Document's essential terms, conditions, and requirements without substantive deviation, reservation, or omission. Proposals with substantive techno-commercial deviations or other essential aspects of the RFP shall be rejected as non-responsive. Only substantively responsive Proposals shall be considered for further evaluation. Procuring entity reserves its right to consider and allow minor deviations in technical and Commercial Conditions. Unless

otherwise stipulated in the AITC, the following are some of the crucial aspects for which a Proposal shall be rejected as non-responsive:

1) The Proposal is not in the prescribed format or is not submitted as per the stipulations in the RFP Document.
2) Failure to provide and/ or comply with the required information, instructions etc., incorporated in the RFP Document or evasive information/ reply against any such stipulations.
3) Required Bid Security (EMD) (or Bid Securing Declaration BSD if permitted) has not been provided.
4) Consultant no longer complies with the eligibility criteria in the RFP;
5) The Services offered are not eligible as per the provision of this tender.
6) The consultant has quoted conditional Proposals or more than one Proposal or alternative Proposals unless permitted explicitly in the AITC.
7) The Proposal validity is shorter than the required period.
8) The Proposal departs from the essential requirements stipulated in the bidding document;
9) The consultant has quoted 'Nil' Service charges/ margin/overhead over the minimum wages
   in Personnel Deployment Schedule.
10) Non-submission or submission of illegible scanned copies of stipulated documents/ declarations.
11) Furnishing wrong and/ or misguiding data, statement(s) etc. In such a situation, besides rejecting the Proposal as non-responsive, it is liable to attract other punitive actions under relevant provisions of the RFP Document for violating the Code of Integrity.

#### 11.2.2 The evaluation process

Unless otherwise stated, only the techno-commercial Proposals shall be opened on the stipulated date of opening of Proposals. After that, the techno-commercial evaluation shall ascertain whether these Proposals meet the requirements of the Terms of Reference, Technical Criteria and Minimum Score. Subsequent opening of financial Proposals and financial evaluation shall be done only of Proposals declared successful in techno-commercial evaluation. The evaluators of the Technical Proposals shall have no access to the Financial Proposals until the technical evaluation results are declared and financial proposals are opened.

### 11.3. Techno-commercial Evaluation

#### 11.3.1 Evaluation of Technical Proposals/ Score

1) Procuring Entity shall evaluate the Technical proposal and assign scores as per the Scheme of criteria and sub-criteria as laid down in 'Section VII: Evaluation/ Scoring Criteria'. This determination shall, inter-alia, consider the Consultant's (i) "Specific experience of the Consultant (as a firm) relevant to the Assignment"; ii) "Adequacy and quality of the proposed methodology, and work plan"; iii) "Key Experts' qualifications and competence for the Assignment".
2) In the case of JV/C, the evaluation of the Technical proposal shall include the credentials of all members, including non-substantial members.
3) If it is established that any Key Expert nominated in the Consultant's Proposal was

included in the Proposal without his/her confirmation, such Proposal shall be disqualified and rejected for further evaluation and shall be treated as a violation of the Code of Ethics and would be liable for penalties thereunder.

4) All Key Experts (including the Team Lead) must meet the minimum requirements specified in Section VI-A: List of Key Experts and Required Qualifications. If any Key Expert fails to meet these minimum requirements, his score shall be evaluated as Nil. If any Key Expert or Team Lead of the successful consultant scores less than the ~~50%~~ 75% the maximum score, Procuring Entity shall be entitled to ask for a better replacement before the negotiations as per ITC-Clause 12 below.

**11.3.2 Evaluation of Conformity to Commercial and Other Clauses** Consultants must comply with all the Commercial and other clauses of the RFP Document as per submissions in Form T-7: 'Terms and Conditions – Compliance'. The Procuring Entity shall also evaluate the commercial conditions quoted by the Consultant
to confirm that all essential terms and conditions stipulated in the RFP Document have been accepted without substantive omissions/ reservations/exceptions/ deviation by the Consultant. Deviations from or objections or reservations to critical provisions such as those concerning (but not limited to) Governing laws and Jurisdiction (GCC Clause 3), Consultant's Obligations and Restrictions of its Rights (GCC Clause 5), Performance Bond/ Security (GCC Clause 5.8), Force Majeure (GCC Clause 9.6), Taxes & Duties (GCC Clause 10.2), and Code of Integrity (GCC Clause 13) shall be deemed to be a substantive deviation and treated as unresponsive as per clause 11.1.2 (3) above.

**11.3.3 Evaluation of Techno-commercially Suitable Consultants and Opening Financial Proposals**

Each responsive Proposal shall be given a technical score applying the evaluation criteria, sub-criteria, and scoring system specified in Section VII: Evaluation/ Scoring Criteria. A Proposal shall be rejected if it fails to achieve the minimum 70% technical score. Proposals that succeed in the above techno-commercial evaluation shall be considered techno-commercially suitable. The list of such techno-commercially suitable Consultants shall be declared on the Portal announcing a date/time and venue for opening their financial Proposals (not less than 10 days from this declaration, in line with ITC-Clause 14 below). The Procuring Entity shall notify all Consultants whether their proposal was found responsive/ non-responsive to the RFP and TOR and whether they met the minimum qualifying technical score. Financial proposals of successful Consultants only shall be opened online. The financial proposals of unsuccessful Consultants shall remain encrypted and unopened.

## 11.4. Financial Proposals Evaluation and Ranking of Proposals

### 11.4.1 Financial Proposals Evaluation

1) Financial Proposals of all Techno-commercially suitable Proposals are evaluated based on the selection method declared in the RFP Document (~~LCS~~/QCBS~~/FBS~~) and ranked accordingly. The financial proposal will be in 2 parts consisting of (i) the amount of Performance Bank Guarantee offered by the bidder, (ii) the financial quote of the services quoted by the bidder.
2) Unless otherwise stipulated, the evaluation of prices shall be on total outgo from the Procuring Entity's pocket, to be paid to the Consultant or any third party, including all

elements of costs as per the terms of the proposed contract, duly delivered, as the case may be, including any taxes, duties, levies etc.

3) In the case of JV/C, the financial credentials of non-substantial members shall not be considered in the financial evaluation.
4) As per policies of the Central Government, from time to time, the Procuring Entity reserves its option to give purchase preferences to eligible categories of Consultants as indicated in the RFP Document.
5) evaluation of Proposals shall include and consider the following taxes/ duties, as per ITC-clause 5.3 above:
    a) in the case of Services performed in India or incidental goods of foreign origin already located in India, GST & other similar duties shall be contractually payable on the Services and incidental Goods if a contract is awarded to the Consultant;
    b) The offers shall be evaluated based on the GST rate quoted by each consultant, and the same shall be used for determining the inter-se ranking. The Procuring Entity shall not be responsible for any misclassification of the HSN number or incorrect GST rate quoted by the Consultant. Any increase in GST rate due to misclassification of HSN number shall have to be absorbed by the supplier; and
    c) If GST is quoted extra but with the provision that it shall be charged as applicable at the time of delivery, the offer shall be evaluated for comparison purposes by loading the maximum existing rate of GST for the product/ HSN code.
    d) If a bidder enters "zero/blank" GST or an erroneous GST, the financial evaluation will be done considering the "Zero" or quoted GST rate, as the case may be. In cases where the successful bidder quotes the wrong GST rate for releasing the order, the following methodology will be followed:
        i) If the actual GST rate applicable is lower than the quoted GST rate, the actual GST rate will be added to the quoted basic prices. The final cash outflow will be based on the actual GST rate.
        ii) If the actual GST rate applicable is more than the quoted GST rate, the basic prices quoted will be reduced proportionately, keeping the final cash outflow the same as the overall quoted amount.
6) Correction Errors/ adjustments:
    a) Loading for Deviations: Unless announced beforehand, the quoted price shall not be loaded based on deviations in commercial conditions. If it is so declared, such loading of a financial Proposal shall be done as per the relevant provisions;
    b) Discrepancies between Technical and Financial Proposal:
        i) Activities and items described in the Technical Proposal but not priced in the Financial Proposal shall be assumed to be included in the prices of other activities or items, and no corrections are made to the Financial Proposal.
        ii) If a Lump-Sum contract selection method is declared in the RFP, the Consultant is deemed to have included all prices in the Financial Proposal, so neither arithmetical corrections nor price adjustments shall be made.

iii) If a Time-Based contract selection method is declared in the RFP, in case of discrepancy between the Technical and Financial Proposals in indicating quantities of input, any higher quantities in Technical Proposal shall prevail, and the quoted total prices shall be assumed to apply to this higher quantum. The unit rate for such activity shall be accordingly adjusted. No such correction shall be done if quantities are lower in the Technical proposal.

c) **Discounts and Rebates:** If any Consultant offers conditional discounts/ rebates in his Proposal or suo-motu discounts and rebates after the Proposal Opening (techno-commercial or financial), such rebates/ discounts shall not be considered for ranking the offer. But if such a Consultant gets selected as per the selection method, without discounts/ rebates, such discounts/ rebates shall be availed and incorporated in the contracts;

d) Price Variation: If the tenders have been invited on a variable price basis, the tenders shall be evaluated, compared, and ranked based on the position as prevailing on the last deadline for techno-commercial Proposal submission and not on any future date.

7) **Ambiguous Financial Proposal**: If the financial Proposal is ambiguous and leads to two equally valid total price amounts, it shall be rejected as nonresponsive.

8) **Time-Based (Input Admeasurement) Contracts:** The Consultant's Proposal must include the Key Experts' time-input person-months not less than the minimum specified in Section VI-A: List of Key Experts and Required Qualifications.

a) Minimum Time Inputs: if a Proposal includes less or more than the required minimum person-month time input, the proposal shall be considered as per sub-clause 6. b)-iii) above for that key-position

b) The proposal shall be evaluated based on remuneration cost plus reimbursable expenses as quoted by the consultants in the prescribed financial forms. The travel expense (TA/DA for authorized travel outside the home station) shall be reimbursed by the Procuring Entity on an actual basis. It shall be limited to the entitlement in Appendix D to the Contract Form. Therefore, travel expenses (TA/DA for authorized travel outside the home station) need not be quoted in the financial proposal for evaluation.

9) **Quality and Cost-Based Selection (QCBS):** In the case of QCBS, the total score is calculated by 60% weightage to the technical, 20 % Weightage to the performance security Quoted by the bidder and 20% weightage to financial quote submitted by bidder and adding them to obtain a combined QCBS (Technical cum Financial) score, as explained in the sub-clauses below. The proposal obtaining the highest total combined score in evaluating quality and cost will be ranked as H-1, followed by the proposals securing lesser marks as H-2, H-3 etc. The proposal securing the highest combined marks and ranked H-1 will be invited for negotiations as per ITC-Clause 12 below. If two or more bids have the same highest score in the final ranking, the bid with a higher financial score will be H-1.

a) The Technical Proposals are given an absolute technical score (Ta out of max 100) based on the evaluation criteria in Section VII: Evaluation/ Scoring Criteria. However, to normalise this w.r.t. Financial Score Sf below, a relative Technical Score (St) based on their relative ranking shall be calculated. The

highest evaluated Technical Score (Ta-max) is assigned the maximum relative Technical Score (St) of 100 (Hundred). The formula for determining the relative Technical scores (St) of all other Proposals is as follows:

St = 100 x Ta/ Ta-max,

in which "Ta-max" is the highest evaluated absolute Technical Score, "St" is the relative Technical score calculated, and "Ta" is the absolute Technical Score of the proposal under consideration. This normalisation would avoid any unintended magnification of weightage to the financial score due to different scales of Technical Scores and Financial Scores.

b) The Financial Proposals shall be evaluated in two parts :-

i) The relative ranking of performance security, with the highest performance Security (PBGm) being assigned the maximum financial score (PBGf) of 100(Hundred). The formula for determining the financial scores (PBGf) of all other Proposals is as follows:

PBGf = 100 x PBG/ PBGm,

in which "PBGm" is the highest performance security offered, "PBGf" is the financial score calculated, and "PBG" is the amount of PBG of the proposal under consideration.

Note:- If quoted Performance Bang Guarantee if less than 5% of the financial proposal quoted by the bidder, The bid shall be considered as non responsive and will not be further evaluated.

ii) The cost-score based on the relative ranking of prices, with the lowest evaluated Financial Proposal (Fm) being assigned the maximum financial score (Sf) of 100(Hundred). The formula for determining the financial scores (Sf) of all other Proposals is as follows:

Sf = 100 x Fm/ F,

in which "Fm" is the price of the lowest offer, "Sf" is the financial score calculated, and "F" is the price of the proposal under consideration.

c) The weights given to the Technical (T), Performance BG (PBG) and Financial (P) Quote Proposals are specified in TIS/ AITC:
T (the weight given to the Technical Proposal) = 60%, and PBG (the weight given to the PBG Financial Proposal) = 20% %
Sf (the weight given to the Financial Quote of services by bidder) = 20% % (with T + PBGf +Sf = 100%)

d) Proposals would be ranked according to their combined QCBS (weighted technical, St and financial, Sf (which will include of PBG and financial Quote)) scores as follows:

S = (St x T + PGBf x PBG+Sf x P)/100.

in which "S" is the combined QCBS score, "St" is the relative technical score calculated as per sub-clause a) above and "Sf" is the financial score calculated as per sub-clause b) above.

e) All scores shall be calculated up to two decimal places only.

### 11.4.2 Global Tender Enquiry (GTE, International Competitive Bidding)

The following additional aspects of the evaluation of the financial offer shall also apply:

1) **Currency of Tender**

In GTE tenders, if permitted in AITC, the Proposal price may be in foreign currencies, except for expenditure incurred in India (including incidental Works/ Goods/ Services delivered in India and agency commission, if any) should be stated in Indian Rupees.

2) **Evaluation of Offers**

All financial Proposals shall be converted to Indian Rupees based on the “Bill for Collection (BC) selling” exchange rate on the last deadline for the Proposal submission (Techno-commercial offer) from a source as specified (State Bank of India, if not so specified) in the tender document. The offers would be compared based on the

principle of the total outgo from Procuring Entity's pockets, including all applicable taxes and duties (Customs duty, GST, and GST Cess). For Proposals with Letter of Credit (LC) payment, the likely LC charges (as ascertained from the Procuring Entity's bankers) should also be loaded. Import of Goods or services or both attract integrated tax (IGST). The IGST rate and GST cess shall be applicable on the 'Custom Assessable Value' plus the 'Basic Customs duty applicable thereon'.

The terms FOB, FAS, CIF, DDP etc., shall be governed by the rules & regulations prescribed in the current edition of INCOTERMS, published by the International Chamber of Commerce, Paris

## 12. Contract Negotiation

### 12.1. Invitation to Negotiate

The negotiations shall be held at the date and address announced after the selection of the successful Consultant with their representative(s), who must have written power of attorney to negotiate and sign a contract on behalf of the Consultant. During the negotiations, it shall be ensured that no undue advantage accrues to the Consultant and that nothing shall vitiate the basis on which he has been declared successful. The minutes of negotiations shall be signed by the Procuring Entity and the Consultant's authorized representative.

### 12.2. Verification of Original Documents

Before issuing a Letter of Award (LoA) to the successful Consultant(s), the Procuring Entity may, at its discretion, ask the Consultant to present the originals of all such documents whose scanned copies were submitted online during shortlisting process and this RFP process. If so decided, the photocopies of such self-certified documents shall be verified and signed by the competent officer and kept in the records as part of the contract agreement. If the Consultant fails to provide such originals or in case of substantive discrepancies in such documents, it shall be construed as a violation of the Code of Integrity. Such Proposal shall be liable to be rejected as non-responsive in addition to other punitive actions in the Code of Integrity.

### 12.3. Availability of Key Experts:

As a per-requisite to the negotiations, the invited Consultant shall make the all Key Experts included in the Proposal available for interaction/interview at given date and time before the Authority or the committee so constituted for this purpose. Failure to present Key Experts' for interaction/interview before the Authority at given date and time may result in the Consultant's Proposal being declared non-responsive and the Procuring Entity proceeding to negotiate the Contract with the next-ranked responsive Consultant. However, Authority may finalise a scheme of empanelment of key personnel and finding their suitability for a specific job profile and update the suitability/ empaneled status on Infracon. Those key personnel who have been declared suitable on Infracon for a particular role shall not be interviewed again at the time of negotiation. Only those key personnel will be interviewed at negotiation stage who has not been empaneled for a particular post on Infracon portal shall be interviewed at negotiation stage to find their suitability for the assignment.

Notwithstanding the above, the substitution of Key Experts at the negotiations may be considered if due solely to circumstances outside the reasonable control of and not foreseeable by the Consultant, including but not limited to death or medical incapacity or as per the conditions specified in this RFP.In such case, the Consultant shall offer a substitute Key Expert within the period specified in the invitation letter to negotiate the Contract, who shall have equivalent or better qualifications and experience than the original candidate.

As per ITC-Clause 11.3.1-4), Procuring Entity reserves its right to seek during negotiations the replacement of the Team Leader/ other Key Experts who found not suitable for assignment during interaction/interview.

### 12.4. Technical Negotiations

The negotiations include discussions of the Terms of Reference (TORs), the proposed methodology, the Procuring Entity's inputs, the special conditions of the Contract, and finalizing the 'Appendix A: Terms of Reference' part of the Contract. These discussions shall not substantially alter the original scope of services under the TOR or the terms of the contract lest the quality of the final product, its price, or the initial evaluation be vitiated.

12.5. **Financial Negotiations**-:-

Deleted

### 12.6. Conclusion of Negotiations

The negotiations are concluded with a review of the finalized draft Contract, which shall be initiated by the Procuring Entity and the Consultant's authorized representative.

If the negotiations fail, the Procuring Entity shall inform the Consultant in writing of all pending issues and disagreements and provide a final opportunity for the Consultant to respond. If disagreement persists, the Procuring Entity shall declare the proposal non-responsive, informing the Consultant of the reasons for doing so. The Procuring Entity shall invite the next-ranked responsive Consultant to negotiate a Contract. Once the Procuring Entity commences negotiations with the next-ranked Consultant, the Procuring Entity shall not reopen the earlier negotiations.

## 13. Award of Contract

### 13.1. Letter of Award (Acceptance - LoA) and Signing of Contract

#### 13.1.1Letter of Award (LoA)

After 10 days from the conclusion of negotiations (in line with ITC-Clause 14 below), the Consultant whose Proposal has been accepted shall be notified of the award by the Procuring Entity before the expiration of the Proposal validity period by written or electronic means. This notification (hereinafter and in the Conditions of Contract called the "Letter of Award - LoA") shall state the sum (hereinafter and in the contract called the "Contract Price") that the Procuring Entity shall pay the Consultant in consideration of delivery of Services. The Letter of Award (LoA) shall constitute the legal formation of the contract, subject only to the furnishing of performance security as per the provisions of the sub-clause below. The Procuring Entity, at its discretion, may directly issue the contract subject only to the furnishing of performance security, skipping the issue of LoA.

#### 13.1.2 Performance Security

1) The performance security shall be criteria for financial evaluation. The consultants are required to quote the amount of performance Security only. The Cost of proposal shall be fixed by the Authority.
2) Within the number of days stipulated in AITC (or 21 days if not specified) of receipt of the Letter of Award (LoA, or the contract if LoA has been skipped), performance Security as per details in GCC-5.8 shall be submitted by the Consultant to the Procuring Entity.
3) If the Consultant, having been called upon by the Procuring Entity to furnish Performance Security, fails to do so within the specified period, it shall be lawful for the Procuring Entity at its discretion to annul the award and forfeit EMD (or enforce Bid Securing Declaration if it was permitted to be submitted in lieu of Bid Security), besides taking any other administrative punitive action like 'Removal from List of Registered Suppliers' etc.

#### 13.1.3 Signing of Contract

1) Publication of Results: The Procuring Entity shall send to each techno-commercially suitable Consultant the Notification of Intention to Award the Contract to the successful Consultant. The Notification of Intention to Award shall contain, at a minimum, the following information:
    a) the name and address of the Consultant with whom the Procuring Entity successfully negotiated a contract;
    b) the contract price of the successful Proposal;
    c) the names of all Consultants included in the short list for RFP, indicating those that submitted Proposals;
    d) the final combined scores and the final ranking of the Consultants
    e) The name and address of the successful Consultant(s) receiving the contract(s) shall be published in the Portal and notice board/ bulletin/website of the Procuring Entity.
2) After the award notification, the Procuring Entity shall share a copy of the Contract

Agreement (as per Format 1: Contract Form along with sub-formats) to a successful Consultant for review. The Consultant may point out to the Procuring Entity, in writing/ electronically, any anomalies noticed in the contract within seven days of receipt. The Contract Agreement shall be executed within 21 days after the date of issue of the Letter of Acceptance and after submission and verification of the Performance Security.

3) If asked by the Procuring Entity, the successful Consultant shall return the original copy of the contract, duly signed, and dated, within seven days from the date of receipt of the contract, to the Procuring Entity by registered/ speed post or by a suitable digital means.

## 14. Grievance Redressal/ Complaint Procedure

1) The consultant has the right to submit a complaint or seek de-briefing regarding the rejection of his proposal, in writing or electronically, within 10 days of the declaration of techno-commercial or financial evaluation results. The complaint shall be addressed to the Head of Procurement.
2) Within 5 working days of receipt of the complaint, the Tender Inviting Officer shall acknowledge the receipt in writing to the complainant, indicating that it has been received, and the response shall be sent in due course after a detailed examination.
3) The Tender Inviting Officer shall convey the final decision to the complainant within 15 days of receiving the complaint. No response shall be given regarding the confidential process of evaluating Proposals and awarding the contract before the award is notified, although the complaint shall be kept in view during such a process. However, no response shall be given regarding the following topics explicitly excluded from such complaint process:
    a) Only a Consultant who has participated in the procurement process, i.e., pre-qualification, Consultant registration or bidding, as the case may be, can make such representation.
    b) Only a directly affected Consultant can represent in this regard.
    c) In the case of RFP, before the bidding of Technical/ financial Proposals, an application for review concerning the technical/ financial Proposal may be filed only by a Consultant who has qualified in the RFP;
    d) If a technical Proposal has been evaluated before the opening of the financial Proposal, an application for review concerning the financial Proposal may be filed only by a Consultant whose technical Proposal is found to be acceptable.

4) No third-party information (RFPs, evaluation results) can be sought or included in the response.
5) The following decisions of the Procuring Entity shall not be subject to review:
    a) Determination of the need for procurement.
    b) Complaints against Terms of Reference except under the premise that they are either vague or too specific to limit competition
    c) Selection of the mode of procurement or bidding system;
    d) Choice of the selection procedure.
    e) Provisions limiting the participation of Consultants in the Procurement Process, in terms of policies of the Government
    f) Provisions regarding purchase preferences to specific categories of Consultants in terms of policies of the Central Government
    g) Cancellation of the Procurement Process except where it is intended to subsequently re-tender the same Services.

## 15. Code Integrity in Public Procurement, Misdemeanors and Penalties:

Procuring authorities, Consultants, suppliers, contractors, and consultants should observe the highest standard of integrity and not indulge in prohibited practices or other misdemeanors, either directly or indirectly, at any stage during the Procurement Process or the execution of resultant contracts. GCC-clause 13 (including the penalties prescribed therein) shall be considered part of this clause of ITC (even though it is not being reproduced here for brevity) and shall apply mutatis mutandis during the pre-award Procurement Process.

# Section III: Appendix to Instructions to Consultants (AITC)

RFP Document No. RFP No./ NH-534(old NH- 119)-UK -2025-26-756 (AE);

Tender Title: Consultancy Services for Authority Engineer for supervision of Widening to 2LPS From Km 156.900 to Km 175.00 Dugadda to Gumkhal of NH-534 Old NH-119 on EPC Mode in the state of Uttarakhand Under Annual Plan 2025-26.

(Ref ITC-clause 1.4)

*{Note for Procuring Entity: Text in grey italics font within square bracket [e.g., Mention …] are just suggestions/ directions and must be replaced by applicable text - remove brackets and convert the font to regular and black. Delete the rows not required. Clauses other than those mentioned below may also be mentioned if these need to be changed}*

*Note for Consultants: Following clauses (in column 1), wherever these appear in ITC, shall be taken to be negated or additional provisions be added to, or existing provisions be altered as per column 2. Whenever there is any conflict between the provision in the ITC and that in the AITC, the provision contained in the AITC shall prevail.*

| **ITC-Clauses** | **To be read as** |
|---|---|
| ITC 1: Contents of RFP | |
| ITC 1.3, 1.4, 1.5 | *[ ]* As per Section VII of RFP |
| | |
| ITC 3 Consultants - Eligibility and Preferential Policies | |
| ITC 3.2 | *[ Consultants are not allowed to associate with other Bidders]* |
| ITC 3.2 | *Participation of Sub-consultants, Key Experts and Non-Key Experts in more than one Proposal is not allowed* |
| ITC 4 The Terms of Reference and Form of Contract | |
| ITC 4.1 | *As per Section VI - Terms of Reference* |
| ITC 5. Proposal Prices, Taxes and Duties | |
| ITC 5.1.5 | *[ prices are to be quoted in INR ]* |
| ITC 5.2.2 | *As per section IV- GCC and Section V-SCC]* |
| ITC 5.4.1 | *As per section IV- GCC and Section V-SCC]* |
| ITC 5.4.2 | *As per section IV- GCC and Section V-SCC]* |
| ITC 6 to 10 | Downloading, Preparation, Submission and Opening of Proposals |
| ITC 8.1.1 | *[Language in which Proposals are to be submitted –English]* |
| ITC 8.2.1 | *[ Integrity Pact is to be Signed by all partners of JV/C and Submitted along with Proposal. Name and Contact Details of the Independent External Monitor (IEM) for Integrity Pact are as follows: - [Pls add names]* |
| ITC 11 and 12 Evaluation of Proposals and Award of Contract | |
| ITC 11.2.1 | *As per section VII* |

| | |
|---|---|
| ITC 11.4.2 | *[Customise by indicating here whether this is a Global Tender Enquiry (International Competitive Bidding) and the foreign currencies permitted]* |
| ITC 13.1.2 | *[Mention the period for submission of Performance Security if different from 21 days]* |

# Section IV: General Conditions of Contract (GCC)

## 1. General

### 1.1. Tenets of Interpretation

Unless where the context requires otherwise, throughout the contract:

1) The headings of these conditions shall not affect the interpretation or construction thereof.
2) Writing or written includes matter either whole or in part, in digital communications, manuscript, typewritten, lithographed, cyclostyled, photographed, or printed under or over signature or seal or digitally acceptable authentication, as the case may be.
3) Words in the singular include the plural and vice-versa.
4) Words importing the masculine gender shall be taken to include other genders, and words importing persons shall include any company, association, or body of individuals, whether incorporated or not.
5) Terms and expressions not herein defined shall have the meanings assigned to them in the contract Act, 1872 (as amended) or the Sale of Goods Act, 1930 (as amended) or the General Clauses Act, 1897 (as amended) or of INCOTERMS, (current edition published by the International Chamber of Commerce, Paris) as the case may be.
6) Any reference to 'Services' shall also be deemed to include the incidental Works/ Goods.
7) Any reference to any legal Act, Government Policies or orders shall be deemed to include all amendments to such instruments, from time to time, to date.

### 1.2. Definitions

In the contract, unless the context otherwise requires:

1) "Allied Firm" are all business entities that are within the 'controlling ownership interest' (ownership of or entitlement to more than twenty-five per cent of the company's shares or capital or profits) or 'control'( including the right to appoint a majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholder agreements or voting agreements) of the principal firm acting alone or together or through one or more juridical persons. All successor firms or assigns of the principal firm shall be considered allied firms;
2) "Bill of Quantities" (including the term Price Schedule or BOQ) means the priced and completed Bill of Quantities forming part of the Proposal;
3) "Commercial Bank" means a bank, defined as a scheduled bank under section 2(e) of the Reserve Bank of India Act, 1934;
4) "Contract" (including the terms 'Purchase Order' or 'Supply Order' or 'Withdrawal Order' or 'Work Order' or 'Consultancy Contract' or 'Contract for Services', 'rate contract' or 'framework contract' or 'Letter of Award – LoA' (letter or memorandum communicating to the Consultant the acceptance of his Proposal) or 'Agreement' ora 'repeat order' accepted/ acted upon by the Consultant in specific contexts), means a formal legal agreement in writing relating to the subject matter of procurement, entered into between the Procuring Entity and the Consultant on mutually acceptable terms and conditions and which are in compliance with all the relevant provisions of the laws of the country;

5) "Consultant" (as a participant in a Procurement Process - including the term 'contractor', ‘bidder’, ‘tenderer‘, participant’ or 'service provider' in specific contexts) means any person or firm or company, including any member of a consortium or joint venture, every artificial juridical person not falling in any of the descriptions of Consultants stated hereinbefore, including any agency branch or office controlled by such person, participating in a Procurement Process;
6) “Consultant” (as a contract holder - including the terms ‘Supplier’ or ‘Service Provider’ or ‘Contractor’ or ‘Firm’ or ‘Vendor’ or ‘Successful Consultant’ in specific contexts) means the person, firm, company, or Joint Venture with whom the contract is entered into and shall be deemed to include the Consultant's successors (approved by the Procuring Entity), agents, Sub-consultant, representatives, heirs, executors, and administrators as the case may be unless excluded by the terms of the contract;
7) “Contract Manager” means (as distinct from Team Leader of the Consultant) the Procurement Officer or any other officer or a third-party agency who has been assigned the authority to take all actions on behalf of the Procuring Entity during the execution of the contract by the Consultant;
8) “Day”, “Month”, and “Year” shall mean respectively calendar day, month or year (unless reference to financial year is apparent from the context);
9) “Effective Date” means the date on which this Contract comes into force and effect as per the Contract;
10) “Experts” means, collectively, Key Experts, Non-Key Experts, or any other personnelof the Consultant, Sub-consultant or JV member(s) assigned by the Consultant to perform the Services or any part thereof under the Contract;
11) "Goods" (including the terms ‘Stores’, and ‘Material(s)’ in specific contexts) includes all articles, materials, commodities, livestock, medicines, furniture, fixtures, raw material, consumables, spare parts, instruments, machinery, equipment, industrial plant, vehicles, aircraft, ships, railway rolling stock assemblies, sub-assemblies, accessories, a group of machines comprising an integrated production process or such other categories of goods or intangible, products like technology transfer, licenses, patents or other intellectual properties (but excludes books, publications, periodicals, etc., for a library), in specific contexts, procured or otherwise acquired by a Procuring Entity. Any reference to Goods shall be deemed to include small work or some services that are incidental or consequential to the supply of such goods;
12) “Government" means the Central Government or a State Government, as the case may be and includes agencies and Public Sector Enterprises under it in specific contexts;
13) “Intellectual Property Rights” (IPR) means the intellectual property owner's rights concerning possession/ exploitation of such property by others of tangible or intangible intellectual property, including rights to Patents, Copyrights, Trademarks, Industrial Designs, Geographical indications (GI);
14) “Joint Venture (JV or JV/C)” means an association or a Consortium with or without a legal personality distinct from that of its members, of more than one entity where one member has the authority to conduct all businesses for and on behalf of any and all the members of the JV, and where the members of the JV are jointly and severally liable to the Procuring

Entity for the performance of the Contract.;

15) “Key Expert(s)” means an individual professional (usually identified by name) whose skills, qualifications, knowledge, and experience are critical to the performance of the Services under the Contract and whose Curricula Vitae (CV) was considered in the technical evaluation of the Consultant’s proposal;
16) “Non-Key Expert(s)” means an individual professional (usually not identified by name) provided by the Consultant or its Sub-consultants to perform the Services or any part thereof under the Contract;
17) “Parties”: The parties to the contract are the "Consultant" and the “Procuring Entity” ,as defined in GCC clause 2.4;
18) “Performance Security” (includes the terms ‘Security Deposit’ or ‘Performance Bond’ ‘Performance Bank Guarantee’ or other specified financial instruments in specific contexts) means a monetary guarantee to be furnished by the successful Consultant or Contractor in the form prescribed for the due performance of the contract;
19) “Procurement” (in the context of Public/ Government ‘procurement’ or ‘Purchase’ ,or ‘Acquisition’ including an award of Public-Private Partnership projects, in specific contexts) means the acquisition of Goods/ Services/ works or a combination thereof by way of purchase, lease, license or otherwise, either using public funds or any other source of funds (e.g. grant, loans, gifts, private investment etc.) by a Procuring Entity, whether directly or through an agency with which a contract for procurement is entered into, but does not include any acquisition without consideration. The term “procure”/ “procured” or “purchase”/ “purchased” shall be construed accordingly;
20) “Procuring Entity” means the entity in The Procuring Organization procuring Goods, Works, or Services;
21) “Procurement Officer” means the officer signing the Letter of Award (LoA) and/or the contract on behalf of the Procuring Entity;
22) “Procurement Process” (or “Tender”; “RFP”; “RFP”, “Tender Enquiry” in specific contexts): ‘Procurement Process’ is the whole process from the publishing of the RFP Document to the resultant award of the contract. ‘RFP Document’ means the document (including all its sections, appendices, forms, formats, etc.) published by the Procuring Entity to invite Proposals in a Procurement Process. The RFP Document and Procurement Process may be generically and interchangeably referred to as “Bid Document”, “Tender" or " Tender Enquiry, " which would be clear from context without ambiguity;
23) "Proposal" (including the term ‘tender’, ‘offer’, ‘quotation’ or ‘bid’ in specific contexts) means an offer to supply goods, services or execution of works made as per the terms and conditions set out in a document inviting such offers;
24) “Services” means the activities to be performed by the Consultant under this Contract, as described in Appendix A thereto;
25) “Signed” means ink signed or digitally signed with a valid Digital Signature as per IT Act 2000 (amended from time to time). It also includes stamped, except in the case of a Letter of Award or amendment thereof;
26) “Sub-consultant” means a person or corporate body with an agreement with the Consultant to carry out a specific part of the ‘Services’ while the Consultant remains solely

liable for the execution of the Contract;

27) "Variation" means an instruction given by the Contract Manager, which varies the scope, quantum or performance standards of the Service performed;

28) "Works" refer to any activity involving construction, fabrication, repair, overhaul, renovation, decoration, installation, erection, excavation, dredging, and so on, which make use of a combination of one or more engineering designs, architectural design, material and technology, labour, machinery, and equipment.

### 1.3. Document Conventions

All words and phrases defined in GCC-clause 1.2 are written as 'Capitalised words' and shall have the defined meaning. The rest of the words shall be as per grammar, inter-alia 'Services' shall indicate the definition given in the GCC, while 'services' shall have the usual dictionary meaning.

### 1.4. Abbreviations:

| | |
|---|---|
| AITC | Appendix to Instructions To Consultants |
| BOQ | Bill of Quantities |
| BSD | Bid Securing Declaration |
| CV | Curriculum Vitae |
| EMD | Monetary guarantee to be furnished by a Consultant along with its proposal |
| FBS | Fixed Budget Selection |
| GCC | General Conditions of Contract |
| GST | Goods and Services Tax |
| GSTIN | GST Identification Number |
| GTE | Global Tender Enquiry (International Competitive Bidding) |
| HSN | Harmonized System of Nomenclature |
| IEM | Independent External Monitor |
| IPR | Intellectual Property Rights |
| ITC | Instructions To Consultants |
| JV/C | Joint Venture/ Consortium |
| LCS | Least Cost Selection |
| LoA | Letter of Award (Acceptance) |
| QCBS | Quality and Cost-Based Selection |
| RFP | Request for Proposal |
| RFPL | Request for Proposal Letter |
| SCC | Special Conditions of Contract |
| TIA | Tender Inviting Authority |

| | |
|---|---|
| TIS | Tender Information Summary |
| TOR | Terms of Reference |

# 2. The Contract

## 2.1. Language of Contract

The contract and all subsequent correspondence documents, during its execution, between the consultant and the Procuring Entity shall be written in the Language (hereinafter called the contract's language) as stipulated in the Contract (or, if not so specified, in English). However, the language of any printed literature furnished by a Consultant may be written in any other language provided a certified translation accompanies the same in the contract's language. For purposes of interpretation, translation in the contract's language shall prevail.

## 2.2. The Entire Agreement

This Contract and its documents (referred to in GCC-clause 2.5 below) constitute the entire agreement between the Procuring Entity and the Consultant and supersede all other communications, negotiations, and agreements (whether written or oral) of the Parties made before the date of this Contract. No agent or representative of either Party has the authority to make, and the Parties shall not be bound by or be liable for, any statement, representation, promise or agreement not outlined in this Contract.

## 2.3. Severability

If any provision or condition of this Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of the Contract or any of its other provisions and conditions.

## 2.4. Relationship between Parties

1) The parties to the contract are the Consultant and the Procuring Entity, as nominated in the contract.
2) Nothing contained herein shall be construed as establishing a relationship in the nature of master and servant or principal and agent between the Procuring Entity and the Consultant. The Consultant, subject to this Contract, is legally the main principal/ master of the Experts and Sub-consultants, if any, performing the Services and shall be fully responsible for the Services performed by them or on their behalf hereunder.
3) **Authority of Member in Charge:** In case the Consultant is a Joint Venture, the members hereby authorize the member specified in the contract to act on their behalf in exercising all the Consultant's rights and obligations towards the Procuring Entity under this Contract, including without limitation the receiving of instructions and payments from the Procuring Entity.
4) **Authorised Representative:** Any action required or permitted to be taken and any document required or permitted to be executed under this Contract by the Procuring Entity or the Consultant may be taken or executed by the officials specified in the contract.
5) **Good Faith:** The Parties shall act in good faith concerning each other's rights under this

Contract and adopt all reasonable measures to ensure the realization of the objectives of this Contract. The Consultant shall always act, in respect of any matter relating to this Contract or the Services, as a faithful adviser to the Procuring Entity and shall at all times support and safeguard the Procuring Entity's legitimate interests in any dealings with the third parties.

## 2.5. Contract Documents and their Precedence

The following conditions and documents in indicated order of precedence (higher to lower) shall be considered an integral part of the contract, irrespective of whether these are not appended/ referred to in it. Any generic reference to 'Contract' shall imply reference to all these documents as well:

1) Valid and authorized Amendments issued to the contract.
2) The Agreement consisting of the initial paragraphs, recitals, and other clauses, including the appendices annexed to it and signatures of Procuring Entity, set forth immediately before the GCC;
3) Appendix A: Terms of Reference;
4) Appendix B: Key Experts;
5) Appendix C – Remuneration Cost Estimates;
    a) Annex to Appendix C: Breakdown of Agreed Fixed Rates in Consultant's Contract;
6) Appendix D – Reimbursable Expenses Cost Estimates;
7) the Letter of Award (LoA), if issued
8) the SCC
9) the GCC
10) the Consultant's Proposal;
11) any other document listed in the contract as forming part of this Contract.
12) Integrity Pact, if any

## 2.6. Modifications/ Amendments, Waivers and Forbearances

### 2.6.1 Modifications/ Amendments of Contract

1) After the contract documents have been signed, no modified provisions shall be applicable unless the Procuring Entity suo-moto or, on request from the Consultant, by written order, amend the contract, at any time during the currency of the contract, by making alterations and modifications within the general scope of the Contract. Requests for changes and modifications in the Contract may be submitted in writing by the Consultant to the Procuring Entity.
2) If the Consultant does not agree to the suo-moto modifications/ amendments made by the Procuring Entity, he shall convey his views within 14 days from the date of amendment/ modification. Otherwise, it shall be assumed that the Consultant has consented to the amendment.
3) Any verbal or written arrangement abandoning, modifying, extending, reducing, or supplementing the contract or any of the terms thereof shall be deemed conditional and shall not be binding on the Procuring Entity unless and until the same is incorporated in a

formal instrument and signed by the Procuring Entity, and till then the Procuring Entity shall have the right to repudiate such arrangements.

### 2.6.2 Waivers and Forbearance

The following shall apply concerning any waivers, forbearance, or similar action taken under this Contract:

1) Any waiver of a Procuring Entity's rights, powers, or remedies under this Contract must be in writing, dated, and signed by an authorized representative of the Procuring Entity granting such a waiver and must specify the terms under which the waiver is being granted.
2) No relaxation, forbearance, delay, or indulgence by Procuring Entity in enforcing any of the terms and conditions of this Contract or granting of an extension of time by Procuring Entity to the Consultant shall, in any way whatsoever, prejudice, affect, or restrict the rights of Procuring Entity under this Contract, neither shall any waiver by Procuring Entity of any breach of Contract operate as a waiver of any subsequent or continuing breach of Contract.

## 3. Governing Laws and Jurisdiction

### 3.1. Governing Laws and Jurisdiction

1) This Contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Laws of India for the time being in force.
2) Irrespective of the place of delivery, the place of performance or the place of payments under the contract, the contract shall be deemed to have been made at the place from which the Letter of Award (LoA, or the contract Agreement, in the absence of LoA) has been issued. The courts of such Delhi shall alone have jurisdiction to decide any dispute arising outor in respect of the contract.

### 3.2. Changes in Laws and Regulations

Unless otherwise stipulated in the contract, if after the deadline for the Proposal submission (Techno-commercial), any law, regulation, ordinance, order or bye-law having the force of law is enacted, promulgated, abrogated, or changed in India (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Delivery Date and/ or the contract Price, then such Delivery Date and/ or Contract Price shall be correspondingly increased or decreased as per GCC clause 2.6, by agreement between the Parties hereto, to the extent that the Consultant has thereby been affected in the performance of any of its obligations under the contract. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if the same has already been accounted for in the applicable price adjustment provisions.

## 4. Communications

### 4.1. Communications

1) All communications under the contract shall be served by the parties to each other in writing, in the contract's language, and served in a manner customary and acceptable in business and commercial transactions. Any notice, request or consent required or permitted to be given or made pursuant to this contract shall be routed through Data

Lake only unless the law required to send such notices requests etc through physical/any other specified mode only. Any such notice, request or consent shall be deemed to have been delivered when given or made on the Data Lake to an authorized representative of the Party specified in the SC.

2) The effective date of such communications shall be either the date when delivered to the recipient or the effective date mentioned explicitly in the communication, whichever is later.
3) No communication shall amount to an amendment of the terms and conditions of the contract, except a formal letter of amendment of the Contract expressly so designated.
4) Such communications would be an instruction, a notification, an acceptance, a certificate from the Procuring Entity, or a submission or a notification from the Consultant. A notification or certificate required under the contract must be communicated separately from other communications.

**4.2. Persons signing the Communications**

For all purposes of the contract, including arbitration, thereunder all communications to the other party shall be signed by:

1) **On behalf of the Consultant:** The person who has signed the contract on behalf ofthe Consultant shall sign all correspondences. A person signing communication inrespect of the contract or purported to be on behalf of the Consultant, without disclosing his authority to do so, shall be deemed to warrant that he has authority to bind the Consultant. If it is discovered at any time that the person so signing has no authority to do so, the Procuring Entity reserves its right, without prejudice to any other right or remedy, to terminate the contract for default in terms of the contract and/ or avail any or all the remedies thereunder and hold such person personally and/ or the Consultant liable to the Procuring Entity for all costs and damages arising from such misdemeanors.
2) **On behalf of the Procuring Entity:** Unless otherwise stipulated in the contract, the Contract Manager signing the contract shall administer the contract and sign communications on behalf of the Procuring Entity. Paying Authorities mentioned in
the contract shall also administer respective functions during Contract Execution.

**4.3. Address of the parties for sending communications by the other party.** For all purposes of the contract, including arbitration, thereunder, the address of parties to which the other party shall address all communications and notices shall be:

1) The Consultant's address as mentioned in the contract, unless the Consultant has notified change by a separate communication containing no other topic to the Procuring Entity. The Consultant shall be solely responsible for the consequence of an omission to notify a change of address in the manner aforesaid, and
2) The Procuring Entity's address shall be the one mentioned in the contract. The Consultant shall also send additional copies to officers of the Procuring Entity presently dealing with the contract.
3) In case of communications from the Consultant, copies of communications shall be marked to the Contract Manager and the Procuring Entity’s officer signing the contract and as relevant to the Paying Authorities mentioned in the contract. Unless specified before the

contract's start, the Procuring Entity and the Consultant shall notify each other if additional copies of communications are to be addressed to additional addresses.

## 5. Consultant's Obligations and restrictions on its Rights

5.1. Changes in Constitution/ financial stakes/ responsibilities Business and Contract's the Consultant must proactively keep the Procuring Entity informed of any changes in its constitution/ financial stakes/ responsibilities during the execution of the contract.

1) Where the Consultant is a partnership firm, the following restrictions shall apply to changes in the constitution during the execution of the contract:
    a) A new partner shall not be introduced in the firm except with the previous consent in writing of the Procuring Entity, which shall be granted only upon execution of a written undertaking by the new partner to perform the contract and accept all liabilities incurred by the firm under the contract before the date of such undertaking.
    b) On the death or retirement of any partner of the Consultant firm before the complete performance of the contract, the Procuring Entity may, at his option, terminate the contract for default as per the contract and/ or avail any or all remedies thereunder.
    c) If the contract is not terminated as provided in Sub-clause (b) above, notwithstanding the retirement of a partner from the firm, that partner shall continue to be liable under the contract for acts of the firm until a copy of the public notice given by him under Section 32 of the Partnership Act, has been sent by him to the Procuring Entity in writing or electronically.

### 5.2. Obligation to Maintain Eligibility and Qualifications

The contract has been awarded to the Consultant based on evaluation and scoring criteria stipulated in the RFP process based on eligibility and qualifications criteria stipulated therein. The Consultant is contractually bound to maintain compliance with all such criteria during the execution of the contract. Any change which would vitiate the basis on which the Consultant was shortlisted or awarded the contract should be pro-actively brought to the notice of the Procuring Entity within 7 days of it coming to the Consultant's knowledge.

### 5.3. Restriction on Potential Conflict of Interests

1) Neither the Consultant nor its Sub-consultants nor the Personnel shall engage, either directly or indirectly, in any of the following activities:
    a) During this Contract's term, any business or professional activities in India that would conflict with the activities assigned to them.
    b) After this Contract's termination, such other activities as may be stipulated in the contract.
2) Furthermore, if the Consultant, as part of the Services, has the responsibility of advising the Procuring Entity on the procurement of goods, works or services, the Consultant shall at all times exercise such responsibility in the best interest of the Procuring Entity. Any discounts or commissions obtained by the Consultant in the exercise of such procurement responsibility shall be for the account of the Procuring Entity.

3) During the term of this Contract and after its termination, the Consultant and its affiliates, as well as any Sub-consultant and any of its affiliates, shall be disqualified from providing goods, works, or Services (other than the subject Service of this Contract and any continuation thereof) for any project resulting from or closely related to the subject Services of this Contract.
4) he payment of the Consultant according to (GCC Clause 10.5) shall constitute the Consultant's only payment in connection with this Contract. The Consultant shall not accept for its benefit any trade commission, discount, or similar payment in connection with activities under this Contract or the discharge of its obligations hereunder. The Consultant shall use its best efforts to ensure that any Sub-consultants and the Experts and agents of either shall not receive any additional payment.
5) The Consultant has an obligation and shall ensure that its Experts and Sub-consultants shall have an obligation to disclose any actual or potential conflict that impacts their capacity to serve the best interest of the Procuring Entity, or that may reasonably be perceived as having this effect. Failure to disclose said situations may lead to the disqualification of the Consultant and/ or the termination of the Contract.

### 5.4. Consequences of breach by Constituents of a Consultant

Should the Consultant or any of its partners, its Sub-consultants, any of its members in case of JV/C, or their Personnel commit a default or breach of GCC-clause 5.1 to 5.7, the Consultant (in case of JV, by the Lead Member, or in the case of the Lead Member being the defaulter, by the member nominated as Lead Member of the remaining JV/C) shall remedy such breaches within 21 days, keeping the Procuring Entity informed. Procuring Entity may call upon the Lead Member to assign the work of the defaulting member to any other equally competent party acceptable to the Procuring Entity. However, at its discretion, the Procuring Entity shall be entitled, and it shall be lawful on his part, to treat it as a breach of contract and avail any or all remedies thereunder. The decision of the Procuring Entity as to any matter or thing concerning or arising out of GCC-clause 5.1 to 5.7 or on any question whether the Consultant or any partner of the Consultant firm has committed a default or breach of any of the conditions shall be final and binding on the Consultant.

### 5.5. Assignment and Sub-contracting- Deleted

### 5.6. Obligation to Indemnify Procuring Entity

#### 5.6.1 For breach of IPR Rights

1) the Consultant shall indemnify and hold harmless, free of costs, the Procuring Entity and its employees and officers from and against all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which may arise in respect of the Services provided by the Consultant under this Contract, as a result of any infringement or alleged infringement of any patent, utility model, registered design, copyright, or other Intellectual Proprietary Rights (IPR) or trademarks, registered or otherwise existing on the date of the contract arising out of or in connection with:
    a) Any design, data, drawing, specification, or other documents or Services provided

or designed by the Consultant for or on behalf of the Procuring Entity.

b) The sale by the Procuring Entity in any country of the services/ products produced by the Services delivered by Consultant, and

c) The delivery of the Services by the Consultant or the use of the Services at the Procuring Entity's Site

2) Such indemnity shall not cover any use of the Services or any part thereof other than for the purpose indicated by or to be reasonably inferred from the contract, neither any infringement resulting from the use of the Services or any part thereof, or any service/ products produced thereby in association or combination with any other service, equipment, plant, or materials not delivered by the Consultant.

3) If any proceedings are brought, or any claim is made against the Procuring Entity arising out of the matters referred above, the Procuring Entity shall promptly notify the Consultant. At its own expense and in the Procuring Entity's name, the Consultant may conduct such proceedings and negotiations to settle any such proceedings or claim, keeping the Procuring Entity informed.

4) If the Consultant fails to notify the Procuring Entity within twenty-eight (28) days after receiving such notice that it intends to conduct any such proceedings or claim, then the Procuring Entity shall be free to conduct the same on its behalf at the risk and cost to the Consultant.

5) At the Consultant's request, the Procuring Entity shall afford all available assistance to the Consultant in conducting such proceedings or claims and shall be reimbursed by the Consultant for all reasonable expenses.

### 5.6.2 For Losses and Damages Caused by Consultant

1) the Consultant shall indemnify and keep harmless the Procuring Entity, from and against, all actions, suit proceedings, losses, costs, damages, charges, claims, and demands of every nature and description brought or recovered against the Procuring Entity because of any act or omission or default or negligence or trespass of the Consultant, his agents, or employees despite all reasonable and proper precautions may have been taken, during the execution of the Services. The Consultant shall make good at his own expense all resulting losses and/ or damages to:

   a) the Services themselves or

   b) any other property of the Procuring Entity or

   c) the lives, persons, or property of others

2) In case the Procuring Entity is called upon to make good such costs, loss, or damages or to pay any compensation, including that payable under the provisions of the Workmen's Compensation Act or any statutory amendments thereof, the amount of any costs or charges including costs and charges in connection with legal proceedings, which the Procuring Entity may incur about it, shall be charged to the Consultant. All sums payable by way of compensation under any of these conditions shall be considered reasonable compensation to be applied to the actual loss or damage sustained and whether or not any damage shall have been sustained.

3) The Procuring Entity shall have the power and right to pay or to defend or compromise

any claim of threatened legal proceedings, or in anticipation of legal proceedings being instituted consequent on the action or default of the Consultant, to take such steps as may be considered necessary or desirable to ward off or mitigate the effect of such proceedings, charging to Consultant, as aforesaid, any sum or sums of money which may be paid and any expenses whether for reinstatement or otherwise which may be incurred and the propriety of any such payment, defence or compromise, and the incurring of any such expenses shall not be called in question by the Consultant.

## 5.7. Confidentiality, Secrecy and Property and IPR Rights

### 5.7.1 Property Rights

1) Physical assets, e.g., Equipment, vehicles and materials made available to the Consultant by the Procuring Entity or purchased by the Consultant wholly or partly with funds provided by the Procuring Entity, shall be the property of the Procuring Entity and shall be marked accordingly. Upon termination or expiration of this Contract, the Consultant shall make an inventory of such equipment, vehicles, and materials available to the Procuring Entity and dispose of such equipment, vehicles, and materials in accordance with the Procuring Entity's instructions. While in possession of such equipment, vehicles and materials, the Consultant, unless otherwise instructed by the Procuring Entity in writing, shall insure them at the expense of the Procuring Entity in an amount equal to their total replacement value.
2) Intangible assets, e.g., license agreements, Software Packages, and memberships for purposes of performance of this contract provided by the Procuring Entity or purchased by the Consultant wholly or partly with funds provided by the Procuring Entity, shall be the property of the Procuring Entity and shall be registered accordingly., These shall be obtained in the name of the Procuring entity after obtaining the Procuring Entity's prior written approval. The Procuring entity shall have an encumbered right to use such assets, even after the termination of the Contract. Any restrictions about the future use of these documents and software shall be specified in the Contract.

### 5.7.2 IPR Rights

All deliverables, outputs, plans, drawings, specifications, designs, reports, and other documents and software submitted by the Consultant under this Contract shall become and remain the property of the Procuring Entity and shall be subject to laws of copyright and must not be shared with third parties or reproduced, whether in whole or part, without the Procuring Entity's prior written consent. The Consultant shall, not later than upon termination or expiration of this Contract, deliver all such documents and software to the Procuring Entity, together with a detailed inventory thereof. The Consultant may retain a copy of such documents and software but shall not use it for commercial purposes.

### 5.7.3 Confidentiality

All documents, drawings, samples, data, associated correspondence or other information furnished by or on behalf of the Procuring Entity to the Consultant in connection with the contract, whether such information has been furnished before, during or following completion or termination of the contract, are confidential and shall remain the property of the Procuring

Entity and shall, without the prior written consent of Procuring Entity neither be divulged by the Consultant to any third party, nor be used by him for any purpose other than the design, procurement, or other services and activities required for the performance of this Contract. If advised by the Procuring Entity, all copies of all such information in original shall be returned on completion of the Consultant's performance and obligations under this contract.

### 5.7.4 Secrecy

If the contract declares the subject matter of this Contract as coming under the Official Secrets Act, 1923 or if the contract is marked as "Secret", the Consultant shall take all reasonable steps necessary to ensure that all persons employed in any connection with the contract, have acknowledged their responsibilities and penalties for violations under the Official Secrets Act and any regulations framed thereunder.

### 5.7.5 Restrictions on the Use of Information

1) Without the Procuring Entity's prior written consent, the Consultant shall not use the information mentioned in the sub-clauses above except for performing this contract.
2) The Consultant shall treat and mark all information as confidential (or Secret – as the case may) and shall not, without the written consent of the Procuring Entity, divulge to any person other than the person(s) employed by the Consultant in the performance of the contract. Further, any such disclosure to any such employed person shall be made in confidence and only so far as necessary for such performance for this contract.
3) Notwithstanding the above, the Consultant may furnish to its holding company or its Sub-consultant(s) such documents, data, and other information it receives from the Procuring Entity to the extent required for performing the contract. In this event, the Consultant shall obtain from such holding company/ Sub-consultant(s) an undertaking of confidentiality (or secrecy – as the case may be) similar to that imposed on the Consultant under the above clauses.
4) The obligation of the Consultant under sub-clauses above, however, shall not apply to information that:
    a) the Consultant needs to share with the institution(s) participating in the financing of the contract;
    b) now or hereafter is or enters the public domain through no fault of Consultant;
    c) can be proven to have been possessed by the Consultant at the time of disclosure and which was not previously obtained, directly or indirectly, from the Procuring Entity; or
    d) otherwise lawfully becomes available to the Consultant from a third party with no obligation of confidentiality.
5) The above provisions shall not in any way modify any undertaking of confidentiality (or Secrecy – as the case may be) given by the Consultant before the contract date in respect of the contract, the RFP Document, or any part thereof.
6) The provisions of this clause shall survive completion or termination for whatever reason of the contract.

### 5.7.6 Protection and Security of Personal Data

1) Where the Consultant is processing Personal Data for the Procuring Entity (as part of Services), the Consultant shall:
    a) Process the Personal Data only as per instructions from Procuring Entity (which may be specific instructions or instructions of a general nature) as set out in this Contract or as otherwise notified by Procuring Entity;
    b) Comply with all applicable laws;
    c) Process the Personal Data only to the extent and in such manner as is necessary for the discharge of the Consultant's obligations under this Contract or as is required by Law or any Regulatory Body;
    d) Implement appropriate technical and organisational measures to protect Personal Data against unauthorized or unlawful Processing and accidental loss, destruction, damage, alteration, or disclosure. These measures shall be appropriate to the harm which might result from any unauthorized or unlawful Processing, accidental loss, destruction, or damage to the Personal Data and having regard to the nature of the Personal Data which is to be protected;
    e) Take reasonable steps to ensure the reliability of its staff and agents who may have access to the Personal Data;
    f) Obtain prior written consent from the Authority to transfer the Personal Data to any Sub-consultant for the provision of the Services;
    g) Not cause or permit the Personal Data to be transferred, stored, accessed, viewed, or processed outside of India without the prior written consent of the Procuring Entity.
    h) Ensure that all staff and agents required to access the Personal Data are informed of the confidential nature of the Personal Data and comply with the obligations set out in this clause.
    i) Ensure that none of the staff and agents publishes or disclose any personal data to any third parties unless directed in writing to do so by the Procuring Entity.
    j) Not disclose Personal Data to any third parties in any circumstances other than with the written consent of the Procuring Entity or compliance with a legal obligation imposed upon the Procuring Entity;
2) Notify the Procuring Entity (within five Working Days) if it receives the;
    a) a request from an employee of Procuring Entity to have access to his or other employees' Personal Data; or
    b) a complaint or request relating to the Procuring Entity's obligations under the law;
3) The provision of this clause shall apply during the contract period and indefinitely after its expiry.

### 5.8. Performance Bond/ Security

1) Within twenty-one days (or any other period mentioned in RFP Document or Contract) after the issue of the Letter of Award (LoA or the contract, if LoA is skipped) by the Procuring Entity, the Consultant shall furnish to the Procuring Entity performance security, valid up to sixty days (or any other period mentioned in RFP Document or Contract) after the date of completion of all contractual obligations by the Consultant.

2) The amount of Performance security as quoted by bidder in his financial proposal in Indian Rupees or the currency of the contract and shall be in one of the following forms:
    a) Unless otherwise stipulated in the RFP Document or the Contract, Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt from any commercial bank in India, or online payment in an acceptable form safeguarding the Procuring Entity's interest, or
    b) Bank Guarantee (including an e-Bank Guarantee) issued by a commercial bank in India, in the prescribed form provided in Appendix E-1 to Format 1: Contract Form.
3) If the Consultant, having been called upon by the Procuring Entity to furnish Performance Security, fails to do so within the specified period, it shall be lawful for the Procuring Entity at its discretion to annul the award and forfeit the EMD (or enforce Bid Securing Declaration, if that was submitted in lieu of Bid Security), besides taking any other administrative punitive action like 'Removal from List of Registered Suppliers' etc.
4) If the Consultant fails to maintain the quoted Performance Security during the Contract's currency, it shall be lawful for the Procuring Entity at its discretion.
    (a) treat it as a breach of contract and avail any or all contractual remedies provided for breaches/ default, including termination of the Contract for Default, or
    (b) without terminating the Contract, recover from the Consultant the amount of such security deposit by deducting the amount from the pending bills of the Consultant under the contract or any other contract with the Procuring Entity or the Government or any person contracting through the Procuring Organisation or otherwise, howsoever as per GCC-clause 10.4.
5) If a contract is amended, the Consultant shall furnish amended Performance Security with revised value and validity within twenty-one days of the issue of such an amendment.
6) The Procuring Entity shall be entitled, and it shall be lawful on his part,
    (a) to deduct from the performance securities or to forfeit the said security in whole or in part in the event of:
        i) Any default, failure, or neglect on the part of the Consultant in the fulfilment or performance in all respect of this contract or any other contract with the Procuring Organisation or any part thereof
        ii) for any loss or damage recoverable from the Consultant which the Procuring Entity may suffer or be put to for reasons of or due to the above defaults/ failures/ neglect
    (b) and in either of the events aforesaid to call upon the Consultant to maintain the said performance security at its original limit by making further deposits, provided further that the Procuring Entity shall be entitled, and it shall be lawful on his part, to recover any such claim from any sum then due or which at any time after that may become due to the Consultant for similar reasons.
7) Subject to the sub-clause above, the Procuring Entity shall release the performance security without any interest to the Consultant on completing all contractual obligations. Alternatively, upon the Consultant submitting a suitable separate Defect Liability Security for the duration of Defect Liability obligations, the original Performance Guarantee Security shall be released mutatis mutandis.

8) No claim shall lie against the Procuring Entity regarding interest on cash deposits, Government Securities, or depreciation thereof.

**5.9. Permits, Approvals and Licenses**

Whenever the Services and incidental Goods/ Works delivery requires the Consultant to obtain permits, approvals, and licenses from local public authorities or any third party, it shall be the Consultant's sole responsibility to obtain these and keep them current and valid. Such requirements may include but not be restricted to licences or environmental clearance if required. If requested by the Consultant, the Procuring Entity shall make its best effort to assist the Consultant in complying with such requirements in a timely and expeditious manner without diluting the Consultant's responsibility in this regard.

**5.10. Insurances**

The Consultant (s) shall take out and maintain, and shall cause any Sub-consultants to take out and maintain, atits(or the Sub-consultants', as the case may be)own cost but on terms and conditions approved by the Procuring Entity, insurance against the risks, and for the coverage, as stipulated in the contract or any applicable law including Labour Codes; and at the Procuring Entity's request, shall provide evidence to the Procuring Entity showing that such insurance has been taken out and maintained and that the current premiums have been paid. The Consultant shall ensure that such insurances are in place before commencing the Services as stated in GCC clause 9.2. Alterations to the terms of insurance shall not be made without the approval of the Contract Manager. The risks and the coverage of insurance shall be as follows

(a) Third Party motor vehicle liability insurance as required under Motor Vehicles Act,1988 in respect of motor vehicles operated in India by the Consultants or their Personnel or any Sub-consultants or their Personnel for the period of consultancy.

(b) Third Party liability insurance with a minimum coverage, of Rs. 1.0 million for the period of consultancy.

(c) Professional liability insurance as per 3.4 (a) (ii) of SC of the consultancy, with a minimum coverage equal to estimated remuneration and reimbursable.

(d) Employer's liability and workers' compensation insurance in respect of the Personnel of the Consultants and of any Sub-consultant, in accordance with the relevant provisions of the Applicable Law, as well as, with respect to such Personnel, any such life, health, accident, travel or other insurance as may be appropriate; and

(e) Insurance against loss of or damage to(i) equipment purchased in whole or in part with funds provided under this Contract, (ii) the Consultants' property used in the performance of the Services, and(iii)any documents prepared by the Consultants in the performance of the Services.

### 5.11. Accounting, Inspection and Auditing

The Consultant shall keep and make all reasonable efforts to cause its Sub-consultants to keep accurate and systematic accounts and records in respect of the Services and in such form and detail as shall identify relevant time changes and costs and as per accounting principles prescribed in India.

### 5.12. Book Examination Clause:- Deleted

### 5.13 Legal Compliance

The Consultant shall perform the Services in accordance with the Contract and the Applicable Law and shall take all practicable steps to ensure that any of its Experts and Sub-consultants comply with the Applicable Law.

### 5.14 Custody and Return of the Procuring Entity's Assets loaned to Consultant

1) The contractors shall sign accountable receipts for all documents and materials or other assets/ properties made over to them by the Contract Manager on behalf of the Procuring Entity. All such assets shall be deemed in good condition when received by the Consultant unless he has notified the Procuring Entity to the contrary within twenty-four hours of receipt. Otherwise, he shall be deemed to have waived the right to do so at any subsequent stage.
2) These assets shall remain the property of the Procuring Entity, and the Consultant shall take all reasonable care of all such assets. The Consultant shall be responsible for all damage or loss from whatever cause while assets are possessed or controlled by the Consultant, staff, workmen, or agents.
3) Where the Consultant insures such assets against loss or fire at the request of the Procuring Entity, such insurance shall be deemed to be by way of additional precaution and shall not prejudice the Consultant's liability as aforesaid.
4) The Consultant shall return all such assets in good order and repair, reasonable wear and tear excepted, before the completion/ closure/ termination of the contract and shall be responsible for any failure to account for the same or any damage done to that as assessed by the Procuring Entity whose decision shall be final and binding.

## 6. Procuring Entity's Obligations

### 6.1. Assistance by the Procuring Entity

Unless otherwise specified in the contract, the Client shall use its best efforts to:

- provide the Consultants, Sub-consultants and Personnel with work permits and such other documents as shall be necessary to enable the Consultants, Sub- consultants or Personnel to perform the Services;
- assist for the Personnel and, if appropriate, their eligible dependents to be provided promptly with all necessary entry and exit visas, residence permits, exchange permits and any other documents required for their stay in Government's country;
- Facilitate prompt clearance through customs of any property required for the Services and

of the personal effects of the Personnel and their -eligible dependents;

- Issue to officials, agents and representatives of the Government all such instructions as may be necessary or appropriate for the prompt and effective implementation of the Services;
- assist the Consultants and the Personnel and any Sub-consultants and or Associates employed by the Consultants for the Services from any requirement to register or obtain any permit to practice their profession or to establish themselves either individually or as a corporate entity according to the Applicable Law;
- grant to the Consultants, any Sub-consultants and or Associates and the Personnel of either of them the privilege, pursuant to the Applicable Law, of bringing into Government's country reasonable amounts of foreign currency for the purposes of the Services or for the personal use of the Personnel and their dependents and of withdrawing any such amounts as may be earned therein by the Personnel in the execution of the Services: and

- Provide to the Consultants, Sub-consultants and or Associates and Personnel any such other assistance as may be specified in the SC.

2) Issue instructions and information to its officials, agents, and stakeholders for prompt and effective implementation of the Services.
3) **Access to Project Site:** The Procuring Entity warrants that the Consultant shall have, free of charge, unimpeded access to the project site if such access is required for the performance of the Services.

### 6.2. Facilities to be provided by the Procuring Entity

1) The Procuring Entity shall make available to the Consultant and the Experts, for the performance of the contract, free of any charge (unless otherwise stated therein), the services, facilities, and property described in the 'Terms of Reference' (Appendix A) as per terms and conditions and against appropriate safeguards (including Insurances, Bank Guarantee, Indemnity Bonds, Retention Money etc.) specified therein. The Consultant shall use such property for the execution of the contract and no other purpose whatsoever.
2) In case such services, facilities and property shall not be made available to the Consultant as and when specified in Appendix A, the Parties shall agree on (i) any time extension that it may be appropriate to grant to the Consultant for the performance of the Services, (ii) how the Consultant shall procure any such services, facilities and property from other sources, and (iii) the additional payments, if any, to be made to the Consultant as a result thereof according to GCC clause 10.1.1.

### 6.3. Counterpart Personnel

1) The Procuring Entity shall make professional and support counterpart personnel available to the Consultant, as specified in Appendix A.
2) If counterpart personnel are not provided by the Procuring Entity to the Consultant as and when specified in Appendix A, the Procuring Entity and the Consultant shall agree on (i)

how the affected part of the Services shall be carried out, and (ii) the additional payments, if any, to be made by the Procuring Entity to the Consultant as a result thereof.

3) Professional and support counterpart personnel, excluding Procuring Entity's Contract Management and liaison personnel, shall work under the exclusive direction of the Consultant. If any member of the counterpart personnel fails to perform any work assigned to such member by the Consultant that is adequately consistent with the position occupied by such member, the Consultant may request the replacement of such member, and the Procuring Entity shall not unreasonably refuse to act upon such request.

### 6.4. Payment Obligation

Considering the Services performed by the Consultant under this Contract, the Procuring Entity shall pay the Consultant for the deliverables specified in Appendix A and in such manner as is provided in the Contract.

## 7. Scope of Services and Performance Standards

### 7.1. Scope of Services

1) **Services:** This contract is for the performance/ delivery of Services of the description, scope/ quantum outlined in Appendix A: 'Terms of Reference' during the contract period specified therein.
2) **Incidental Works/ Goods/ Other Services:** If so stipulated, the Consultant shall be required to perform/ deliver specified incidental Works/ Goods/ other Services as an integral part of the Services in the contract.
3) **Location:** The Services shall be performed at such locations as are specified in Appendix A and, where the location of a particular task is not so specified, at such locations, whether in the Procuring Entity's country or elsewhere, as the Procuring Entity may approve.
4) **Reporting Requirements:** The Consultant shall deliver to the Procuring Entity the reports, deliverables, outputs, and documents specified in Appendix A: 'Terms of Reference', in the form, in the numbers and within the periods outlined in the said Appendix, besides progress reports as per GCC Clause 9.3.
5) **Standard of Performance:**
    a) The Consultant shall perform and carry out the Services with all due diligence, efficiency, and economy, in accordance with generally accepted professional standards and practices, observe sound management practices, and employ appropriate technology and safe and effective equipment, machinery, materials and methods.
    b) Unless otherwise specified, the performance standards and quality of the Services shall conform to the Terms of Reference as stipulated in the contract or as per best standards in the market, where not so specified.
    c) **Defects in Services:** The Procuring Entity shall promptly notify the Consultant of any identified defects, lapses/deficiencies in services requesting the correction of the notified defect within a reasonable time. If the Consultant has not corrected notified defect within the time stipulated in the Procuring Entity's notice, the Procuring Entity may suspend payments as per GCC clause 10.6 and terminate the agreement as per GCC clause 12.1 of contract agreement.

6) Consultants' Actions Requiring Client's Prior Approval;- The Consultants shall obtain the Client's prior approval in writing before taking any of the following actions:

(a) appointing such members of the Personnel as are listed in Appendix 'C' ("Consultants' Sub-consultants' Key Personnel") merely by title but not by name;

(b) entering into a subcontract for the performance of any part of the Services, it being understood (i) that the selection of the Sub-Consultant and the terms and conditions of the subcontract shall have been approved in writing by the Client prior to the execution of the subcontract, and (ii) that the Consultants shall remain fully liable for the performance of the Services by the Sub-Consultant and its Personnel pursuant to this Contract; and

(c) taking any action under a civil works contract designating the Consultants as "Authority's Engineer", for which action, pursuant to such civil works contract, the written approval of the Client as "Employer" is required".

### 7.2. Eligible Services

Unless otherwise stipulated in the Contract, the country of origin of 'Services' and related 'Goods' under the contract shall have their origin in India or other countries (if specified in the Contract). It must conform to the declaration made by the Consultant during regarding Central Government policies restricting the participation of entities from i) Certain countries sharing land borders with India and ii) Countries that restrict the participation of Bidders from India on a reciprocal basis. They should ensure that they continue to be free from such restrictions.

## 8. Deployment of Resources

### 8.1. Site and Assets thereon

#### 8.1.1 Site of Service Delivery

1) The site for Service delivery shall be the lands, spaces, and other places on, under, in or through which the Services are to be carried out and any other lands or places provided by the Procuring Entity for the contract.
2) No land or building or any other asset belonging to or in possession of the Procuring Entity shall be occupied/ used by the Consultant without the permission of the Procuring Entity. The Consultant shall not use or allow the site to be used for any purposes other than executing or concerning the execution of the services.
3) **Prohibition of Smoking and Intoxicants:** The Consultant shall exercise influence and authority to the utmost extent to secure strict compliance by his staff or any labour employed through Sub-consultants or petty contractors with all the rules and regulations stipulated by the Procuring Entity relating to the access to the project site, including but not limited to
    a) Prohibition of Smoking in 'No Smoking Zone' and in Public Places
    b) Prohibition of the use of any intoxicating substances including, but not limited to, intoxicating beverages during the service period or on-site or near the site or in any of the facilities, sites, buildings, encampments, or tenements owned, occupied by or within the control of the Consultant or any of his employees.

c) Safety practices relating to Procuring Entity's staff, Public and third parties
d) Maintenance of peace and business-like ambience

### 8.1.2 Clearance of Site on Completion

1) On completion of the services, the Consultant shall hand over the whole project site to the procuring Entity on 'as it was' basis. No final payment in settlement of the accounts for the Services shall be paid to the Consultant till, in addition to any other condition necessary for final payment, site clearance shall have been affected by him.
2) In the event of failure on the part of the Consultant to comply with this provision within 7 days after receiving notice for clearance of Procuring Entity's site and lands,the Contract Manager shall cause them to be removed in such a way as deemed fit and convenient and cost as increased by supervision and other incidental charges shall be recovered from the Consultant. The Procuring Entity shall not be held liable for any loss or damage to the Consultant's property as may be on the site and due to such removal.

## 8.2. Key and Non-key Personnel

### 8.2.1 General Requirements

1) **Restrictions on the Employment of Retired Staff or Officers or Managers of Procuring Entity within One Year of their Retirement:** the Consultant shall not himself be a retired Government employee of Gazetted rank or engage any employee or associate who is a retired Government employee of Gazetted rank, if such persons have not completed one year (or any other period prescribed by the relevant authority) from the date of retirement, in connection with this Contract in any manner whatsoever without obtaining prior permission of the relevant authority. If the Consultant is found to have contravened this provision, it shall constitute a breach of contract, and Procuring Entity shall be entitled to terminate the contract and/ or avail any or all the remedies thereunder.
2) **Team Lead:** The Consultant, when he is not personally present on the workplace site, shall nominate a Team Lead during working hours, which shall, on receiving reasonable notice, present himself to the Contract Manager. Orders given by the Contract Manager or his representative to the Team Lead shall be deemed to have the same force as if given to the Consultant.
3) The Consultant shall employ and provide qualified and experienced Key and Non-key Experts and Sub-consultants as required to carry out the Services.
4) All key personnel and sub professional staff of the Authority Engineer shall use the Aadhaar based biometric attendance/ Geo-tagged selfie-based attendance system for marking their daily attendance. Aadhaar based Biometric attendance/ Geo-tagged selfie-based attendance shall be marked at least once a day and anytime during the day. 1 Aadhaar based biometric attendance/ Gee-tagged selfie-based attendance system shall be installed by the Authority Engineer its own cost at the site office in order to facilitate the attendance marking. More systems can be installed near the project highway upto a maximum of 1 system per 50 km in order to encourage frequent visits of project highway by key personnel and sub professional staff. A copy of monthly Aadhaar based biometric attendance/ Geo-tagged selfie-based attendance shall be attached with Monthly Status Report. Proper justification shall be provided for cases of absence of key personnel/ sub

professional staff which do not have prior approval from Project Director of concerned stretch. Authority Engineer have to provide a certificate that all key personnel as envisaged in the Contract Agreement has been actually deployed iii the project.

5) Authority Engineer will intimate concerned Project Director/Project Incharge immediately after establishing its site office regarding installation of Aadhaar based Biometric attendance/ Geotagged selfie-based attendance system and complete address of its site office

6) **Fake CV:-** If any case of fake/incorrect/inflated CV is found, it shall be dealt with very severely and would result in all possible penal action including blacklisting from future projects of <Agency>. This would also apply even when the consulting firm is not successful in getting the assignment. *In case CV of a person is turned out to be fake/incorrect/inflated during the assignment, the consultancy firms will have to refund the salary and perks drawn including interest @12% per annumin respect of the person apart from other consequences.* In addition to above, 10% of the salary and perks to be refunded shall be recovered from the Firm as penalty.

### 8.2.2 Key Personnel

1) The titles, job descriptions, minimum qualifications, and estimated periods of the Consultant's Key Personnel engagement in carrying out the Services are described in Appendix B to the Contract.
2) The Key Experts shall not be entitled to be paid for overtime nor to take paid sick leave or vacation leave except as specified in Appendix B, and the Consultant's remuneration shall be deemed to cover these items.
3) Medical Fitness of certificate as per Appendix-B-1, for all key personnel shall be submitted along with proposal.
4) Working hours and holidays for Experts are outlined in Appendix B. Foreign Key Experts carrying out Services in India shall be deemed to have commenced or finished work in respect of the Services several days before their arrival in or after their departure from India, as is specified in Appendix B.
5) Any leave-taking by Key Experts shall be subject to the prior approval by the Consultant, who shall ensure that absence for leave purposes shall not delay the progress and or impact adequate supervision of the Services. If Key Experts are not deployed for significant periods, affecting the progress and quality of the assignment, payments may be suspended as per clause 10.6 below.
6) **Substitution of Key Experts:**
   a) Unless the Procuring Entity may otherwise agree in writing, no changes shall be made in the Key Experts.
   b) In case notice to commence services pursuant to Clause 2.1 of this Contract is not ordered by Client within 90 days of signing of contract the key personnel can excuse themselves on valid grounds, e.g., selection on some other assignment, health problem developed after signing of contract, etc. In such a case no penalty shall be levied on the Firm or on the person concerned. The firm shall however be asked to give a replacement by an equal or better scoring person, whenever mobilization is ordered.
   c) In case notice to commence services is given within 90 days of signing of contract the,

the Authority expects all the Key Personnel specified in the Proposal to be available during implementation of the Agreement. The Authority will not consider any substitution of Key Personnel except under compelling circumstances beyond the control of the Consultant and the concerned Key Personnel. Such substitution shall be limited to not more than three Key Personnel subject to equally or better qualified and experienced personnel being provided to the satisfaction of the Authority. Replacement of the Team Leader will not normally be considered and may lead to disqualification of the Applicant or termination of the Agreement. Replacement of one Key Personnel shall be permitted subject to reduction of remuneration equal to 5 % (five per cent) of the total remuneration specified for the Key Personnel who is proposed to be replaced. In case of second replacement the reduction in remuneration shall be equal to 10% (ten per cent) and for third and subsequent replacement, such reduction shall be equal to 15% (fifteen per cent). The maximum age limit of replaced key personnel shall be 65 years as on the date of submission of proposal for such replacement. The Consultant shall make all endeavors to ensure that replacement of a Key Personnel is approved before the concerned Key Personnel leaves the consultancy assignment, in any case the Consultant shall submit replacement acceptable to Client not more than 3 weeks after the Key Personnel leaves the consultancy assignment, failing which Client may terminate the Contract in pursuance to Clause 12.1 of GC. The personnel so replaced shall be debarred from future projects for 2 years. For avoidance of doubt it is clarified that for one position replace shall be allowed only once during currency of contract. Repeated replacement for one key position shall not be allowed except in case of death.

d) In case, person permanently employed with the firm is to be replaced, technical score of both the CVs shall be compared excluding the marks given for employment with firm. Replacement would be allowed when the Technical Score (excluding the marks given for employment with firm) of the new key person is equal or better than the existing key person's Technical Score excluding marks assigned for permanent employment with the firm. However, the remuneration of such replacement shall be reduced on proportionate basis in case the overall score of the replacement person is less than the overall score of original person.

e) **Replacement after Commercial Operation date of the Project: -** One time replacement without any reduction in remuneration will be allowed after achievement of CoD of the Project. The replacement shall however be of equal or better score.

f) If the Employer (i) finds that any of the Personnel has committed serious misconduct or has been charged with having committed a criminal action or (ii) has reasonable ground to be dissatisfied with the performance of any of the Personnel, then the consultant shall, at the Employer’s written request specifying the grounds therefore, forthwith provide a replacement with qualifications and experience acceptable to him. For such replacement there will be no reduction in remuneration.

g) The remuneration to the replaced key personnel shall be paid at the original quoted remuneration by the consultancy firm. The amount equivalent to the reduction as

mentioned in clause 5(e) above shall be deducted from the overhead quoted by the consultancy firm.

h) If any member of the approved team of a consultant engaged by <Agency> leaves that consultant before completion of the job, he shall be barred for a period of 6 months to 24 months from being engaged as a team member of any other consultant working (or to be appointed) for any other <Agency>/ MoRTH projects.

6) Additional Key Experts: If additional Key Experts are required to carry out the Services during the execution of the contract, the Consultant shall submit to the Procuring Entity for review and approval a copy of their Curricula Vitae (CVs). If the Procuring Entity does not object in writing (stating the reasons for the objection) within twenty-one (21) days from receiving such CVs, such additional Key Experts shall be deemed approved by the Procuring Entity. The rate of remuneration payable to such new additional Key Experts shall be based on the rates for other Key Experts' positions which require similar qualifications and experience.

7) Notwithstanding anything to the contrary stated in the GCC and SCC, it shall be mandatory to deploy the key personnel and sub-professional as per the Man- Months Input specified in the Terms of Reference.

Inadequate deployment of key personnel and sub- professional shall lead to deduction in the monthly payment as per following table. The key personnel and sub-professional shall be considered to be inadequately deployed if he/she is not present for 90% (Except the leaves as specified in the Special Conditions of Contract/ Appendix B: Hours of Work for Key Personnel) of the time stipulated in the month, as per the Man-Months input in the Terms of Reference and the Deployment Schedule proposed by the firm

| **Sr. No.** | **Personnel** | **% reduction of monthly remuneration** |
|---|---|---|
| **Normal Highway Project** | | |
| 1 | Team Leader cum Senior Highway Engineer | 20% |
| 2 | Resident Engineer cum Highway Engineer | 25% |
| 3 | Bridge/Structural Engineer | 20% |
| 4 | Other Key Personnel | 20% |
| 5 | Sub- Professional Staff | 15% |
| | | |
| **Standalone Bridge Project** | | |
| 1 | Team Leader cum Senior Bridge Engineer | 20% |

| | | |
|---|---|---|
| 2 | Resident cum Pavement Specialist | 25% |
| 3 | Bridge/Structural Engineer | 20% |
| 4 | Other Key Personnel | 20% |
| 5 | Sub- Professional Staff | 15% |
| | | |
| **Standalone Tunnel Project** | | |
| 1 | Team Leader cum Senior Tunnel Expert | 20% |
| 2 | Resident Engineer cum Excavation Specialist | 25% |
| 3 | Tunnel Design Engineer | 20% |
| 4 | Other Key Personnel | 20% |
| 5 | Sub- Professional Staff | 15% |
| | | |

Note: -

1. In the case of "Other Key Personnel (Sr. No. 4)" and "Sub – Professional Staff (Sr. No. 5)", "the average availability across the group shall be considered for calculation.
2. The key personnel shall be paid for the only time he has been actually been present at site. Further, a deduction equivalent to the percentage mentioned above, shall be deducted from the gross bill of the consultant as deterrent for inadequate deployment. For avoidance of doubt, in case the Team Leader cum Senior Highway Engineer has been made available for 85 % of the stipulated time in the month, then only 85 % of the monthly remuneration shall be paid for the key personnel and, a penalty equivalent to 20 % of the quoted remuneration of Team leader shall be deducted from the bill. In the case of "Other Key Personnel (Sr. No. 4)" and "Sub – Professional Staff (Sr. No. 5)", for percentage deduction as mentioned above, total remuneration of that group shall be considered for calculation.
3. The non-deployment of any professional staff for any reason including replacement etc shall be considered as absence.
4. Consultant Have to provide a certificate that all key personnel as envisaged in the contract Agreement has been actually deployed in the project. They have to submit the proof of Aadhar Based Biometric attendance/ Geo –tagged selfie-based attendance/ or any other document as decided by the Authority, at the time of submission of bills to the <agency>

**8.2.3 Non-key Personnel**

the Consultant must ensure the deployment of non-key Personnel as per Annexure C, the Terms of Reference, and the approved Works plan as updated. Daily attendance records of such non-key personnel shall be maintained by the Consultant and shared with the Contract

Manager. If the Contract Manager believes that the Consultant is not employing sufficient Non-key personnel as is specified or otherwise for the proper execution of the Services, he shall issue a notice to the Consultant for remedial measures. The Consultant shall forthwith, on receiving intimation to this effect, deploy the additional number of non-key personnel as specified by the Contract Manager immediately, and failure on the part of the Consultant to comply with such instructions shall entitle the Procuring Entity to suspend payments as per GCC clause 10.6 for the shortfall in performance or terminate the contract and/ or avail all the remedies thereunder. Such action shall be in addition to the deduction from the Consultant's payment cost of shortfall personnel as per Annexure C.

8.2.4 Removal of Key and Non-key Experts or Sub-consultants on Orders Contract Manager

1) The Consultant shall, at the Procuring Entity's written request, provide a Replacement, if the Procuring Entity finds that any of the Experts or Sub-consultant: commits severe misconduct or has been charged with having committed a criminal act
   a) persists in any misconduct or lack of care;
   b) is found to be negligent, incompetent or incapable of discharging assigned duties;
   c) fails to comply with any provision of the Contract;
   d) based on reasonable evidence, is determined to have engaged breached the Code of Integrity (including Fraud and Corruption) during the execution of the Works;
   e) Prolong continuous absence of more than 1 month at site.
2) Subject to the requirements in the sub-clause above, and notwithstanding any requirement from the Procuring Entity to request a replacement, the Consultant shall take immediate action as appropriate in response to any violation in the sub-para above. Such immediate action shall include removing (or causing to be removed) such Key/ Non-Key Expert or sub-consultant from carrying out the Services.
3) Any replacement of the removed Experts or Sub-consultants shall possess equal or better qualifications and experience and be acceptable to the Procuring Entity.
4) The Consultant shall bear all costs from or incidental to any removal and/or replacement of such Experts.

## 8.3. Equipment and Tools of Trade

The Consultant must ensure the deployment of Equipment and Tools of Trade necessary to deliver services as per the Terms of Reference and approved Works plan as updated. If the Contract Manager believes that the Consultant is not employing on the Services sufficient Equipment/Tools of Trade as is specified or otherwise for the proper execution of the Services within the prescribed time, the Consultant shall forthwith on receiving intimation to this effect deploy the additional equipment/ tools of the trade as specified by the Contract Manager immediately and failure on the part of the Consultant to comply with such instructions shall entitle the Procuring Entity to suspend payments as per GCC clause 10.6 for the shortfall in performance or terminate the contract and/ or avail any or all the remedies thereunder for breach of contract.

# 9. Delivery of Services and delays

## 9.1. Works plan

1) Before the commencement of the Services, the Consultant shall submit for approval of the Contract Manager a Works plan showing the Methods, schedule of delivery of services, and deployment plans for Personnel, Equipment and Materials for the execution of the services. The programme of delivery of Services amended as necessary by discussions with the Contract Manager shall be treated as the agreed Works plan for this Contract. The Services shall be carried out and monitored as per the approved Program as updated.
2) The Contract Manager shall direct the order in which the several components of the Services shall be provided, and the Consultant shall execute all orders the Contract Manager gives from time to time without delay. Still, the Consultant shall not be relieved thereby from responsibility for the due performance of the Services in all respects.

## 9.2. Commencement of Services

1) **Effective Date of Contract:** Consultant shall commence the Services and shall proceed with due expedition and without delay from the effective date of Contract (all dates of delivery shall be counted from such a date), which shall be the date mentioned as the effective date in the contract, or if not so mentioned:
    a) 30 days from the Procuring Entity's notice (unless specified otherwise) to the Consultant instructing him to begin carrying out the Services. This notice shall confirm that the effectiveness prerequisites listed in the contract have been met.
    b) If no such order is issued,30 days from the date of the Issue of the LOA or the signing of the Contract agreement, whichever is earlier.
2) **Commencement of Services:** Not later than the number of days after the Effective Date specified in the Contract or the Notice to proceed, the Consultant shall begin carrying out the Services after confirming the following:
    a) As required by the Contract, all JV members and key experts needed at the beginning of the assignment are effectively participating.
    b) That upon provision of Bank Guarantees, advance payments, if any, are implemented.
    c) That the Procuring Entity has provided facilities (including Data, Documents and Background Information) as per the Contract
    d) that all parties involved in the assignment (users, security team, and other relevant departments of the Procuring Entity and other third-party stakeholders) have been informed by the Procuring Entity
    e) that all permits, licences, and authorisations have been obtained.
3) **Termination of Contract for Failure to Become Effective**: If this Contract has not become effective (as per sub-clause 1) above) within such period after the date of Contract signature as specified in the Contract, either Party may, by not less than thirty (30) days' written notice to the other Party, declare this Contract to be null and void, and in the event of such a declaration by either Party, neither Party shall have any claim against the other Party with respect hereto.

## 9.3. Contract Management

### 9.3.1 Consultancy Management Teams

The Procuring Entity shall nominate a Contract Manager (or a Consultancy Management Team), and the Consultant shall nominate a counterpart Team Lead to monitor the assignment so that the output is in line with the Procuring Entity's objectives of the Contract.

### 9.3.2 Review of Phases and Milestones

The Contract Manager and Consultant/ Team Lead shall hold progress meetings at various phases and Milestones into which the assignment is divided as per Annexure A. Unless otherwise indicated in Annexure A, the following actions would be taken during such progress meetings.

1) **Kick-off Meeting:** The contract Manager and the Consultant/ Team Lead shall meet at the start of the assignment to ensure that the Contract requirements are clearly understood by all concerned and that the Contract Management procedures are finalised.
2) **Inception Phase Review:** The inception meeting shall be held at a period (specified in Annexure A or the Notice to Proceed) after the effective date of the contract or, if not so specified, within 21 days of the effective date. Before this meeting, the consultant must provide a draft Inception Report for discussion. The Consultant shall submit a final Inception Report within the specified time in the 'Terms of Reference' or as agreed in the Inception Meeting, or if not so specified, within 7 days of the Inception Meeting. Template for Inception Report may be agreed to beforehand in the Inception Meeting. It should, at the minimum, cover comments and suggestions on the following:
    a) Terms of Reference
    b) Work plan and staffing schedule
    c) Facilities to be provided by the Procuring Entity
    d) Working arrangements and liaison
3) **Periodic Reviews:** Unless otherwise decided by the Contract Manager and the Consultant's Team Lead, periodic review meetings (monthly if not otherwise stipulated) shall be held to review the pace of progress as compared to the Work Plan and remedial actions thereto.
4) **Deliverables Reviews**: The contract Manager and Consultant/ Team Lead may hold other meetings to review and approve specific deliverables or phases (including Interim and Final Reports) as specified in Annexure A or as agreed between the parties.

## 9.4. Delivery of services, Time of Delivery and Extensions Thereof

### 9.4.1 Delivery of Services:

The Consultant shall deliver all Services and submit deliverables as per the approved work plan in the manner specified in the Contract.

### 9.4.2 **Time of Delivery of Services is of Essence of the Contract**:

1) The time for delivery of Services shall be deemed to be the essence of the contract. Subject to any requirement in the contract as to the completion of any portions or portions of the

Services before completion of the whole, the Consultant shall fully and finally complete the whole of the services comprised in the contract as per the Delivery and Completion Schedule stipulated in Annexure A: 'Terms of Reference'.

2) If at any time during the currency of the contract, the Consultant encounters conditions hindering the timely performance of services; the Consultant shall promptly inform the Procuring Entity in writing about the same and its likely duration.

3) He may request to the Procuring Entity for an extension of the delivery schedule not less than one month before the expiry of the date fixed for completion of the services. Procuring Entity may agree to extend the completion schedule, with or without liquidated damages and denial clause, by issuing an amendment to the contract in terms of the following clauses.

**9.4.3 Extension for Excusable Delay Not Due to Consultant**

1) If in the opinion of the Consultant, the progress of Services has at any time been delayed due to the following reasons, then within 15 days of such happening causing delay, he shall give notice thereof in writing to the Contract Manager, but shall nevertheless do due diligence to bring down or make good the delays and to proceed with the services:

   a) Proceedings taken or threatened by or dispute with external third parties arising otherwise than from the Consultant's own default etc. or

   b) delay due to circumstances beyond the control of either party

   c) delay authorized by the Contract Manager pending arbitration or d)

   Any act or neglect of Procuring Entity, e.g.:

   i) Delay or failure to issue notice to commence the services or

   ii) delay or failure to issue necessary instructions for which the Consultant had applied explicitly in writing.

   iii) Delay in or failure to handover of possession of the site or the necessary facilities/ documents/ data or instructions by the Procuring Entity to the Consultant

   iv) Delay caused by modification issued by the Contract Manager or

   v) any other delay caused by the Procuring Entity due to any other cause.

2) The Consultant may also indicate the period for which the Services are likely to be delayed and ask for a necessary extension of time. On receipt of such request from the Consultant, the Contract Manager shall consider the same and grant such extension of time as, in his opinion, is reasonable regarding the nature and period of delay and the type and quantum of work affected thereby. No other compensation shall be payable for work carried forward to the extended period. The same rates, terms, and conditions as the original Contract shall apply during the extended period.

**9.4.4 Extension of Time for Inexcusable Delay Due to Consultant**

1) If the Consultant fails to deliver the Services within the fixed/ extended period for reasons other than those stipulated in GCC-clause 9.4.3 above, the Procuring Entity may, if satisfied that the service delivery can still be completed within a reasonable time, extend the period further.

2) On such extension, the Procuring Entity shall be entitled without prejudice to any other

right and remedy available on that behalf to recover from the Consultant as agreed damages and not by way of penalty Liquidated Damages as per GCC- clause 9.5 below.

3) Provided further that if the Procuring Entity is not satisfied that the service can be completed by the Consultant or in the event of failure on the part of the Consultant to complete the service within the extension of time allowed further as aforesaid, the Procuring Entity shall be entitled without prejudice to any other right or remedy available in that behalf, treat the delay as a breach of contract and avail any or all the remedies thereunder, whether or not actual damage is caused by such default.
4) Inordinate Delays: Delays due to the Consultant of more than one-fourth (25%) of the total completion period shall be treated as inordinate delays. Such inordinate delays shall be noted as poor performance and be held against the Consultant in future procurements. A show-cause notice shall be issued to the Consultant before declaring it a poor performance. Such delays may be considered a breach of the contract at the option of the Procuring Entity.

### 9.4.5 Extension of Time for Concurrent Delay Due to Both Parties

If the Contract Manager determines that two or more events responsible for delay overlap each other. The delays may be concurrently attributable to both Procuring Entity and the Consultant. The proportion for extension of time as per GCC-Clause 9.4.3 or 9.4.4 above shall be determined by plotting each contributing concurrent delay on the critical path.

## 9.5. Damages and Deductions Thereof

### 9.5.1 Right of the Procuring Entity to recover Damages.

Procuring Entity shall be entitled to, and it shall be lawful to recover Liquidated damages and any other penalty, if levied, as detailed in this clause from all payments due, any Performance Security, or any retention money.

### 9.5.2 Liquidated damages

1) For delays covered under clause 9.4.4 (Extension of Time for Inexcusable Delay Due to Consultant) above:
    a) The Procuring Entity shall, without prejudice to other rights and remedies available to the Procuring Entity under the contract, deduct from the contract price as liquidated damages for each week of delay or part thereof until actual delivery or performance, but not as a penalty, a sum equivalent to the 1% per cent (or any other percentage if prescribed) of the related monthly bill of the Services. Besides liquidated damages during such a delay, the denial clause as per GCC-clause 9.5.3 shall also apply. Total damages in the contract shall be limited as per clause 9.5.4 below.

    b) Any failure or delay by any Sub-consultant, though their employment may have been sanctioned, shall not be admitted as a ground for any extension of time or for

exempting the Consultant from liability for any such loss or damage as aforesaid.

9.5.3 **Denial Clause**:

1) For delays covered under clause 9.4.4 (Extension of Time for Inexcusable Delay Due to Consultant) above:
   a) no increases in price on account of any statutory increase in or fresh Imposition of GST, or on account of any other taxes/ duty/ cess/ levy) leviable in respect of the Services and incidental goods/ works stipulated in the said Contract which takes place after the original delivery date shall be admissible on such of the said Services, as are delivered after the said date; and
   b) Notwithstanding any stipulation in the contract for an increase in price on any other ground, including the price variation clause, no such increase after the original delivery date shall be admissible on such Services delivered after the said date.
   c) Nevertheless, the Procuring Entity shall be entitled to the benefit of any decrease in price on account of reduction in or remission of GST or on account of any other tax or duty or any other ground as stipulated in the price variation clause, which takes place after the expiry of the original delivery date.

**9.5.4 Limit on total Damages**

However, deduction on account of damages for delays under this clause put together shall be subject to a maximum of 10% of the entire value of the Contract of Services or the amount of performance security, which ever is higher. Penalties/ liabilities outside this clause shall be covered by GCC clause 12.

## 9.6. Force Majeure

1) On the occurrence of any unforeseen event beyond the control of either Party, directly interfering with the delivery of Services arising during the currency of the contract, such as war, hostilities, acts of the public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes, lockouts, or acts of God, the affected Party shall, within a week from the commencement thereof, notify the same in writing to the other Party with reasonable evidence thereof. Unless otherwise directed by the Procuring Entity in writing, the Consultant shall continue to perform its obligations under the contract as reasonably practicable and seek all reasonable alternative means for performance not prevented by the Force Majeure event. If the force majeure condition(s) mentioned above be in force for 90 days or more at any time, either party shall have the option to terminate the contract on expiry of 90 days of commencement of such force majeure by giving 14 days' notice to the other party in writing. In case of such termination, no damages shall be claimed by either party against the other except those which had occurred under any other clause of this Contract before such termination.
2) Notwithstanding the remedial provisions contained in GCC-clause 9.5 and 12, none of the Party shall seek any such remedies or damages for the other Party's delay and/ or failure in fulfilling its obligations under the contract if it is the result of an event of Force Majeure.

# 10. Prices and Payments

## 10.1. Prices

### 10.1.1 Contract Price

1) The Contract price is outlined in the Contract. The Contract price breakdown is provided in Appendix C, and the total payments under this Contract shall not exceed this Contract price.
2) Any change to the Contract price specified above can be only made if the Parties have agreed to the revised scope of Services under GCC clause 2.6 and have amended the Terms of Reference in Appendix A in writing.

### 10.1.2 Firm Prices

Unless otherwise stipulated in the contract, Prices shall be fixed and firm. If the Price Variation Clause is included, such up and down, variations shall also be payable.

### 10.1.3 Variations

In case the Contract provides for a Price Variation Clause or variation on any other account, the price shall be subject to adjustment as per such clauses only during the original Delivery Period, subject to the following:

1) For Extension of Time covered by clause 9.4.5 above, any increase due to such variations during the extended delivery period beyond the original delivery period shall not be paid by the Procuring Entity; however, it shall be entitled to any reduction under GCC clause- 9.5.3 (Denial Clause).
2) Taxes and duties, if any, chargeable and payable on the Services shall be charged on the nett price after variations.
3) While claiming payments where such variations are applicable, the Consultant must submit its calculations for each invoice, even if the payment for these variations is nil. Any price reduction due to such variations must be passed to the Procuring Entity.
4) No Other Claim due to Variations: With the payment of such variations, no additional individual claim shall be admissible on account of fluctuations in market rates, increase in taxes/any other levies/tolls etc.
5) If the Price Variation clause is applicable as per the contract, the price shall be subject to adjustment to take care of the changes in the cost of labour, material, and fuel/ power components as per the price variation formula specified therein.
6) Base Month: Unless otherwise stipulated in the contract, the 'Base Month' for the 'Price Variation Clause' shall be taken as the month before the month of the last date of Proposal submission. Unless the contract has stipulated a different time lag for reckoning Price Variation, the month of reckoning the variated price shall be the month before the month in which delivery has been made. The Price Variation shall be based on the relevant Indices in the Base Month and Month of reckoning.
7) Applicability: If the Contract provides for some inputs to be supplied by Procuring Entity free or at a fixed rate, the cost of such inputs shall be excluded from the value of the Goods supplied in the relevant month for payment/recovery Of price variation.

**10.2. Taxes and Duties**

1) The Consultant, Sub-consultants, and Experts shall be entirely responsible for all taxes, duties, fees, levies etc., incurred relating to the delivery of the Services. Further instruction, if any, shall be as provided in the Contract.

2) If applicable under relevant tax laws and rules, the Procuring Entity shall deduct from all payments and deposit required taxes to respective authorities on account of GST Reverse Charge Mechanism; Tax Deducted at Source (TDS), and Tax Collected at Source (TCS) relating to Income Tax, labour cess, royalty etc.

3) **Payment of GST Tax under the contract:**

(a) The payment of GST and GST Cess to the Consultant shall be made only on the latter submitting a GST compliant Bill/ invoice indicating the appropriate HSN code and applicable GST rate duly supported with documentary evidence as per the provision of the relevant GST Act and the Rules made there under. The delivery of Services shall be shown as being made in the name, location/ state, and GSTIN of the beneficiary of the Services only; the location of the procurement office of the procuring entity has no bearing on the invoicing.

(b) Provision w.r.t. E-Invoicing requirement as per GST laws: Consultant who is required to comply with the requirements of E-invoice as per the GST Law, all payments shall be made against proper e-invoice(s) only. Invoices issued in violation shall not be processed for payment, as Procuring Entity shall not be allowed to avail of Input Tax Credit (ITC) against such invoices.

(c) Returns and details required to be filled under GST laws & rules regarding invoices (or e-invoices) should be filed promptly by the Consultant. If input tax credit (ITC) is not available to Procuring Entity for any reason attributable to the Consultant, then Procuring Entity shall not be liable to pay or reimburse GST (CGST & SGST/UTGST or IGST) claimed in the invoice(s) and shall be entitled to deduct / setoff/ recover such GST amounts (CGST & SGST/UTGST or IGST) together with penalties and interest, if any, by adjusting against any amounts paid or becomes payable in future to the Consultant under this contract or under any other contract.

(d) While claiming reimbursement of duties, taxes etc. (like GST) from the Procuring Entity, as and if permitted under the contract, the Consultant shall also certify that in case it gets any refund out of such taxes and duties from the concerned authorities at a later date, it (the Consultant) shall refund to the Procuring Entity, the Procuring Entity's share out of such refund received by the Consultant. The Consultant shall also refund the appropriate amount to the Procuring Entity immediately after receiving the same from the concerned authorities.

(e) All necessary adjustment vouchers, such as Credit Notes/ Debit Notes for any short/ excess delivery of Services or revision in prices or any other reason under the contract, shall be submitted to the Procuring Entity in compliance with GST provisions.

(f) GST shall be paid as per the rate at which it is liable to be assessed or has been assessed, provided the provision of Services is legally liable to such taxes and is payable as per the terms of the contract subject to the following conditions:

i) The Procuring Entity shall not pay a higher GST rate if leviable due to any

misclassification of the HSN number or incorrect GST rate incorporated in the contract due to the Consultant's fault. Wherever the Consultant invoices the Goods at GST rate or HSN number, which is different from that incorporated in the contract, payment shall be made as per GST rate, which is lower of the GST rates incorporated in the contract or billed.

ii) However, the Procuring Entity shall not be responsible for the Consultant's tax payment or duty under a misapprehension of the law.

iii) The consultant is informed that he shall be required to adjust his basic price to the extent required by a higher tax rate billed as per invoice to match the all-inclusive price mentioned in the contract.

iv) In case of profiteering by the Consultant relating to GST tax, the Consultant shall treat it as a violation of the Code of Integrity in the contract and avail any or all punitive actions thereunder, in addition to recovery and action by the GST authorities under the Act.

(g) The Consultant should issue Receipt vouchers immediately on receipt of all types of payments along with tax invoices after adjusting advance payments, if any, as per Contractual terms and GST Provisions.

(h) Liquidated damages or any other recoveries should be shown as deductions on the invoice, and GST shall be applicable only on the net balance payment due.

4) **Statutory Variation Clause**: Unless otherwise stated in the contract, statutory increase in applicable GST rate only during the original delivery period shall be to Procuring Entity's account. Any increase in the rates of GST beyond the original completion date during the extended delivery period (excepting extension under GCC-Clause 9.4.3) shall be borne by the Consultant. The benefit of any reduction in the GST rate must be passed on to the Procuring Entity during the original and extended delivery period. However, GST rate amendments shall be considered for quoted HSN code only, against documentary evidence, provided such an increase of GST rates occurs after the last proposal submission date.

**10.3. Terms and Mode of Payment**

1) Unless otherwise stipulated, the usual payment term is 100% on delivery and acceptance of Services at 'the Site' by the Procuring Entity and the Consultant's production of all required documents.

2) The payments shall be made as per Procuring Entity's payment procedures. Unless otherwise stipulated in the contract, payments above INR 5,000 (or any other specified threshold) to Consultants shall only be made through EFT (Electronic Funds Transfer). The Consultant shall consent in a mandate form for receipt of payment through NEFT (National Electronic Fund Transfer). In case of non-payment through EFT or where the EFT facility is unavailable, payment may be released through cheque.

3) In Domestic Contracts, payments shall only be made in Indian Rupees. In Global Tenders, payment to foreign Consultants shall be made in the currency/ currencies authorized in the contract. However, agency commission and local value addition shall be paid only in Indian Rupees.

4) The Consultant shall send its claim for payment in writing as per GST-compliant Invoice and documents, when contractually due, along with relevant documents etc., as stipulated in the Contract and as specified therein.
5) While claiming payment, the Consultant is also to certify in the bill that the payment being claimed is strictly in terms of the contract and all the Consultant's obligations for claiming that payment has been fulfilled as required.

10.4. Withholding and lien in respect of sums claimed:

1) Whenever any claim or claims for payment of a sum of money arises against the Consultant, out of or under the contract, the Procuring Entity shall be entitled, and it shall be lawful on his part, to withhold and also have a lien to retain such sum or sums, in whole or in part pending finalisation or adjudication of any such claim from
-
    a) any security or retention money, if any, deposited by the Consultant.
    b) Any sum(s) payable till now or hereafter to the Consultant under the same Contract or any other contract with the Procuring Entity if the security is insufficient or if no security has been taken from the Consultant.
2) Where the Consultant is a partnership firm or a limited company, the Procuring Entity shall be entitled, and it shall be lawful on his part, to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner/ limited company, as the case may be, whether in his capacity or otherwise.
3) It is an agreed term of the contract that the sum(s) of money so withheld or retained under the lien referred above shall be kept withheld or retained till the claim arising out of or under the contract is determined under GCC clauses 11 and/ or 12. The Consultant shall have no claim for interest or damages whatsoever on any account regarding such withholding or retention under the supra lien and duly notified to the Consultant.
4) Lien in respect of Claims in other Contracts: Any sum of money due and payable to the Consultant (including the security deposit returnable to him) under the contract may be withheld or retained by way of lien by the Procuring Entity or Government against any claim of the Procuring Entity or Government in respect of payment of a sum of money arising out of or under any other contract made by the Consultant with the Procuring Entity or Government.

10.5. **Payments to Consultant**

**10.5.1 General**

1) All payments under this Contract shall be made to the Consultant's accounts Specified in the contract.
2) Currency of Payment: Unless otherwise specified in the Contract, any payment shall be made in Indian Rupees (INR).
3) The Itemized Invoices: As soon as practicable and not later than fifteen (15) days after the end of each time interval stipulated in the Contract in this regard (if not stipulated, then after the end of each calendar month), the Consultant shall submit to the Procuring Entity, in duplicate, itemized invoices, accompanied by the receipts or other appropriate supporting documents, of the amounts payable for such an interval under GCC Clause 10.5. Separate

invoices shall be submitted for expenses incurred in foreign and local currencies. Each invoice shall show remuneration and reimbursable expenses separately.

4) The Contract Manager shall cross-check all relevant records before passing the Consultant's bills. Upon verification of the records by Procuring Entity, payments can be released to the Consultant.

5) The Procuring Entity shall pay the Consultant's invoices within thirty (30) days after the receipt by the Procuring Entity of such itemized invoices with supporting documents. Only a portion of an invoice not satisfactorily supported may be withheld from the payment. Should any discrepancy exist between actual payment and costs authorized to be incurred by the Consultant, the Procuring Entity may add or subtract the difference from subsequent payments. If payment of the portion supported with documents not made wthin 30 days from date of receipt, the procuring entity shall pay interest @9% per annum for such delayed payments.

6) Except for the final payment under GCC Clause 10.5.5 below, payments do not constitute acceptance of the Services nor relieve the Consultant of any obligations.

7) Time-Based (Inputs admeasurement): Unless instructed in writing by the Procuring entity, payments shall not be made for any extra inputs deployed over and above Annexure A, Annexure B, or Annexure C mentioned in the contract. Nevertheless, if such inputs are deployed less than those stipulated, deductions shall be made based on the rates indicated for the inputs listed in Annexures C and D in the contract.

**8) The remuneration for professional staff (Key personnel and sub professional staff quoted in Appendix C-1 shall be credited into a separate Escrow Account wherein release of the remuneration of the Key-Personnel in their respective salary account would be jointly regulated by the Authority and AE firm. The remaining payment (after deducting the remuneration of professional staff and any other deduction) as quoted by the consultant shall be credited in the bank account of the consultant firm. All payment of salary to all key personnel in their respective bank accounts through electronic mode only. No cash transaction w.r.t salary will be made.**

8) Consultants shall be paid billing rates for services rendered by the personnel of all categories namely (i) key Personnel; (ii) sub-Professional personnel and (iii) Support staff on man-month basis (iv) transportation, (v) Duty travel to site (vi) Office Rent, (vii) office supplies communication etc. (viii) reports & document printing and (ix) survey equipment etc.

9) Beginning 13th months from the last date of submission of bid, billing rates shall be increased to cover all items of contract i.e. remuneration, vehicle hire, office rent, consumables, furniture etc. @ percentage equivalent to 90% of [{(average AICPI in last 12 month- AICPI of the month preceding last 12 months)/ AICPI of the month preceding last 12 months}x 100]. However, for evaluation and award of the Bid proposals, the quoted initial rate (as applicable for first 12 months from last date of submission of bid) shall be multiplied by the total time input for each position on this contract, i.e. without considering the increase in the billing rates. All payments shall be made in Indian Rupees and shall be subjected to applicable Indian laws withholding taxes if any. Remuneration paid pursuant to the rates set forth in Appendix- C shall be adjusted every twelve (12) months (and, the first time, with effect for the billing rates earned in the 13th calendar month after the last date of submission of bid). Notwithstanding any other provisions in the agreement in this regard, this provision will prevail and override any other provision to the contrary in this agreement

10) Payment of Authority Engineer shall be released on approval of the monthly reports. Report shall be approved by the Authority only if it includes all the sections prescribed in the format and submitted as per specified timeline. If Monthly report (submitted in complete format) is not approved within 15 days from date of submission, the same shall be considered as deemed approved for the purpose of release of payment.

11) Payment shall be released as per rates quoted in Appendix C3- Breakup of Local currency costs

12) For equipment based road inspection to be conducted in O&M phase, payment shall be released as per actual use of equipment on road and rates quoted in Appendix C3- Breakup of Local currency costs.

13) If any of the report is found to be misleading or containing incorrect information as determined by the Authority, 10% of payment linked to that report shall be deducted as penalty

14) It is understood(i)that the remuneration rates shall cover(A) such salaries and allowances as the Consultants shall have agreed to pay to the Personnel as well as factors for social charges and overhead, and (B)the cost of back stopping by home office staff not included in the Personnel listed in Appendix C, and*(C)*the Consultants' fee;(ii)that bonuses or other means of profit-sharing shall not be allowed as an element of overhead, and(iii)that any rates specified for persons not yet appointed shall be provisional and shall be subject to revision, with the written approval of the Client, once the applicable salaries and allowances are known.

15) Remuneration for periods of less than one month shall be calculated on an hourly basis for actual time spent in the Consultants' home office and directly attributable to the Services (one hour being equivalent to 1/240th of a month) and on a calendar-day basis for time spent away from home office (one day being equivalent to 1/30th of a month).

10.5.2 The rates for foreign and local Personnel are set forth in Appendix C-1.

**10.5.3 Advance Payments**

1) If the contract provides explicitly for Advance Payments to be made to the Consultant, then on the request of the Consultant, the Procuring Entity shall make the advance payment to the Consultant against submission of an unconditional Bank Guarantee from a Commercial bank acceptable to the Procuring Entity in amounts equal to 110% (one hundred ten per cent) of the amount of the advance payment being requested. Such Bank Guarantee shall be in the form outlined in Appendix E-2 or the other form the Procuring Entity shall have approved in writing. Advance payments shall be released in not less than two installments commensurate with work progress.

2) The Bank Guarantee shall remain effective until the advance payment has been repaid, but the amounts repaid by the Consultant shall progressively reduce the guaranteed amount. Interest shall not be charged on the advance payment. However, if the contract is terminated due to the Consultant's default, the Advance payment shall be deemed an interest-bearing advance at the prevailing rate (MIBID - Mumbai Inter bank Proposal Rate) on the date of such advance payment.

3) The Consultant is to use the advance payment only for the performance of Services. The Consultant shall demonstrate that the advance payment has been used by Utilization certificate enclosing copies of invoices or other documents to the Contract Manager. Further installments shall be released after getting a satisfactory utilization certificate from the Consultant for the earlier instalment.

4) The advance payment shall be recovered in a time-based manner not linked with the work progress by deducting proportionate amounts from payments otherwise due to the Consultant for the Services performed. Any delayed recoveries due to the late submission of bills by the Consultant shall attract interest at the prevailing rate (MIBID - Mumbai Inter bank Proposal Rate). No account of the advance payment or repayment shall be taken in assessing valuations of Services performed, variations, price adjustments, or liquidated damages.

10.5.3 **Remuneration and Reimbursable Expenses**

a) The Procuring Entity shall pay to the Consultant (i) remuneration that shall be determined based on time spent by each Expert in the performance of the Services after the date of commencing of Services or such other date as the Parties shall agree in writing; and (ii) reimbursable expenses that are actually and reasonably incurred by the Consultant in the performance of the Services.

b) All payments shall be at the rates outlined in Appendix C and Appendix D.

c) Unless the Contract provides for the price adjustment of the remuneration rates, said remuneration shall be fixed for the duration of the Contract.

d) The remuneration rates shall cover: (i) such salaries and allowances as the Consultant shall have agreed to pay to the Experts as well as factors for social charges and overheads (bonuses or other means of profit-sharing shall not be allowed as an element of overheads), (ii) the cost of backstopping (reinforcement/ support) by home office staff not included in the Experts' list in Appendix B, (iii) the Consultant's profit, and (iv) any other items as specified in the contract.

e) Any rates specified for Experts not yet appointed shall be provisional and be subject to revision, with the written approval of the Procuring Entity once the applicable remuneration rates and allowances are known.

**10.5.4 "On-Account" Payments**

1) the Consultant shall be entitled to be paid (unless otherwise stipulated in the contract) by way of "On-Account" payment, only for such Services, as in the opinion of the Contract Manager, the Consultant has executed in terms of the contract during the period. All payments due against the Contract Manager or his representative's certificates shall be subject to any deductions, which may be made under the contract, always provided that the Contract Manager may by any certificate make any correction or modification in any previous certificate, which he may have issued. The Contract Manager may withhold any certificate if the Services or any part thereof are not carried out as per the contractual performance standards.

2) On-Account Payments Not Prejudicial to Final Settlement: "On-Account" payments made to the Consultant shall be without prejudice to the final settlement of the accounts. They shall not be considered or used as evidence of any facts stated in or inferred from such

accounts, any particular quantity of service being executed, or the manner of its execution being satisfactory.

3) The Final Payment:

### 10.5.5 Final Payment

1) The final payment under this Clause shall only be made after the final report/ deliverables and a final invoice, identified as such, shall have been submitted by the Consultant and approved as satisfactory by the Procuring Entity. Completion certificate/ Final payment shall be made only after ensuring that all facilities/ documents/ sites have been returned to the Procuring Entity as per GCC clause

5.14. The Services shall be deemed completed and finally accepted by the Procuring Entity.

2) The Consultant shall submit a final bill on the Contract Manager's acceptance certificate of final deliverables. The Final payment shall be made as per the following calculations after receiving a clear "No Claim Certificate" signed by the Consultant:
   a) necessary adjustment for any payments already made or retained
   b) any deduction which may be made under the contract,
   c) A complete account of all claims the Consultant may have on the Procuring Entity, and the Contract Manager gave a certificate in writing that such claims are correct,
3) The final report and final invoice shall be deemed approved by the Procuring Entity as satisfactory ninety (90) calendar days after receipt of the final report and final invoice by the Procuring Entity unless the Procuring Entity, within such ninety (90) calendar day period, gives written notice to the Consultant specifying in detail deficiencies in the Services, the final report or final invoice. The Consultant shall promptly make any necessary corrections, and the preceding process shall be repeated.
4) Any amount that the Procuring Entity has paid or has caused to be paid under this Clause more than the amounts payable under the provisions of this Contract shall be reimbursed by the Consultant to the Procuring Entity within thirty (30) days after
   receipt by the Consultant of notice thereof. Any such claim by the Procuring Entity for reimbursement must be made within twelve (12) calendar months after receipt by the Procuring Entity of a final report and a final invoice approved by the Procuring Entity in accordance with the above.

### 10.5.6 No Claim Certificate and Release of Contract Securities

The Consultant shall submit a 'No-claim certificate' to the Procuring Entity in such format shall be required by the Procuring Entity after the Services are finally accepted and before the final payment/ performance securities are released. The Procuring Entity shall release the contractual securities without any interest if no outstanding obligation, asset, or payments are due from the Consultant. The Consultant shall not be entitled to make any claim whatsoever against the Procuring Entity under or arising out of this Contract, nor shall the Procuring Entity entertain or consider any such claim, if made by the Consultant, after he shall have signed a "No Claim" Certificate in favour of the Procuring Entity. The Contractor shall be debarred from disputing the correctness of the items covered by the "No Claim" Certificate or demanding arbitration.

### 10.5.7 Post Payment Audit

Notwithstanding the issue of the Completion Certificate and release of final Payment, the Procuring Entity reserves the right to carry out within 180 days (unless otherwise stipulated in the contract) of such completion/ final payment, a post-payment audit and/ or technical examination of the Services and the final bill including all supporting vouchers, abstracts etc. If any over-payment to the Consultant is discovered due to such examination, the Procuring Entity shall claim such amount from the Consultant.

### 10.5.8 Signature on Receipts for Amounts

Every receipt for money, which may become payable, or for any security which may become transferable to the contractors under the contract, shall be signed by a person authorized to do so by the Consultant (or otherwise as per GCC-Clause 4.2), to be a suitable and sufficient discharge to the Procuring Entity in respect of the sums of money or security purported to be acknowledged thereby. In the event of the death of any Consultant or partner during the pendency of the contract, every receipt by anyone of the surviving constituents shall be suitable and sufficient discharge as aforesaid. Nothing in this Clause shall be deemed to prejudice or effect any claim that the Procuring Entity may have against the legal representative regarding any breach of any contract conditions by any Consultant partner/member so dying. Nothing in this clause shall be deemed to prejudice or affect the respective rights or obligations of the Consultant partners/ members and the legal representatives of any deceased Consultant partners/ members.

## 10.6. Suspension of Payments

The Procuring Entity may, by written notice of suspension to the Consultant, suspend part or all payments to the Consultant hereunder if the Consultant fails to deliver the Services as per the Terms of Reference, including the non-rectification of notified defects in the Services/ deliverables, provided that such notice of suspension (i) shall specify the nature of the failure, and (ii) shall request the Consultant to remedy such failure within a period not exceeding thirty (30) calendar days after receipt by the Consultant of such notice of suspension. Such a suspension shall not entitle the Consultant to any extension of time for delivery of Service.

## 10.7. Payment Against Time-Barred Claims

In accordance with the Limitation Act 1963, all claims against the Procuring Entity shall be legally time-barred after three years calculated from when the payment falls due unless the payment claim has been under correspondence. The Procuring Entity is entitled to, and it shall be lawful to reject such claims.

## 10.8. Commissions and Fees

The Consultant shall disclose any commissions or fees that may have been paid or are to be paid to agents, representatives, or commission agents concerning the selection process or execution and performance of this Contract. The information disclosed must include the name and address of the agent, representative, or commission agent, the amount and currency, and the purpose of the commission or fee.

# 11. Resolution Disputes

## 11.1. Disputes and Excepted Matters

All disputes and differences between the parties hereto, as to the construction or operation of this Contract, or the respective rights and liabilities of the parties on any matter in question, or any other account whatsoever, but excluding the Excepted Matters (detailed in GCC-Clause 11.2 below); arising out of or in connection with the contract, within thirty (30) days from aggrieved Party notifying the other Party of such matters; whether before or after the completion/ termination of the contract, that cannot be resolved amicably between the Contract Manager and the Consultant, shall be hereinafter called the "Dispute". The aggrieved party shall give a 'Notice of Dispute' indicating the Dispute and claims citing the relevant Contractual clause to the designated authority requesting invoking the following dispute resolution mechanism. Before any recourse to courts, the dispute shall be resolved through dispute resolution mechanisms detailed subsequently in the sequence mentioned below, and the next mechanism shall not be invoked unless the earlier mechanism has been invoked or has failed to resolve it within the deadline mentioned therein.

1) Adjudication
2) Conciliation
3) Arbitration

## 11.2. Excepted Matters

Matters for which provision has been made in any Clause of the contract shall be deemed as 'excepted matters' (matters not disputable/ arbitrable), and decisions of the Procuring Entity, thereon, shall be final and binding on the Consultant. The 'excepted matters' shall stand expressly excluded from the purview of the sub-clauses below, including Arbitration.
However, where the Procuring Entity has raised the dispute, this sub-clause shall not apply.
Unless otherwise stipulated in the contract, excepted matters shall include but are not limited to:

1) Any controversies or claims brought by a third party for bodily injury, death, property damage or any indirect or consequential loss arising out of or in any way related to the performance of this Contract ("Third Party Claim"), including, but not limited to ,a Party's right to seek contribution or indemnity from the other Party in respect of a Third-Party Claim.
2) Issues related to the pre-award Procurement Process or conditions
3) Issues related to ambiguity in Contract terms shall not be taken up after a Contract has been signed. All such issues should be highlighted before the signing of the contract by the Consultant.
4) Provisions incorporated in the contract which are beyond the purview of The Procurement Entity or are in pursuance of policies of Government, including but not limited to
    a) Provisions of restrictions in terms of the Make in India policy of the Government
    b) Provisions regarding restrictions on Entities from Countries having land borders with India in terms of the Central Government's policies in this regard.
    c) Relaxations stipulated for Startups etc.

## 11.3. Adjudication

After exhausting efforts to resolve the Dispute with the Contract Manager executing the contract

on behalf of the Procuring Entity, the Consultant shall give a 'Notice of Adjudication' specifying the matters which are in question or subject of the dispute or difference indicating the relevant contractual clause, as also the amount of claim item-wise to Head of Procurement or any other authority mentioned in the contract (hereinafter called the "Adjudicator") for invoking resolution of the dispute through Adjudication. During his adjudication, the Adjudicator shall give adequate opportunity to the Consultant to present his case. Within 60 days after receiving the representation, the Adjudicator shall make and notify decisions in writing on all matters referred to him. During the adjudication proceedings, the parties shall not initiate any conciliation, arbitral, or judicial proceedings in respect of a dispute that is the subject matter of the adjudication proceedings. If not satisfied by the decision in adjudication, or if the adjudicator fails to notify his decision within the abovementioned time-frame, the Consultant may proceed to invoke the process of Conciliation as follows.

**11.4. Conciliation of disputes**

1) Parties may invoke Conciliation, in terms of the Arbitration and Conciliation Act 1996, by submitting a "Notice of Conciliation" to the other party with a request to the Head of the Procuring Organisation to notify a Conciliator. Since conciliation is voluntary, within 30 days of "Notice of Conciliation", the Head of the Procuring Organisation shall notify a sole Conciliator if the other party is agreeable to entering Conciliation. If the other party is not agreeable to Conciliation, the aggrieved party may invoke Arbitration.
2) The Conciliator shall proactively assist the parties to reach an amicable settlement independently and impartially within the contract terms within 60 days from the appointment date.
3) If the parties agree on a dispute settlement, they shall draw up a written settlement agreement duly signed by the parties and conciliator. When the parties sign the settlement agreement, it shall be final and binding on the parties. The dispute shall be treated as resolved on the date of such agreement.
4) During the conciliation proceedings, the parties shall not initiate any arbitral or judicial proceedings in respect of a dispute that is the subject matter of the conciliation proceedings.
5) Termination of Conciliation: Disputes shall remain alive if the conciliation is terminated as follows:
    a) By written declaration of the conciliator, after consultation with the parties, to the effect that further efforts at conciliation are no longer justified on the date of such declaration; or
    b) By a written declaration of any party to the conciliator to the effect that the conciliation proceedings are terminated on the date of such declaration; or
    c) If the parties fail to reach an agreement on a settlement of the dispute within 60 days of the appointment of the Conciliator
6) On termination of Conciliation, the aggrieved party shall be free to invoke Arbitration if the dispute is still alive.

## 11.5. Arbitration Agreement

### 11.5.1 This Agreement

1) This Arbitration Agreement (hereinafter referred to as this "Agreement") relating to this Contract (hereinafter called the "Main Agreement" for this agreement) is made under the provisions of The Arbitration and Conciliation Act, 1996, as amended from time to time and the rules thereunder (hereinafter called The Arbitration Act). This Agreement shall continue to survive termination, completion, or closure of the Main Agreement for 120 days afterwards.
2) Subject to aforesaid provisions, relevant clauses of the contract shall apply to the appointment of arbitrators and arbitration proceedings under this Agreement.
3) The Micro, Small and Medium Enterprises Development (MSMED) Act, 2006 provides parties to a dispute (where one of the parties is a Micro or Small Enterprise) to be referred to the Micro and Small Enterprises Facilitation Council if the dispute is regarding any amount due under Section 17 of the MSMED Act, 2006. If a Micro or Small Enterprise, being a party to dispute, refers to the MSMED Act 2006, these provisions shall prevail over this Agreement. However, if an arbitrator has already been appointed under this agreement before the appointment of a conciliator/ arbitrator by the facilitation council, the arbitrator already appointed under this agreement shall continue to perform the duties including on matters related to delayed payments. Such an arbitrator shall be deemed to be the arbitrator appointed by the facilitation council. None of the parties shall approach the facilitation council to appoint an arbitrator once an arbitrator under this agreement has already been appointed.

### 11.5.2 Notice for Arbitration

1) Authority to Appoint Arbitrator(s): For this Arbitration Agreement, 'The Appointing Authority' to appoint the arbitrator shall be Head of the Procuring Organisation or any other authority or Arbitration Institution named in the contract and includes if there be no such authority, the officer who is for the time being discharging the functions of that authority, whether in addition to other functions or otherwise.
2) In the event of any dispute as per GCC-clause 11.1 above, if the Adjudicator fails to decide within 60 days (as referred in 11.3 above), or the Conciliation is terminated (as referred in sub-clause 11.4 above), then any party to the contract, after 60 days but within 120 days of 'Notice of Dispute" (clause 11.1 above) shall request the other party through a "Notice for Arbitration" in writing that the dispute or difference be referred to arbitration.
3) The "Notice for arbitration" shall specify the matters in question or the subject of the dispute or difference, indicating the relevant contractual clause and the amount of claim item-wise.

### 11.5.3 Reference to Arbitration

After appointing Arbitrator(s), the Appointing Authority shall refer the Dispute to them. Only such dispute or difference shall be referred to arbitration regarding which the demand has been made, with counter-claims or set off. Other matters shall be beyond the jurisdiction of the Arbitrator(s)

### 11.5.4 Appointment of Arbitrator

1) **Qualification of Arbitrators:**
    a) In the case of retired officers of The Procuring organization, they shall have retired in the rank of Senior administrative grade (or equivalent) and shall have retired at least 1 year prior and must not be over 70 years of age on the date of Notice for arbitration.
    b) The arbitrator(s) shall be expert with extensive experience in relation to the matter in dispute.
    c) He/ they shall not have had an opportunity to deal with the matters to which the contract relates or who, in the course of his/ their duties as an officer of the Procuring Organisation, expressed views on any or all of the matters under dispute or differences. A certification to this effect (as per Format 1.1.4) shall be taken from Arbitrators. The proceedings of the Arbitral tribunal or the award made by such Tribunal shall, however, not be invalid merely for the reason that one or more arbitrators had, in the course of his service, an opportunity to deal with the matters to which the contract relates or who in the course of his/ their duties expressed views on all or any of the matters under dispute.
    d) An Arbitrator may be appointed notwithstanding the total number of arbitration cases in which he has been appointed.
    e) Not be other than the person appointed by The Appointing Authority, and if for any reason that is not possible, the matter shall not be referred to arbitration.

2) **Replacement of Arbitrators**

    If one or more of the arbitrators appointed as above refuses to act as arbitrator, withdraws from his office as arbitrator, or in the event of the arbitrator dying, neglecting/ unable or unwilling or refusing to act for any reason, or his award being set aside by the court for any reason, or in the opinion of The Appointing Authority fails to act without undue delay, the Appointing Authority shall appoint new arbitrator/ arbitrators to act in his/ their place in the same manner in which the earlier arbitrator/ arbitrators had been appointed. Such a re-constituted Tribunal may, at its discretion, proceed with the reference from the stage at which it was left by the previous arbitrator (s).

3) **Appointment of Arbitrator:**
    a) In cases where the total value of all claims in question added together does not exceed Rs 50,00,000/ - (Rupees Fifty Lakh only), the Arbitral Tribunal shall consist of the sole Arbitrator. For this purpose, The Appointing Authority shall send to the Consultant, within 60 days from receipt of a written and valid notice for arbitration, a panel of at least four (4) names of retired officers duly indicating their retirement dates.
    b) The Consultant shall be asked to nominate at least two names out of the panel for appointment as his nominee within 30 days from the dispatch date of the request by The Appointing Authority. The Appointing Authority shall appoint at least one out of them as the sole arbitrator within 30 days from the receipt of the names of the Consultant's nominees.

c) In cases where the total value of all claims in question added together exceeds Rs 50,00,000/ - (Rupees Fifty Lakh only), the Arbitral Tribunal shall consist of three (3) retired Officers of the Procuring Organisation. arbitrators. For this purpose, The Appointing Authority shall send a panel of at least four (4) names of such Officer(s) empanelled to work as Arbitrators duly indicating their retirement date to the Consultant within 60 days from the day when a written and The Appointing Authority receives valid demand for arbitration.

d) The Consultant shall be asked to nominate at least 2 names out of the panel for appointment as his nominee within 30 days from the dispatch date of the request by The Appointing Authority. The Appointing Authority shall appoint at least one of them as the Consultant's nominee. It shall also simultaneously appoint the balance number of arbitrators from the panel or outside the panel, duly indicating the 'Presiding Arbitrator' from amongst the 3 arbitrators so appointed within 30 days from the receipt of the names of the Consultant's nominees.

e) If the Consultant does not suggest his nominees for the arbitral tribunal within the prescribed timeframe, The Appointing Authority shall proceed to appoint the arbitral tribunal within 30 days of the expiry of such a time Provided to the Consultant.

### 11.5.5 Failure to appoint Arbitrators.

If The Appointing Authority fails to appoint an arbitrator within 60 (sixty) days, then the Appointment of the Arbitrator may be sought under the relevant provision of the Arbitration and Conciliation Act 1996, as amended.

### 11.5.6 The Arbitral Procedure

1) **Effective Date of Entering Reference:** The arbitral tribunal shall be deemed to have entered the reference on the date the arbitrator(s) received notice of their appointment. All subsequent time limits shall be counted from such date.
2) **Seat and Venue of Arbitration:** The seat of arbitration shall be where the Letter of Award or the contract is issued. The venue of arbitration shall be the same as the seat of arbitration. However, in section 20 of The Arbitration Act, the arbitrator, at his discretion, may determine a venue other than the seat of the arbitration without affecting the legal jurisdictional issues linked to the seat of the arbitration.
3) If the Adjudication and/ or Conciliation mechanisms had not been exhausted before such a reference to Arbitration, the Arbitrator should ask the aggrieved party to approach the designated authority for such mechanisms before the Arbitration proceedings are started.
4) The claimant shall submit to the Arbitrator(s) with copies to the respondent his claims stating the facts supporting the claims along with all the relevant documents and the relief or remedy sought against each claim within 30 days from the date of appointment of the Arbitral Tribunal unless otherwise extension has been granted by Arbitral Tribunal.
5) On receipt of such claims, the respondent shall submit its defence statement and counter-claim(s), if any, within 60 days of receipt of the copy of claims, unless otherwise extension has been granted by Arbitral Tribunal.

6) No new claim shall be added during proceedings by either party. However, a party may amend or supplement the original claim or defence thereof during arbitration proceedings subject to acceptance by the Tribunal due to the delay in making it.
7) Statement of claims, counterclaims and defence shall be completed within six months from the effective reference date.
8) Oral arguments to be held on a day-to-day basis: Oral arguments as far as possible shall be heard by the arbitral tribunal daily, and no adjournments shall be granted without sufficient cause. The arbitrator (s) may impose an exemplary cost on the party seeking adjournment without sufficient cause.
9) Award within 12 (twelve) months: The arbitral tribunal is statutorily bound to deliver an award within 12 (twelve) months from when the arbitral tribunal enters reference. The award can be delayed by a maximum of six months under exceptional circumstances where all parties consent to such an extension. The court's approval shall require further extension if the award is not made out within an extended period. When an application for an extension of time is awaiting before the court, the arbitrator's proceedings shall continue until the disposal of the application.
10) Fast Track Procedure: The parties to arbitration may choose to opt for a fast-track procedure either before or after the commencement of the arbitration. The award in fast-track arbitration is to be made within six months, and the arbitral tribunal shall be entitled to additional fees. The salient features of fast-track arbitration are:
    a) The dispute is to be decided based on written pleadings only.
    b) Arbitral Tribunal shall have the power to call for clarifications and the necessary written pleadings.
    c) An oral hearing may only be held if all the parties request or the arbitral tribunal considers it necessary.
    d) The parties are free to decide the fees of the arbitrator(s) for a fast-track procedure.
11) Powers of Arbitral Tribunal to grant Interim Relief: The parties to arbitration may approach the arbitral tribunal to seek interim relief on the grounds available under section 9 of the act. The tribunal has the powers of a court while making interim awards in the proceedings before it.
12) Confidentiality: As provided in Section 42A of The Arbitration Act, all the details and particulars of the arbitration proceedings shall be kept confidential except in certain situations, like if the disclosure is necessary for the implementation or execution of the arbitral award.
13) Obligation During Pendency of Arbitration: Performance of the contract shall, unless otherwise directed by the Procuring Entity, continue during the arbitration proceedings, and no payment due or payable by the Procuring Entity shall be withheld on account of such proceedings, provided; however, it shall be open for Arbitral Tribunal to consider and decide whether or not the performance of the contract or payment therein should continue during arbitration proceedings.

### 11.5.7 The Arbitral Award

1) In the case of the Tribunal, comprising three members, any ruling on an award shall be made by a majority of members of the Tribunal. In the absence of such a majority, the views of the Presiding Arbitrator shall prevail.
2) The arbitral award shall state item-wise the sum and reasons it is based. The analysis and reasons shall be detailed enough to infer the award.
3) It is further a term of this arbitration agreement that where the arbitral award is for the payment of money, no interest shall be payable on the whole or any part of the money for any period till the date on which the award is made in terms of Section 31 (7) (a) of The Arbitration Act.
4) The arbitrator's award shall be final and binding on the parties to this Contract.
5) A party may apply for corrections of any computational errors, typographical orclerical errors, or any other error of similar nature occurring in the award or interpretation of a specific point of the award to the Tribunal within 60 days of receipt of the award.
6) A party may apply to the Tribunal within 60 days of receiving the award to make an additional award for claims presented in the arbitral proceedings but omitted from the arbitral award.

### 11.5.8 Savings

The Arbitral Tribunal shall decide any matter related to Arbitration not covered under this Arbitration Agreement as per the provisions of The Arbitration Act.

11.5.9 Cost of Arbitration and fees of the Arbitrator(s)

1) The concerned parties shall bear the arbitration cost as per section 31 (A) of The Arbitration Act. The cost shall inter-alia include fees of the Arbitrator. Further, the fees payable to the Arbitrator shall be governed by instructions issued on the subject by the Procuring Entity and/ or the Government from time to time, in line with the Arbitration and Conciliation Act, irrespective of the fact whether the Arbitrator is appointed by the Procuring Entity or the Government under this clause or by any court of law unless directed explicitly by Hon'ble court otherwise on the matter. A sole arbitrator shall be entitled to a 25% extra fee over such a prescribed fee.
2) The arbitrator shall be entitled to a 50 per cent extra fee if the award is made within 6 months as per provisions in section 29(A) (2) of The Arbitration Act. The Arbitrator shall also be entitled to this extra fee in cases where the Fast Track Procedure in section 29 (B) of The Arbitration Act is followed.

## 12. Defaults, Breaches, Termination, and closure of Contract

### 12.1. Termination due to Breach, Default, and Insolvency

#### 12.1.1 Defaults and Breach of Contract

In case the Consultant undergoes insolvency or receivership, neglects or defaults or expresses inability or disinclination to honour his obligations relating to the performance of the contract or ethical standards or any other obligation that substantively affects the Procuring Entity’s rights

and benefits under the contract, it shall be treated as a breach of contract. Such defaults could include inter-alia:

1) **Default in Performance and Obligations:** if the Consultant fails to deliver any or all of the Services or fails to perform any other contractual obligations (including Code of Integrity or obligation to maintain eligibility and evaluation criteria based on which contract was awarded) within the period stipulated in the contract or within any extension thereof granted by the Procuring Entity. In the case of a Joint Venture/Consortium, If the performance of any JV/C member is persistently un-satisfactory by the Procuring Entity in respect of the responsibilities assigned to him as per the JV agreement, which is part of this Contract. The lapse/ deficiencies in services as mentioned in ToR shall be treated as default in performance and Obligations.
2) **Insolvency:** If the Consultant being an individual or if a firm, any partner thereof, shall at any time be adjudged insolvent or shall have a receiving order or order for the administration of his estate made against him or shall take any proceeding for composition under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or enter into any assignment or composition with his creditors or suspend payment or if the firm be dissolved under the Partnership Act, or
3) **Liquidation:** if the Consultant is a company being wound up voluntarily, or by order of a Court or a Receiver, Liquidator or Manager on behalf of the Debenture-holders is appointed, or circumstances shall have arisen which entitle the Court or Debenture-holders to appoint a Receiver, Liquidator or Manager

### 12.1.2 Notice for Default:

As soon as a breach of contract is noticed, a show-cause 'Notice of Default' shall be issued to the Consultant, giving two weeks' notice, reserving the right to invoke contractual remedies. After such a show-cause notice, all payments to the Consultant would be suspended as per GCC clause 10.6 above to safeguard needed recoveries due to invoking contractual remedies.

### 12.1.3 Remedies for Breaches/ Default

In the event of an unsatisfactory resolution of 'Notice of Default' within two weeks of its issue as per the sub-clause above, the Procuring Entity, if so decided, shall

1) take one; or more of the following contractual remedies.
    a) Recover liquidated damages and invoke a denial clause for delays.
    b) In the case of JV/C, Procuring Entity may call upon the Lead Member to assign the work of the defaulting member to any other equally competent party acceptable to the Procuring Entity.
    c) Temporarily withhold payments due to the Consultant till recoveries due to invocation of other contractual remedies are complete.
    d) Call back any loaned property or payment advances with a levy of interest at the prevailing rate (MIBID - Mumbai Interbank Proposal Rate).
    e) Encash and/ or Forfeit performance or other contractual securities.
    f) Prefer claims against the insurance, if any.
    g) Terminate the Contract for default, fully or partially, including its right for Risk-and-Cost Procurement as per the following sub-clause.

h) Initiate proceedings in a court of law for the transgression of a law, tort, and loss not addressable by the other remedies above.

2) By written Notice of Termination for Default sent to the Consultant, terminate the contract in whole or in part, without compensation to the Consultant.
   a) Such termination shall not prejudice or affect the rights and remedies, including under the sub-clause below, which have accrued and/ or may accrue to the Procuring Entity after that.
   b) Unless otherwise instructed by the Procuring Entity, the Consultant shall continue to perform the contract to the extent not terminated.
   c) All Defect Liability obligations, if any, shall survive despite the termination.

3) Risk and Cost Procurement: In addition to termination for default, the Procuring Entity shall be entitled, and it shall be lawful on his part, to procure Services similar to those terminated, with such terms and conditions and in such manner as it deems fit at the "Risk and Cost" of the Consultant. Such Risk and Cost Procurement must be contracted within nine months from the breach of contract. The Consultant shall be liable for any loss which the Procuring Entity may sustain on that account provided the procurement, or, if there is an agreement to procure, such agreement is made. The Consultant shall not be entitled to any gain on such procurement, and the manner and method of such procurement shall be at the discretion of the Procuring Entity. It shall not be necessary for the Procuring Entity to notify the Consultant of such procurement. It shall, however, be at the discretion of the Procuring Entity to collect or not the security deposit from the firm/ firms on whom the contract is placed at the risk and cost of the defaulted firm.

#### 12.1.4 Limitation of Liability

Except in cases of criminal negligence or wilful misconduct, the aggregate liability of the Consultant to the Procuring Entity, whether under the contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the Consultant to indemnify the Procuring Entity concerning IPR infringement.

12.2. Termination for Default/ Convenience of Procuring Entity or Frustration of Contract

#### 12.2.1 Notice for Determination of Contract

1) The Procuring Entity reserves the right to terminate the contract, in whole or in part, for its (the Procuring Entity's) convenience or frustration of Contract as per the sub-clause below, by serving written 'Notice for Determination of Contract'on the Consultant at any time during the currency of the contract. The notice shall specify that the termination is for the Procuring Entity's convenience or the contract's frustration. The notice shall also indicate inter-alia, the extent to which the Consultant's performance under the contract is terminated, and the date from which such termination shall become effective.
2) Such termination shall not prejudice or affect the rights and remedies accrued and/ or shall accrue after that to the Parties.
3) Unless otherwise instructed by the Procuring Entity, the Consultant shall continue to perform the contract to the extent not terminated.
4) All Defect Liability obligations, if any, shall survive despite the termination.

5) The Services and incidental goods/works that can be delivered or performed within thirty days after the Consultant's receipt of the notice of termination shall be accepted by the Procuring Entity as per the contract terms. For the remaining Services and incidental goods/ works, the Procuring Entity may decide:
   a) To get any portion of the balance completed and delivered at the contract terms, conditions, and prices; and/ or
   b) To cancel the remaining portion of the Services and incidental goods/ works and compensate the Consultant by paying an agreed amount for the cost incurred by the Consultant, if any, towards the remaining portion of the Services and incidental goods/ works.

**12.2.2 Frustration of Contract**

1) **Notice of Frustration Event:** Upon a supervening cause occurring after the effective date of the contract, including a change in law, beyond the control of either party ,whether as a result of the Force Majeure clause (GCC 9.6) or within the scope of section 56 of the Indian Contract Act, 1872, that makes it impossible to perform the contract within a reasonable time frame, the affected party shall give a 'Notice of Frustration Event' to the other party giving justification. The parties shall use reasonable efforts to agree to amend the contract as necessary to complete its performance. However, if the parties cannot reach a mutual agreement within 60 days of the initial notice, the Procuring Entity shall issue a 'Notice for Determining the contract' and terminate the contract due to its frustration, as in the sub-clause above.
2) However, the following shall not be considered as such a supervening cause
   a) Lack of commercial feasibility or viability or profitability or availability of funds
   b) if caused by either party's breach of obligations under this Contract or failure to act in good faith or use commercially reasonable due diligence to prevent such an event.

**12.3. Closure of Contract**

12.3.1 Unless terminated earlier under GCC clauses 12.1 and 12.2 above, this Contract shall expire:
   1) At the end of such a period after the Effective Date as specified in the Contract.
   2) Upon successful performance of all obligations by both parties, including completion of Defect Liability obligations and final payment
   3) termination and settlements after that, if any, as per GCC clause 12.1 or 12.2 above.

**12.3.2 Cessation of Rights and Obligations**

Upon termination of this Contract under Clauses GCC 12.1 or 12.2 hereof or expiration of this Contract under GCC clause 12.3.1, all rights and obligations of the Parties hereunder shall cease, except (i) such rights and obligations as may have accrued on the date of termination or expiration, (ii) the obligation of confidentiality outlined in GCC clause 5.7. (iii) the Consultant's obligation to permit inspection, copying and auditing of their accounts and records outlined in GCC clause 5 and to cooperate and assist in any inspection or investigation,

and (iv) any right a Party may have under the Applicable Law.

#### 12.3.3 Cessation of Services

Upon termination of this Contract by notice under Clauses GCC 12.1 or GCC 12.2, the Consultant shall, immediately upon dispatch or receipt of such notice, take all necessary steps to bring the Services to a close in a prompt and orderly manner and shall make every reasonable effort to keep expenditures for this purpose to a minimum. Concerning documents prepared by the Consultant and equipment and materials furnished by the Procuring Entity, the Consultant shall proceed as provided by Clauses GCC 9.4 and GCC 5.14.

#### 12.3.4 Payments upon Termination

Upon termination of this Contract, the Procuring Entity shall make the following payments to the Consultant:

(a) payment for Services satisfactorily performed before the effective date of termination; and

(b) in the case of termination under GCC clause 12.2, reimbursement of any reasonable cost incidental to the prompt and orderly termination of this Contract, including the cost of the return travel of the Experts.

# 13. Code of Integrity in Public Procurement; Misdemeanors and Penalties

## 13.1. Code of Integrity

Procuring authorities as well as Consultants, suppliers, contractors, and consultants - should observe the highest standard of ethics and should not indulge in following prohibited practices, either directly or indirectly, at any stage during the Procurement Process or during the execution of resultant contracts:

1) "Corrupt practice" - making an offer, solicitation or acceptance of a bribe, reward or gift or any material benefit in exchange for an unfair advantage in the Procurement Process or to otherwise influence the Procurement Process;
2) "Fraudulent practice" - any omission or misrepresentation that may mislead or attempt to mislead so that financial or other benefits may be obtained or an obligation avoided. Such practices include a false declaration or false information for participation in a Procurement Process or to secure a Contract, or in the execution of the contract;
3) "Anti-competitive practice" - any collusion, Proposal-rigging or anti-competitive arrangement, or any other practice coming under the purview of the Competition Act, 2002, between two or more Consultants, with or without the knowledge of the Procuring Entity, that may impair the transparency, fairness, and the progress of the Procurement Process or to establish Proposal prices at artificial, non-competitive levels;
4) "Coercive practice" - harming or threatening to harm persons or their property to influence their participation in the Procurement Process or affect the execution of a contract;
5) "Conflict of interest" –participation by a bidding firm or any of its affiliates who are either

involved in the Consultancy Contract to which this procurement is linked; if they are part of more than one Proposal in the procurement; or if their personnel have a relationship or financial or business transactions with any official of procuring entity who are directly or indirectly related to tender or execution process of contract; or improper use of information obtained by the (prospective) Consultant from the Procuring Entity with an intent to gain unfair advantage in the Procurement Process or for personal gain;

6) "Obstructive practice" - materially impede procuring entity's investigation into allegations of one or more of the above-mentioned prohibited practices either by deliberately destroying, falsifying, altering; or concealing evidence material to the investigation; or by making false statements to investigators and/ or by coercive practices mentioned above, to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation, or by impeding the Procuring Entity's rights of an audit or access to information;

### 13.1. Obligations for Proactive Disclosures:

1) Procuring authorities, Consultants, suppliers, contractors, and consultants are obliged under this Code of Integrity to *suo-moto* proactively declare any violation of the Code of Integrity (pre-existing or as and as soon as these arise at any stage) in any Procurement Process or execution of the contract. Failure to do so shall amount to a violation of this code of integrity.

2) Any Consultant must declare, whether asked or not in a Proposal-document, any previous transgressions of such code of integrity during the last three years or of being under any category of debarment by the Central Government or the Ministry/ Department of the Procuring Organisation from participation in Procurement Processes. Failure to do so shall amount to a violation of this code of integrity.

### 13.2. Misdemeanours

The following shall be considered misdemeanours - if a Consultant, either directly or indirectly, at any stage during the Procurement Process or during the execution of resultant contracts:

1) Commits any of the following misdemeanours:
   (a) Violates the code of Integrity mentioned in GCC-clause 13.1 or the Integrity Pact if included in the Tender/ Contract;
   (b) Any other misdemeanour, e.g., supply of sub-standard quality of material/ services/ work, non-performance or abandonment of contract, or violations of Bid/ performance Security conditions.

2) Commits any of the following misdemeanours:
   (a) Has been convicted of an offence:
      i) Under the Prevention of Corruption Act, 1988; or
      ii) The Indian Penal Code or any other law is in force for causing any loss of life or property or causing a threat to public health as part of the execution of a public procurement contract.
   (b) It is determined by the Government of India to have doubtful loyalty to the country

or national security considerations.

(c) Employs a government servant who has been dismissed or removed on account of corruption or employs a non-official convicted for an offence involving corruption or abetment of such an offence in a position where he could corrupt government servants or employs a government officer within one year (or any other period prescribed by the relevant authority) of his retirement, who has had business dealings with him in an official capacity before retirement.

## 13.3. Penalties for Misdemeanours

Without prejudice to and in addition to the rights of the Procuring Entity to other remedies as per the Tender-documents or the contract, If the Procuring Entity concludes that a (prospective) Consultant directly or through an agent has committed a misdemeanour in competing for the tender or in executing a contract, the Procuring Entity shall be entitled, and it shall be lawful on his part to take appropriate measures, including the following:

13.3.1 if his Proposals are under consideration in any procurement

1) Enforcement of Bid Securing Declaration in lieu of forfeiture or encashment of Bid Security.
2) calling off any pre-contract negotiations and;
3) rejection and exclusion of Consultants from the Procurement Process

13.3.2 if a contract has already been awarded

1) Termination of Contract for Default and availing all remedies prescribed thereunder;
2) Encashment and/ or Forfeiture of any contractual security or bond relating to the procurement;
3) Recovery of payments, including advance payments, if any, made by the Procuring Entity along with interest thereon at the prevailing rate (MIBID - Mumbai Interbank Proposal Rate);

13.3.3 Remedies in addition to the above:

In addition to the above penalties, the Procuring Entity shall be entitled, and it shall be lawful on his part, to:

1) File information against Consultant or any of its successors with the Competition Commission of India for further processing in case of anti-competitive practices;
2) Initiate proceedings in a court of law against Consultant or any of its successors under the Prevention of Corruption Act, 1988 or the Indian Penal Code or any other law for transgression not addressable by other remedies listed in this sub-clause.
3) Remove the Consultant or any of its successors from the list of registered suppliers for a period not exceeding two years. Suppliers removed from the list of registered vendors or their related entities may be allowed to apply afresh for registration after the expiry of the removal period.
4) Initiate suitable disciplinary or criminal proceedings against any individual or staff found responsible.
5) Debar, a Consultant, from participation in future procurements without prejudice to Procuring Entity's legal rights and remedies. Debarment shall automatically extend to all the

allied firms of the debarred firm. In the case of a Joint Venture/ consortium,all its members shall also stand similarly debarred:

a) A Ministry/ Department (or any of its CPSUs, attached offices, autonomous bodies) may debar a Consultant or any of its successors from participating in any Procurement Process undertaken by all its procuring entities for a period not exceeding two years commencing from the date of debarment for misdemeanours listed in GCC sub- clause 13.3 -1) above. The Ministry/Department shall maintain such alist which shall also be displayed on their website.

b) Central Government (Department of Expenditure (DoE), Ministry of Finance) may debar a Consultant or any of its successors from participating in any Procurement Process undertaken by all its procuring entities for a period not exceeding three years commencing from the date of debarment for misdemeanours listed in GCC sub-clause 13.3 -above. DoE shall maintain such a list which shall be displayed on Central Public Procurement Portal (CPPP).

# Section V: Special Conditions of Contract (SCC)

**Document No. RFP No./** NH-534(old NH- 119)-UK -2025-26-756 (AE)**;**
**Tender Title: Consultancy Services for Authority Engineer for supervision of Widening to 2LPS From Km 156.900 to Km 175.00 Dugadda to Gumkhal of NH-534 Old NH-119 on EPC Mode in the state of Uttarakhand Under Annual Plan 2025-26.**
**(Ref ITC-clause 1.4)**

*{Note for Procuring Entity: Text in grey italics font within square bracket [e.g., Mention…] are just suggestions/ directions and must be replaced by applicable text - remove brackets and convert the font to regular and black. Delete the rows not required. Clauses other than those mentioned below may also be mentioned if these need to be changed}*

Note for Consultants: Following Special Conditions of Contract (SCC) shall apply for this procurement. These Special Conditions shall modify/ substitute/ supplement the corresponding (GCC) clauses as indicated below. Whenever there is any conflict between the provision in the GCC and that in the SCC, the provision in the SCC shall prevail

| GCC Clause No. | Topic | To be read as |
|---|---|---|
| GCC 1, 2, 3 and 4: General, The Contract, Governing Laws and Jurisdiction, Communications | | |
| 1.1,1.2,1.3, 1.4 | General | No change |
| 2.1 | Language of Contract | English |
| 3.1 | Governing Laws and jurisdiction | The courts in Delhi shall have Jurisdiction |
| 4.1, 4.3 | Communications and notices | 4.1 Notice will be deemed to be effective as follows:<br>(a) in the case of personal delivery or registered mail, on delivery;<br>(b) in the case of telexes, 24 hours following confirmed transmission;<br>(c) in the case of telegrams, 24 hours following confirmed transmission; and<br>(d) in the case of facsimiles, 24 hours following confirmed transmission.<br><br>4.3 The addresses are:<br><br>Client: - Address of Employer<br>Regional Office, First Floor, Institute of Engineers (India) Building, Near ISBT Saharanpur Road, Dehradun 248002, Uttarakhand<br><br>Consultant: - Address of consultant |

| | | |
|---|---|---|
| | | Attention:- |
| | | Cable Address: -<br>…..... Telex: -<br>…..... Facsimile:-<br>……<br>( Note:- Fill in the Blanks) |
| 4.2 | Persons Signing Communications | The Authorised Representative are: For the Client:<br>…… For the Consultants: …….. |
| GCC 5 and 6: Consultant's and Procuring Entity's Obligations | | |
| 5.7. | Confidentiality and Secrecy of information | No change |
| 5.7.1 | Property Rights | No change |
| 5.8 | Performance Bond/ Security | The performance security shall be quoted by the bidder subjected to minimum of 5% of contract Price |
| 6.1, 6.2, 6.3 | Facilities, Utilities to be provided by Procuring Entity | Nil |
| GCC 7: Scope of Services and Performance Standards | | |
| 7.1 | Scope of Services | As defined in TOR |
| 7.1 5(c ) | Lapse/ deficiencies in services | As per Annexure-I of SCC |
| 7.2 | Eligible Services | As per the Extant Guidelines of Govt of India from time to time |
| GCC 8: Deployment of Resources | | |

| | | |
|---|---|---|
| 8.2.2 | Key Personnel | No Replacement of Team Leader shall be allowed. In case of extension of bid validity, the consultants shall submit the replacement CV along with Extension request<br>.If proposal along with extension request not submitted, the no replacement under this clause shall be allowed without reduction in renumeration.<br>ln addition, casual [eave for 12 days shall be permitted in a year to each Key Personnel/ Sub-Professional with prior intimation to the Authority. Out of this, a maximum of 3 CLs can be availed either separately or together in a quarter and the period of the CLs would be counted as Key<br>Personnel I Sub Professional being on duty. |
| GCC 9: Delivery of Services and Delays | | |
| 9.1 | Works plan | No Change |
| 9.2 | Commencement of Services | The time period shall be one or such other time period as the Parties may agree in writing. |
| GCC 10: Prices and Payments | | |
| 10.1.3 | Variations | No change |
| 10.2 | Taxes and Duties | No change |
| 10.3 | Terms and Mode of Payment | Payment shall be released as per rates quoted in Appendix C1 Breakup of Local currency costs. However, proof of remuneration paid to professional staffs in previous month submitted alongwith shall be current month's bill. The quoted remuneration to professional staff shall be paid by the Authority's Engineer directly into their respective ban account. The overhead charges shall be paid at the rate as mentioned in Appendix C-1 "Financial |
| | | proposal submission form |
| 10.5.2 | Payment to Consultants | An advance payment of 10% of the contract price in proportion to the quoted Indian currency (INR) in the bid shall be made within 60 days after receipt and verification of advance payment bank guarantee. The advance payment along with interest will be set off by the Client in equal instalments against the statements for the first<br>12 months of the Service until the advance<br>payment has been fully set off. The advance payment shall be in Indian Rupee. |
| GCC 11 Resolution of Disputes | | |
| 11.2 | Excepted Matters | No change |
| 11.5 | Arbitration | |
| GCC 12 Defaults, Breaches, Termination and Closure of Contract | | |

| | | |
|---|---|---|
| 12.3.1 | Period of Contract | The time period shall be 156 months (36 construction period of the project and 120 months for Maintenance period as per EPC Contract). In case construction period of EPC project is extended by more than 1 year, no escalation shall be paid to the Authority Engineer. Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which Such Party was unable to perform such action as a result of Force Majeure.<br><br>Extension of Time for providing Services of the Authority's Engineer may be extended concurrently with the Extension of Time granted, if any, to the EPC Contractor for the project, subject to satisfactory performance of the Authority's Engineer and limited to original period of consultancy services. |
| 12.1.4-7) | Risk and Cost Procurement | *No change* |

**Annexure-I**

Type of lapses/ deficiencies in services and action to be taken against consultant/firm and key personnel engaged during construction & Maintenance

| S.No. | Type of deficiencies | Action to be taken against consultant engaged during construction & Maintenance | |
|---|---|---|---|
| | | **Key Personnel** | **Firm** |
| 1 (a) | Failure to detect design/quality | For first three, key personnel may be kept on " watch list". Thereafter the concerned key Personnel & Team Leader to be removed from the project and debarred up to 6 months | i) For first three instances, to be kept on watch list.<br>ii. Thereafter, a monetary penalty of 1% of the consultancy fee (the aggregate of such penalties in a contract would not exceed the performance Guarantee amount and/or declaring the consultant as Non-Performer upto 6 months or till rectification of deficiencies and taking adequate measures not to repeat such instances in future<br>whichever is earlier |
| | deficiency in Non-key) Components* | | |
| 1 (b) | Failure to issue follow-up notices _to contractor/concessionaire for delays in closure off/ NCRs, delays in furnishing detail of time & cost claims/COS/<br>revised work programmes/work methodologies, etc. | | |
| 1(c) | Delay in submission of proper MPRs, improper review of methodologies, temporary works, QA plan/manual, O& M plan/ Manual etc | | |
| 2 (a) | Failure to detect design/quality deficiency in Key Component **not having substantial cost (below 1% of civil work (cost) and /or time implication<br>(below 5% or project completion periods | The concerned key personnel & Team leader to be removed from the project and debarred up to 1 year | Declaring the Consultant as Non-Performer up to 1 year or till rectification of Deficiencies and taking adequate<br>measures not to repeat such Instances in future, whichever is earlier. |
| (b) | Failure to detect deficiency in quantity executed vis- â-is design not( having substantial financial implication (below<br>1% of civil work cost) | | |
| (c) | Failure to conduct/witness tests as prescribed in the consultancy contract<br>agreement | | |

| | | | |
|---|---|---|---|
| (d) | Delay in processing EOT/COS proposals, inaccurate assessment of COS proposals, not issuing NCRs, delays/improper review of designs/drawings/work programme or failure to submit<br><br>Completion/Provisional Completion Certification as prescribed in contract | | |
| 3( a) | Failure to detect deficiency in quantity executed vis- à-vis design having substantial financial implication {1% of<br><br>civil work cost or more) | The concerned key personnel & team leader to be removed from the project and debarred up to 2 years | In addition to Rectification of deficiencies and taking adequate measures not to repeat such Instances in future, the consultant to be debarred up to 2 years. |
| (b) | Failure to detect design/quality deficiency in Key Component having substantial cost (1% of civil work cost<br><br>or more) and/or time implication (5% of project completion period or more) | | |
| (c ) | Failure to detect deficiency/not reviewing design (including temporary | | |
| | works) and construction (including methodology) of structural components of flyover/bridges/ underpasses/<br><br>overpasses/ROB/RUB etc. | | |
| (d) | Failure to propose action (like cure period notice, levy of damages, etc.) on contractor/concessionaire as per contract agreement for their default/poor progress having material adverse effect on the project implementation in terms of cost (1% of civil work cost or more) and/ time (5%<br><br>of project completion period or more). | | |
| (e) | Improper/wrong interpretation of provision in contract agreement; or wrong certification of payment/COS value/cost & time claims; or poor performance of services leading to cost (1% of civil work cost) and/o‹ time (5% of project completion period) claims against MoRTH or its executing<br><br>agencies awarded by DRB/CCIE/Arbitration/Court. | | |

Note ‘” Key Components are specified as under:

i) Foundation, sub-structure and super-structure of flyovers, road over bridges, road under bridges, vehicular under passes, vehicular over passes, major bridges, minor bridges, etc.
ii) Tunnels
iii) Expansion joints and bear1ngs
iv) RE walls/ retaining walls

v) The crust layers of flexible pavement

vi) The crust layers of rigid pavement

vii) Embankment and slope protection

viii) Issues affecting road safety

ix) Any other work endangering/impacting/stability/ reliability/durability/ performance of pavement/structures

"The items not covered in above list shall be in the category of Non-key Components.

# Excluding the delay solely attributable to the contractor beyond stipulated time.

# Section VI: Terms of Reference

RFP Document No. RFP No./ NH-534(old NH- 119)-UK -2025-26-756 (AE);
Tender Title: Consultancy Services for Authority Engineer for supervision of Widening to 2LPS From Km 156.900 to Km 175.00 Dugadda to Gumkhal of NH-534 Old NH-119 on EPC Mode in the state of Uttarakhand Under Annual Plan 2025-26.
Ref ITC-clause 1.4)

Note for Consultants: Regarding this Section, Consultants must fill following forms:

a. Form T-3: Comments and Suggestions on Terms of Reference, Counterpart Inputs to be Provided by the Procuring Entity

b. Form T-4: Description of Approach, Methodology and Work Plan in Responding to the Terms of Reference

c. Form T-5: Work Schedule and Planning for Deliverables

## Term of Reference

*Note: The term "Agreement" and clauses thereof refer to the EPC Agreement dated-----*

**- entered between Authority and--------- (the Contractor) for the work of from** *Km 232.00 to km 274.470 of NH No. 119 (New 534) in the State of Uttarakhand on Engineering, Procurement and* **Construction (EPC) basis].**

### *1. Scope*

1.1 These Terms of Reference (the "TOR") for the Authority's Engineer are being specified pursuant to the EPC Agreement dated (the "Agreement"), which has been entered into between the Authority and (the "Contractor") for [Two- Laning] of the Dugadda to Gumkhal (km 156.900 to km 175.00) of National Highway No. 119 (New 534) in the State of Uttarakhand on Engineering, Procurement, Construction (EPC) basis, and a copy of which is annexed hereto and marked as Annex-A to form part of this TOR.

1.2 The TOR shall apply to Development, construction and maintenance period of the Project Highway.

### *2 Definitions and interpretation*

2.1 The words and expressions beginning with or in capital letters and not defined herein but defined in the Agreement shall have, unless repugnant to the context, the meaning respectively assigned to them in the Agreement.

2.2 References to Articles, Clauses and Schedules in this TOR shall, except where the context otherwise requires, be deemed to be reference to the Articles, Clauses and Schedules of the Agreement, and references to Paragraphs shall be deemed to be references to Paragraphs of this TOR.

2.3 The rules of interpretation stated in Clauses 1.2, 1.3 and 1.4 of the Agreement shall apply, *mutatis mutandis*, to this TOR.

### *3 General*

3.1 The Authority's Engineer shall discharge its duties in a fair, impartial and efficient manner, consistent with the highest standards of professional integrity and Good Industry Practice.

3.2 The Authority's Engineer shall perform the duties and

exercise the authority in accordance with the provisions of this Agreement, but subject to obtaining prior written approval of the Authority before determining.

(a) any Time Extension.

(b) Any additional cost to be paid by the Authority to the Contractor;

(c) The Termination Payment; or

(d) Any other matter which is not specified in (a), (b) or (c) above and which creates an obligation or liability on either Party for a sum exceeding Rs. 5,000,000 (Rs. Fifty lakh.)

3.3 The Authority's Engineer shall submit regular periodic reports, once every month, to the Authority in respect of its duties and functions under this Agreement. Such reports shall be submitted by the Authority's Engineer within 10 (ten) days of the beginning of every month.

3.4 The Authority's Engineer shall inform the Contractor of any delegation of its duties and responsibilities to its suitably qualified and experienced personnel; provided, however, that it shall not delegate the authority to refer any matter for the Authority's prior approval in accordance with the provisions of Clause 18.2 EPC Agreement.

3.5 The Authority's Engineer shall aid and advise the Authority on any proposal for Change of Scope under Article 13.

3.6 In the event of any disagreement between the Parties regarding the meaning, scope and nature of Good Industry Practice, as set forth in any provision of the Agreement, the Authority's Engineer shall specify such meaning, scope and nature by issuing a reasoned written statement relying on good industry practice and authentic literature.

**3.7 Development/ Design Period**

3.7.1 Authority will engage Authority Engineer at least 3 months before appointed date of the project. During design and development period of project or immediately after mobilization at site, the Authority Engineer shall review the Schedule-A, Schedule-B, Schedule-C, Schedule-D and Schedule-H of the contract agreement and DPR prepared by the Authority as per site conditions and project Requirements and submit a comprehensive review report, indicating suggested modification in Scope of project.

3.7.2 Authority Engineer will witness traffic census, Geotechnical Investigation and all other investigations being carried out by the contractor and certify the correctness of the data and

maintain the details in MPR.

## 4. *Role and responsibility of Officers of the Authority*

The officer in-charge of the Authority (e.g. PD/ RO/ CGM/ Member in the case of NHAI; RO/CE/ADG in the case of MoRTH projects executed through the State PWDs; and PD/ED/Director in the case of NHIDCL) is responsible for the overall supervision and monitoring of the execution of project as the representative of the owner of the project. The Authority's Engineer is appointed to assist the Authority for carrying out the functions as detailed under clause 18.2 of the EPC Agreement. As such, an officer of the Authority is vested with all such powers and responsibilities as are enjoined upon the Authority's Engineer and is fully competent to issue any instructions for proper monitoring and supervising project, either by himself or through the Authority's Engineer. Instructions issued by the concerned officer of the
Authority shall have the same effect as that of the Authority's Engineer in terms of this Agreement. Wherever such concerned officer issues any instructions or notice to the Contractor, he shall endorse a copy thereof to the Authority's Engineer.

## 5 *Construction Period*

5.1 During the Construction Period, the Authority's Engineer shall review and approve the Drawings furnished by the Contractor along with supporting data, including the geo- technical and hydrological investigations, characteristics of materials from borrow areas and quarry sites, topographical surveys, and the recommendations of the Safety Consultant in accordance with the provisions of Clause 10.1.6 of EPC Agreement. The Authority's Engineer shall complete such review and approve and send its observations to the Authority and the Contractor within 15 (fifteen) days of receipt of such Drawings; provided, however that in case of a Major Bridge or Structure, the aforesaid period of 15 (fifteen) days may be extended upto 30 (thirty) days. In particular, such comments shall specify the conformity or otherwise of such Drawings with the Scope of the Project and Specifications and Standards.

5.2 The Authority's Engineer shall review and approve any revised Drawings sent to it by the Contractor and furnish its comments within
10 (ten) days of receiving such Drawings. The review/approval of drawing should be authenticated by Authority's Engineer.

5.3 **Verification of Material and its Sources by Authority Engineer:-**

5.3.1 The Authority Engineer shall ensure that all materials used by the contractor are procured exclusively from sources approved by the Engineer in accordance with the contract specifications and standards.

5.3.2 The Authority Engineer shall verify and document the source of materials proposed by the contractor during the approval process and maintain a record of all approved material sources, including relevant test reports, certifications, and compliance documents. The Authority Engineer shall communicate any changes or updates regarding material source approvals to the contractor in writing.

5.3.3 The Authority Engineer shall conduct periodic inspections to verify that the materials delivered to the site match the approved source. Authority Engineer shall ensure that the contractor provides evidence of procurement from the approved source (e.g., invoices, transport receipts, or certifications).

5.3.4 In the event of non-compliance, the Authority Engineer shall immediately notify the contractor in writing and Direct the removal of non-compliant materials from the site at the contractor's cost. He shall ensure that corrective actions are taken before work proceeds further.

5.3.5 In the Monthly Report the Authority Engineer shall submit Compliance status of materials used, any issues or deviations identified, along with corrective measures taken alongwith supporting documentation such as test reports, certificates, and inspection records.

5.3.6 The Authority Engineer shall be held accountable for any lapses in ensuring material compliance that result in deviations from approved standards or specifications and the suitable action under the agreement shall be taken against the Authority Engineer.

5.4 **Quality Assurance Manual and Plan** forms the basis of quality of the work. It is therefore to be ensured that the Quality Assurance Plan prepared by the contractor be checked and submitted by Authority Engineer to Authority within 15 days time period of its submission by contractor. The Authority

shall approve the QAP within 15 days from date of submission by AE, Thus, the Authority's Engineer shall ensure that contents of Quality Assurance Plan is as per requirements of IRC SP 112 and ISO : 9001. The copy of the approved Quality Assurance Plan will be sent by Authority's Engineer to the contractor and the Authority. The Authority's Engineer will after review and submit to the Authority the methodology within 10 days of its receipt from the contractor for approval of Authority. The Authority shall approve the methodology within 10 days of receiving from Authority Engineer. The Authority Engineer will ensure that the methodology of the different components of the work are prepared keeping in view the specifications & Standards and machinery deployed by the contractor. The Authority Engineer may also offer their comments for modifying/ improving either of the document. After receiving the corrected document, the Authority Engineer shall review and formally submit these documents to Authority for approval of the same

5.5 The Authority's Engineer shall grant written approval to the Contractor, where necessary, for interruption and diversion of the flow of traffic in the existing lane(s) of the Project Highway for purposes of maintenance during the Construction Period in accordance with the provisions of Clause 10.4 EPC Agreement.

5.6 The Authority Engineer shall approve the CV of Project Manager/ Dy. Project Manager/ other key personnel deployed by the contractor at site. If Authority Engineer, observed that qualified Key personnel have not been deployed by contractor at site, he will submit a report in this regard to the

Authority.

5.7 The Authority's Engineer shall review the monthly progress report furnished by the Contractor and send its comments thereon to the Authority and the contractor within 7 (seven) days of receipt of such report.

5.8 On a daily basis, the concerned key personnel of Authority Engineer shall inspect the Construction Works. Following activities need to be undertaken during the visits.

- Review of construction including progress, quality and safety of construction
- Inspection of defects and deficiencies in construction works
- Witnessing quality inspection tests at labs established by Concessionaire on a sample

basis

Review of quality of work shall be done in reference to Quality Assurance Plan(QAP)/Manual and ISO 9001:2008, IRC: SP: 47-1998 and IRC: SP: 57-2000 for road bridges and roads respectively. The Authority's Engineer also needs to capture following documents and send to <Agency> field office via email on a daily basis

- *Scanned copy of filled RFI (Request for Inspection) form including commentary on 'Satisfactory/Unsatisfactory' nature of work completed by Concessionaire*
- *Daily inspection report Proforma as provided in Annexure I*
- *Readings of quality inspection tests witnessed by the Consultant*
- *Minimum 6 high resolution photographs supporting the remarks made by the Authority's Engineer in RFI form*

Team Leader will be responsible for sending daily emails to <Agency> office

5.9 On a monthly basis, the Authority Engineer shall prepare a **Monthly Inspection Report** in accordance with the format prescribed in **Annexure V** setting forth an overview of the status, progress, quality and safety of construction, including the work methodology adopted, the materials used and their sources, and conformity of Construction Works with the Scope of the Project and the Specifications and Standards. In a separate section of the Inspection Report, the Authority Engineer shall describe in reasonable detail the lapses, defects or deficiencies observed by it in the construction of the Project Highway. The Authority Engineer shall send a copy of its Inspection Report to the Authority and the Concessionaire latest by 7th of every month. Key sections of the Monthly Progress Report are as follows

| S No. | Section | Sub-Sections |
|---|---|---|
| 1 | **Executive Summary** | 1.1 Construction progress in current month |
| | | 1.2 Summary of strip plan |
| | | 1.3 Detailed strip plan |
| | | 1.4 Current issues and recommended actions by AE |
| 2 | **Project Overview** | 2.1 Salient Features of the Project |
| | | 2.2 Project Milestones |
| | | 2.3 Location Map |
| | | 2.4 Key Plan |
| 3 | **Critical issues and Action log** | 3.1 Pending issues and action log |
| | | 3.2 Obligations as per contract |

| | | |
|---|---|---|
| 4 | **Physical Progress** | 4.1 Detailed physical progress by component |
| 5 | **Land Acquisition and Clearances** | 5.1 LA summary |
| | | 5.2 LA detail by CALA |
| | | 5.3 LA detail by village |
| | | 5.4 Manpower with each CALA |
| | | 5.5 Clearances summary |
| | | 5.6 Status of utility shifting |
| 6 | **Change of Scope** | 6.1 Status of pending COS proposals |
| 7 | **Mobilization of Resources** | 7.1 Resource mobilization by contractor/ concessionaire |
| 8 | **Financial Progress Details** | 8.1 Pen picture- Escrow |
| | | 8.2 Escrow details |
| 9 | **Summary of quality control tests** | 9.1 Tests witnessed by IE/AE |
| | | 9.2 Tests conducted by IE/AE |
| 10 | **Monitoring of maintenance obligations during construction phase** | 10.1 Critical issues and action log |
| | | 10.2 Cumulative defects and deficiencies |
| | | 10.3 Status of damages |
| | | 11.1 Pen picture on safety features at construction site |
| 11 | **Safety features** | 11.2 Accident report |
| 12 | **Annexures** | Annex 1: Detailed list of physical components as per Schedule G |
| | | Annex 2 onwards: Additional details provided by AE |

5.9.1 If at any time during the Construction Period, the Authority Engineer determines that the Concessionaire has not made adequate arrangements for the safety of workers and Users in the zone of construction or that any work is being carried out in a manner that threatens the safety of the workers and the Users, it shall make a recommendation to the Authority forthwith, identifying the whole or part of the Construction Works that should be suspended for ensuring safety in respect thereof

5.9.2 The Authority Engineer shall prepare a **Milestone Report** setting forth an overview of the status, progress, quality and safety of construction, including the status of the milestone, the available resources and details of lack of resources, to achieve the milestone, if any. In a separate section of the Milestone Report, the Authority Engineer shall describe in reasonable detail the lapses, defects or deficiencies observed by it in the

achievement of the Project Highway. The Authority Engineer shall send a copy of its Milestone Report to the Authority within 15 days of schedule Milestone Date. The Millstone report shall be approved by the Authority before making milestone payment.

5.10 The Authority's Engineer shall conduct the pre-construction review of manufacturer's reports and standard samples of manufactured Materials, and such other Materials as the Authority's Engineer may require.

5.11 For determining that the Works conform to Specifications and Standards, the Authority's Engineer shall require the Contractor to carry out, or cause to be carried out, tests at such time and frequency and in such manner as specified in the Agreement and in accordance with Good Industry Practice for quality assurance. For purposes of this, the tests specified in the IRC Special Publication-11 (Handbook of Quality Control for Construction of Roads and Runways) and the Specifications for Road and Bridge Works issued by MORT&H (the "Quality Control Manuals") or any modifications/substitution thereof shall be deemed to be tests conforming to Good Industry Practice for quality assurance.

5.12 The Authority's Engineer shall witness all the quality control tests and calibrations of plants and equipment carried out by the contractor at its site laboratory/ main laboratory/field/plants. Those include test for all material, mixes, products etc. Authority Engineer shall also witness all test of proprietary products like bearing in the manufacturer's laboratory as mandated in respective standards. Authority Engineer will also conduct review of quality control documents in respect of factory manufactured materials/ proprietary products etc as per IRC:SP: 112.

5.13 The timing and location of tests referred to in Paragraph 5.10, and the criteria for acceptance/rejection of their results shall be determined by the Authority's Engineer in accordance with MoRTH specifications for road & Bridge works and respective Indian Road Congress Standards/Guidelines/Manuals together with any other Indian/ International Standards, the methodology proposed by him at the time of bid submission referred thereto. Authority Engineer/Independent Auditors/ officers of Authority may also undertake minimum 1% random tests as directed by the Authority, on random sample basis at the locations to be decided by the Authority/Independent Auditors/ officers of Authority. These random tests shall be in addition to, and independent of, the tests that may be carried out by the Contractor for its own quality assurance in accordance with Good Industry Practice. These random tests shall be tested by the Authority Engineer in contractor's laboratory or any third party NABL accredited laboratory as directed by the Authority. The payments of these

test shall be made by the Authority separately if the result of these tests are as per specifications/ guidelines. If random sample/ test result is not as per the standards/ specifications, the cost of such testing shall be paid by the Contractor

5.14 The Authority Engineer shall witness collection of the all test samples including random samples collected by AE/Independent Auditors/ Authority officers from site and geotagged location of the collected sample shall be mentioned on the sample/ records. The details of the sample collected, and its geotag location data shall be uploaded on datalake or any other app developed by Authority for this purpose.

5.15 In the event that results of any tests conducted under Clause 11.10 establish any Defects or deficiencies in the Works, the Authority's Engineer shall require the Contractor to carry out remedial measures.

5.16 The Authority's Engineer may instruct the Contractor to execute any work which is urgently required for the safety of the Project Highway, whether because of an accident, unforeseeable event or otherwise; provided that in case of any work required on account of a Force Majeure Event, the provisions of Clause 21.6 of EPC Agreement shall apply.

5.17 In the event that the Contractor fails to achieve any of the Project Milestones, the Authority's Engineer shall undertake a review of the progress of construction and identify potential delays, if any. If the Authority's Engineer shall determine that completion of the Project Highway is not feasible within the time specified in the Agreement, it shall require the Contractor to indicte within 15 (fifteen) days the steps proposed to be take to expedite progress, and the period within which the Project Completion Date shall be achieved. Upon receipt of a report from the Contractor, the Authority's Engineer shall review the same and send its comments to the Authority and the Contractor forthwith.

5.18 The Authority's Engineer shall obtain from the Contractor a copy of all the Contractor's quality control records and documents before the Completion Certificate is issued pursuant to Clause 12.2 of EPC Agreement.

5.19 Authority's Engineer may recommend to the Authority suspension of the whole or part of the Works if the work threatens the safety of the Users and pedestrians. After the Contractor has carried out remedial measure, the Authority's Engineer shall inspect such remedial measures forthwith and make a report to the Authority recommending whether or not

the suspension hereunder may be revoked.

5.20 In the event that the Contractor carries out any remedial measures to secure the safety of suspended works and users, and requires the Authority's Engineer to inspect such works, the Authority's Engineer shall inspect the suspended works within 3 (three) days of receiving such notice, and make a report to the Authority forthwith, recommending whether or not such suspension may be revoked by the Authority.

5.21 The Authority's Engineer shall carry out, or cause to be carried out, all the Tests specified in Schedule-K and issue a Completion Certificate or Provisional Certificate as the case may be. For carrying out is functions under this Paragraph 4.18 and all matters incidental thereto, the Authority's Engineer shall act under and in accordance with the provisions of Article 12 and Schedule-K. The Authority's Engineer shall use following equipment in carrying out the tests.

| S No | Key metrics of Asset | Equipment to be used |
|---|---|---|
| 1 | Surface defects of pavement | Network Survey Vehicle (NSV) |
| 2 | Roughness of pavement | Laser Profilometer |
| 3 | Strength of pavement | Falling Weight Reflectometer (FWD) |
| 4 | Bridges | Mobile Bridge Inspection Unit (MBIU) |
| 5 | Road signs and road markings | Retro-reflectometer |

## *6 Maintenance Period*

6.1 The Authority's Engineer shall aid and advise the Contractor in the preparation of its monthly Maintenance Programme and for this purpose carry out a joint monthly inspection with Contractor.

6.2 The Authority's Engineer shall undertake regular inspections, at least once every month to evaluate compliance with the Maintenance Requirements and submit a Maintenance Inspection Report to the Authority and the Contractor.

### 6.3 Visual Inspection of project highway

6.3.1 The Authority Engineer shall carry out visual inspection of

entire highway stretch as per the frequency defined in the following table

| Nature of defect or deficiency | | Frequency of inspection |
|---|---|---|
| **ROADS** | | |
| **(a)** | **Carriageway and paved shoulders** | |
| (i) | Breach or blockade | Daily |
| (ii) | Pot holes | Daily |
| (iii) | Cracking | Weekly |
| (iv) | Rutting | Weekly |
| (v) | Bleeding/skidding | Weekly |
| (vi) | Ravelling/Stripping of bitumen surface | Weekly |
| (vii) | Damage to pavement edges | Weekly |
| (viii) | Removal of debris | Daily |
| **(b)** | **Hard/earth shoulders, side slopes, drains and culverts** | |
| i) | Variation by more than 2% in the prescribed slope of camber/cross fall | Weekly |
| (ii) | Edge drop at shoulders | Weekly |
| (iii) | Variation by more than 15% in the prescribed side (embankment) slopes | Weekly |
| (iv) | Rain cuts/gullies in slope | Weekly |
| (v) | Damage to or silting of culverts and side drains during and immediately<br>preceding the rainy season | Weekly |
| (vi) | Desilting of drains in urban/semi-urban areas | Daily |
| **(c)** | **Road side furniture including road signs and pavement marking** | |
| (i) | Damage to shape or position;<br>poor visibility or loss of retro-reflectivity | Daily |
| **(d)** | **Street lighting and telecom (ATMS)** | |
| (i) | Any major failure of the system | Daily |
| (ii) | Faults and minor failures | Daily |
| (iii) | Streetlight with Lux Meter | Weekly |
| **(e)** | **Trees and plantation** | |

| | | |
|---|---|---|
| (i) | Obstruction in a minimum head-room of 5 m above carriageway or obstruction in visibility of road signs | Daily |
| (ii) | Deterioration in health of trees and bushes | Weekly |
| (iii) | Replacement of trees and bushes | Weekly |
| (iv) | Removal of vegetation affecting sight line and road structures | Weekly |
| **(f)** | **Rest areas/Wayside amenities** | |
| (i) | Cleaning of toilets | Daily |
| (ii) | Defects in electrical, water and sanitary installations | Daily |
| **(g)** | **Toll plaza[s]** | |
| (i) | Failure of toll collection equipment including ETC or lighting | Daily |
| (ii) | Damage to toll plaza | Weekly |
| **(h)** | **Other Project Facilities and Approach roads** | |
| (i) | Damage or deterioration in Approach Roads, -[pedestrian facilities, truck lay-bys, bus-bays, bus- shelters, cattle crossings, Traffic Aid Posts, Medical Aid Posts and other works] | Daily |
| **(j)** | **Incident Management** | |

| **Nature of defect or deficiency** | | **Frequency of inspection** |
|---|---|---|
| (i) | Instances of Incident Management as reported including time of call, response time, services rendered and time of clearing of the Highway. | Daily |
| (ii) | List of the Incident Management Services rendered. | Weekly |
| **BRIDGES** | | |
| **(a)** | **Superstructure of bridges** | |
| (i) | Cracks | Weekly |
| (ii) | Spalling/scaling | Weekly |
| **(b)** | **Foundations of bridges** | |
| (i) | Scouring and/or cavitation | Weekly |
| **(c)** | **Piers, abutments, return walls and wing walls of bridges** | |
| (i) | Cracks and damages including settlement and tilting | Weekly |
| **(d)** | **Bearings (metallic) of bridges** | |

| | | |
|---|---|---|
| (i) | Deformation | Weekly |
| **(e)** | **Joints in bridges** | |
| (i) | Loosening and malfunctioning of joints | Weekly |
| **(f)** | **Other items relating to bridges** | |
| (i) | Deforming of pads in elastomeric bearings | Weekly |
| (ii) | Gathering of dirt in bearings and joints; or clogging of spouts, weep holes and vent-holes | Weekly |
| (iii) | Damage or deterioration in parapets and handrails | Weekly |
| (iv) | Rain-cuts or erosion of banks of the side slopes of approaches | Weekly |
| (v) | Damage to wearing coat | Weekly |
| (vi) | Damage or deterioration in approach slabs, pitching, apron, toes, floor or guide bunds | Weekly |
| (vii) | Growth of vegetation affecting the structure or obstructing the waterway | Weekly |

6.3.2 All elements which have daily inspection frequency shall be inspected weekly as well. Similarly, all elements which have weekly inspection frequency shall be inspected monthly as well.

6.3.3 Daily inspection report format and weekly inspection report format has been provided in Annexure II and III of this document respectively. Manpower which needs to conduct visual inspection and mode of reporting is defined in the following table

| Frequency of inspection | Inspection to be carried out by | Mode of reporting |
|---|---|---|
| Daily | Sub-professional staff | Soft copy by Email |
| Weekly | Key personnel | Soft copy by Email |
| Monthly | Key personnel | Hard copy and Soft copy |

6.3.4 High resolution photographs and video of the highway stretches having defects and/or deficiencies shall be submitted along with Weekly Inspection Report and Monthly Status Report. Summary of key observations around defects and deficiencies in highway stretch shall be reported in Monthly Progress Report and detailed inspection report shall be provided as Annexure to Monthly Progress Report.

6.3.5 The Authority's Engineer shall also be responsible for inspection and monitoring of Wayside Amenities. ETC (Electronic Toll Collection) and ATMS (Advanced Traffic Management System) and incident management.

## 6.4 Road conditions surveys

6.4.1 The carrying out of condition surveys will be one of the most important and crucial field tasks under the project. The Authority Engineer shall carry out condition surveys using equipment and following a frequency as defined under.

| S No | Key metrics of Asset | Equipment to be used | Frequency of condition survey |
|---|---|---|---|
| 1 | Surface defects of pavement | Network Survey Vehicle (NSV) | At least twice a year (As per survey months defined for the state basis rainy season) |
| 2 | Roughness of pavement | Laser Profilometer | At least twice a year (As per survey months defined for the state basis rainy season) |

| | | | |
|---|---|---|---|
| 3 | Strength of pavement | Falling Weight Reflectometer (FWD) | At least once a year |
| 4 | Bridges | Mobile Bridge Inspection Unit (MBIU) | At least twice a year (As per survey months defined for the state basis rainy season) |
| 5 | Road signs | Retro-reflectometer | At least twice a year (As per survey months defined for the state basis rainy season) |

The first equipment based inspection shall be conducted at the time of completion testing. The other inspections shall be conducted before and after the rainy seasons as per the schedule defined in Annexure IV, except for FWD testing which shall be conducted once a year.

Calibration of equipment, wherever needed, is required to be done in presence of Competent Authority. Once approval of equipment, the settings and a sample data set is provided by Competent Authority, network level data for entire project stretch can be collected. Month of survey for each state has been defined in Annexure IV of this document.

### *6.4.2 Measurement of pavement surface defects and roughness*

i. The Authority Engineer shall use Network Survey Vehicles mounted with equipment such as Laser based automatic crack detection , high resolution digital cameras for RoW and pavement, high accuracy DGPS receiver and in vehicle data processing software or better technology to accurately measure following pavement surface properties

| Surface defect | Dimensions to be reported |
|---|---|
| Cracking | • Length<br>• Width<br>• Depth |
| Potholes | • Area<br>• Depth |

| | |
|---|---|
| Raveling | • Indicator |
| | • %<br>• Area |
| Rutting | • Depth<br>• Width |
| Concrete Joint/ Faulting | • Length |
| Roughness | • IRI in both wheel paths |

ii. The following criteria shall be met by the process of defects detection

- Measurement of 3D road profile using such technologies as laser scanning or other proven technologies.
- Ability to operate (collect data) at different speeds with a minimum speed of 30km/hr and upto at least 75 km/ hr.
- Profile depth accuracy of 0.5mm
- Capability for lane tracking to control driver wander' and ensure high repeatability of data between surveys.
- Measure at least 3.5m width of highway lane.
- Transverse Profile including rut depth measurement of pavement surface widths of both carriageway and shoulders. The rut depth data must be convertible to different straightedge lengths (1.8m to 3.5m) and meet industry standards (ASTM E1703 / E1703M).
- Pavement images with capability to automatically identify and rate distresses
- Roughness measurement with outputs of both raw longitudinal profiles and International Roughness Index (IRI) calculation shall be reported at least 100m referenced to the preceding Location Reference Post (LRP). The roughness must meet ASTM-E950 (equivalent to Class I road profiler). The IRI shall be determined in both wheel paths.
- Ability to record images at user-defined intervals (e.g. every 5, 10m, etc.)
- Minimum images resolution of 1600x1200
- Outputs must include Standard JPEG image or similar industry standard
- Distance resolution of <1mm,
- Capable of achieving distance accuracy of 0.1% (i.e. within 1m over 1km distance)
- All data outputs should be in a non-proprietary format (e.g. .CSV, .MDB, Excel) and not require specialist software in order to view or format data
- Data should also be capable of being easily formatted into data compatible with HDM-4

iii. The following are the set of deliverables which should be submitted after completion of survey as part of Monthly Progress Report

- Raw data generated from the equipment which are part of Network Survey covering the parameters mentioned in above table. It should also include
    - Survey ID, Description, Date, Lane

    - GPS referenced data for GIS mapping
  - Video logging
    - Pavement imagery (AVI/JPEG)
    - 360 degree imagery (JPEG)
- Interpretation report covering summary of entire survey and analysis of defects and deficiencies

### *6.4.3 Measurement of pavement strength*

(i) The Authority Engineer shall carry out structural strength surveys for existing pavements using Falling Weight Deflectometer technique in accordance with the procedure given in IRC:115-2014 (Guidelines for Structural Evaluation and Strengthening of Flexible Road Pavements Using Falling Weight Deflectometer (FWD) Technique) and IRC: 117-2015 (Guidelines for the Structural Evaluation of Rigid Pavement by Falling Weight Deflectometer)

(ii) The interval at which deflection measurements are to be taken up are as per IRC:115- 2014 / IRC:117-2015. For flexible pavements, the sample size and the interval of the data to be collected depends on the length of the uniform section calculated and condition of the pavement section i.e. 'good', 'fair' and 'poor' for each lane, established on the pavement condition data based on the criterion given in IRC:115-2014. For rigid pavements, the deflection data may be collected at interiors, corners, transverse joints and longitudinal joints in the outer lanes at intervals as specified in IRC:117-2015.

(iii) The following are the set of deliverables which should be submitted after completion of inspection test as part of Monthly Progress Report

- Data report covering following parameters
  - Deflection Bowl (Transient Deflections at seven different points)
  - Corrected Elastic Modulus Bituminous E1
  - Corrected Elastic Modulus Granular E2
  - Corrected Elastic Modulus Subgrade E3
  - Subgrade CBR
- Interpretation report covering summary of entire survey results and analysis of key parameters

6.4.4 The Authority Engineer shall carry out the condition and structural assessment survey of the bridges in accordance with IRC-SP; 35 with the use of Mobile Bridge Inspection unit (MBIU) or better technology.

(i) The following criteria shall be met by the process of bridge condition assessment

- Automatic folding and unfolding of platform
- 90 degree rotation of platform
- Sufficient safety features to be incorporated such as dedicated power supply, emergency cut off system, etc
- Complete access to hidden parts of the bridge by the raters

(ii) Detailed bridge inspection report shall be submitted as per the Inspection Proforma provided in IRC-SP 35

### 6.4.5 Measurement of retro reflection of road signs

(i) The Authority Engineer shall measure Coefficient of retro reflected luminance $R_A$ (night time retro reflection) of road traffic signs using a portable retro reflectometer.

(ii) The following criteria shall be met by the process of road signs retro reflection measurement

- Measurement of retro reflective signs shall be conducted in accordance with ASTM E1709 and ASTM E2540
- Measurement time after pressing trigger shall be less than or equal to 1 sec
- Observation angle adjustment from 0.2 degrees to 2.0 degrees
- Entrance angle adjustment from -45 degrees to +45 degrees
- Self-contained commercially available battery
- Inbuilt data storage of at least 2,000 measurements so that data transfer requirement is minimized while the survey is being conducted
- Interface for transferring data from device to Computer
- Built in GPS to capture GPS coordinates of road sign
- Range shall be at least 0-2000 cd/lx/$m^2$

(iii) The following are the set of deliverables which should be submitted after completion of survey as part of Monthly Progress Report

- System generated coefficient of retro reflected luminance $R_A$ (nighttime retro reflection) of all road signs
- Interpretation report covering analysis of road signs falling in different range of RA and actions to be taken

6.5 The Authority Engineer shall carry out following inspections of ETC lanes at toll plazas on a month basis:

*(i) Infrastructure:*

- *Availability of civil infrastructure at toll plazas required for installation of ETC systems*
- *Adequacy of hardware, software and other related items as per IHMCL/<*Agency*> technical specifications and requirements*

*(ii) Operations:*

- *Adherence of various stakeholders (acquirer bank, system integrator, toll operator, issuer bank etc) of the ETC system to the service level agreements*
- *Efficacy of the ETC system (RFID tagging, AVC, WIM etc) in terms of accuracy*

*And uptime*

- *Tracking and reporting toll plaza experience metrics such as average waiting time, transaction times for different modes of payment (RFID, cash, smart cards, QR codes etc) and congestion levels (eg. length of queue in different lanes) across 4 different times in a day*

- *Robustness of dispute resolution mechanisms in place for the tag holder and toll operators by the issuer and acquirer banks*

6.6 The Authority Engineer shall prepare a Monthly Status Report in O&M phase of project in respect of its duties and functions under this Agreement and in accordance with the format prescribed in Annexure VI. 1st deliverable of the report which is an executive summary to the main report (Section 1) shall be submitted to the Authority and updated on the PMIS and project specific website by 4th of every month. Main report (Section 2 onwards) shall be submitted to the Authority and updated on the PMIS and project specific website by 7th of every month. Key sections of the Monthly Status Report are as follows;

| S.No | Sections | Sub sections |
|---|---|---|
| 1 | **Executive Summary** | 1.1 Overall road condition |
| | | 1.2 Key reporting metrics |
| | | 1.3 Key maintenance activities undertaken |
| | | 1.4 Pending issues |
| | | 1.5 Recommended actions by AE |
| | | 1.6 Strip plan for maintenance |
| 2 | **Project Overview** | 2.1 Key project details |
| | | 2.2 Location map |
| | | 2.3 Key plan |
| | | 2.4 Summary of project features |
| | | 2.5 RoW availability |
| 3 | **Critical issues and actiontaken** | 3.1 Issue and action log |
| | | 3.2 Summary of deficiencies |
| | | 3.3 Obligations as per contract |
| | | 3.4 Inspection schedule |
| 4 | **Monthly Inspection Report** | 4.1 Summary of NCR issued |
| | | 4.2 Equipment based inspection report |

| | | |
|---|---|---|
| **5** | **Monitoring of ETC Lanes** | 5.1 Monthly ETC Report |
| | | 5.2 On-ground infrastructure report |
| | | 5.3 On ground ETC operations & SLA adherence |
| **6** | **Status of damages** | 6.1 Damages for non completion of project facilities |
| | | 6.2 Damages for breach of maintenance activities |
| | | 6.3 Damages for non completion of major maintenance works |
| **7** | **Change of Scope proposals** | 7.1 Change of Scope proposals |
| **8** | **Status of pending disputes** | 8.1 Status of pending disputes |
| **9** | **Reports** | 9.1 Toll collection statement |
| | | 9.2 Accident Report |
| | | 9.3 Details of user complaints |
| | | 9.4 Encroachment list |
| | | 9.5 Lane closure report |
| **10** | **Annexures** | Annex I- Detailed visual inspection report of project highway |
| | | Annex II onwards- Additional details provided by AE |

6.7 The Authority's Engineer shall specify the tests, if any, that the Contractor shall carry out, or cause to be carried out, for the purpose of determining that the Project Highway is in conformity with the Maintenance Requirements. It shall monitor and review the results of such tests and remedial measures, if any, taken by the Contractor in this behalf.

6.8 In respect of any defect or deficiency referred to in Paragraph 3 of Schedule-E, the Authority's Engineer shall, in conformity with Good Industry Practice, specify the permissible limit of deviation or deterioration with reference to the Specifications and Standards and shall also specify the time limit for repair or rectification of any deviation or deterioration beyond the permissible limit.

6.9 The Authority's Engineer shall examine the request of the Contractor for closure of any lane (s) of the Project Highway for undertakings maintenance/repair thereof, and shall grant permission with such modifications, as it may deem necessary, within 5 (five) days of receiving a request from the Contractor. Upon expiry of the permitted period of

closure, the Authority's Engineer shall monitor the reopening of such lane (s), and in case of delay, determine the Damages payable by the Contractor to the Authority under Clause 14.5 of EPC Agreement

**7 Determination of costs and time**

7.1 The Authority's Engineer shall determine the costs, and/or their reasonableness, that are required to be determined by it under the Agreement.

7.2 The Authority's Engineer shall determine the period of Time Extension that is required to be determined by it under the Agreement.

7.3 The Authority's Engineer shall consult each Party in every case of determination in accordance with the provisions of Clause 18.5 of EPC Agreement.

**8 Payments**

8.1 The Authority's Engineer shall withhold payments for the affected works for which the Contractor fails to revise and resubmit the Drawings to the Authority's Engineer in accordance with the provision of Clause 10.2.4 (d) of EPC Agreement.

8.2 Authority's Engineer shall

(a) within 10 (ten) days of receipt of the Stage Payment Statement from the Contractor pursuant to Clause 19.4, determine the amount due to the Contractor and recommend the release of 90 (ninety) percent of the amount so determined as part payment, pending issue of the Interim Payment Certificate; and

(b) within 15 (fifteen) days of the receipt of the Stage Payment Statement referred to in Clause 19.4, deliver to the Authority and the Contractor an Interim Payment Certificate certifying the amount due and payable to the Contractor, after adjustments in accordance with the provisions of Clause 19.10 of EPC Agreement.

8.3 The Authority's Engineer shall, within 15 (fifteen) days of receipt of the First stage Maintenance Payment Statement from the Contractor pursuant to Clause 19.6 of EPC Agreement, verify the Contractor's statement and certify the amount to be paid to the Contractor in accordance with the provisions of the Agreement.

8.4 The Authority's Engineer shall certify final payment with 30 (thirty) days of the receipt of the final payment statement of Maintenance in accordance with the provisions of Clause 19.16 of EPC Agreement.

## 9. Other duties and functions

The Authority's Engineer shall perform all other duties and functions as specified in the Agreement.

***10 Miscellaneous***

10.1 All key personnel and sub professional staff of the Authority Engineer shall use the fingerprint based (biometric) attendance system for marking their daily attendance. Attendance shall be marked at least once a day and anytime during the day. 1 Biometric Attendance System shall be installed by the Authority Engineer at its own cost at the site office in order to facilitate the attendance marking. More systems can be installed near the project highway upto a maximum of 1 system per 50 km in order to encourage frequent visits of project highway by key personnel and sub professional staff. A copy of monthly attendance records shall be attached with Monthly Status Report. Proper justification shall be provided for cases of absence of key personnel/ sub professional staff which do not have prior approval from Project Director of concerned stretch

10.2 A copy of all communications, comments, instructions, Drawings or Documents sent by the Authority's Engineer to the Contractor pursuant to this TOR, and a copy of all the test results with comments of the Authority's Engineer thereon, shall be furnished by the Authority's Engineer to the Authority forthwith.

10.3 The Authority's Engineer shall retain at least one copy each of all Drawings and Documents received by it, including 'as – built' Drawings and keep them in its safe custody.

10.4 Within 90 (ninety) days of the Project Completion Date, the Authority's Engineer shall obtain a complete set of as built Drawings in 2 (two) hard copies and in micro film form or in such other medium as may be acceptable to the Authority, reflecting the Project Highway as actually designed, engineered and constructed, including an as-built survey illustrating the layout of the Project Highway and setback lines, if any, of the buildings and structures forming part of project Facilities; and shall hand them over to the Authority against receipt thereof.

10.5 The Authority's Engineer, if called upon by the Authority or the Contractor or both, shall mediate and assist the Parties in arriving at an amicable settlement of any Dispute between the Parties.

10.6 The Authority's Engineer shall inform the Authority and the Contractor of any event of Contractor's Default within one week of its occurrence.

## 11. *PERFORMANCE CLAUSE*

Authority's Engineers shall be expected to fully comply with all the provisions of the

`Terms of Reference', and shall be fully responsible for supervising the Designs, Construction and maintenance and operation of the facility takes place in accordance with the provisions of the EPC Agreement and other schedules. Any failure of the Authority Engineer in notifying to Employer and the Contractor on non-compliance of the provisions of the EPC Contract Agreement and other schedules by the EPC Contractor, non-adherence to the provision of ToR and non-adherence to the time schedule prescribed under ToR shall amount to non-performance.

The Authority Engineer shall appoint its authorized representative, who shall issue on behalf of the AE, Completion Certificate along with the Team Leader and shall carry out any such task as may be decided by Employer. The AE shall take prior approval of Employer before issuing Completion Certificate. The proposal submitted shall also include the name of the authorized representative along with the authorization letter and power of attorney.

## 12. CONSULTANT'S PROPOSAL

**12.1** List of key personnel to be fielded by the Consultants shall

be as below:

**Normal Highway Project:**

i. Team Leader Cum Senior Highway Engineer
ii. Resident cum Highway Engineer
iii. Senior Quantity cum Material Expert
iv. Bridge/Structural Engineer
v. Senior Pavement Specialist
vi. Planning Engineer
vii. Road Safety Expert

*Standalone Bridge Project:*

i. Team Leader Cum Senior Bridge Engineer
ii. Resident cum Pavement Specialist
iii. Bridge/Structural Engineer
iv. Planning Engineer
v. Senior Quantity cum Material Expert
**vi.** Road Safety Expert

**Standalone Tunnel Project:**

i. Team Leader Cum Senior Tunnel Expert
ii. Resident cum Excavation Specialist
iii. Senior Geotechnical Expert

iv. Tunnel Design Engineer
v. Tunnel Safety Expert
vi. Planning Engineer
vii. Senior Geologist

12.2 Broad job-description and minimum qualification for key personnel mentioned in Section-VIA . However, higher marks shall be accorded to the Candidate with higher relevant qualification and experience. All the CV's of the personals mentioned in Para5.3 (iii) of Data Sheet shall be evaluated at the time of evaluation of technical proposal. The **age of the Key Personnel should not be more than 65 years on the date of submission of proposal.** Consultants are advised in their own interest to frame the technical proposal in an objective manner as far as possible so that these could be properly assessed in respect of points to be given as part of evaluation criteria. The bio-data of the key personnel should be signed on every sheet by the personnel concerned and the last sheet of each bio-data should also be signed by the authorised signatory for the Consultant. The key personnel shall also certify at the end of their bio- data proforma that they have not left any of the Employer works without completing of their assignment and have not accepted any other offer at the time of signing of the bio-data and as such shall be available to work with the Authority Engineer, if the Project is awarded. In case the key personnel leaves the assignment without approval of Employer, Employer would beat liberty to take any appropriate action against that key personnel including debarment. The CV submitted by selected firm/JV shall be hoisted on official website of Employer.

12.3 In addition to above, consultants are required to propose other key personnel, sub-professional staff and other field engineers as detailed in **Section-VIA** and the minimum qualification requirements for the same is enclosed in **Section VIA**

## *13. PERIOD OF SERVICES*

13.1 The services of an Authority's Engineer will be in phases as per Contract Agreement.

13.1.1 The appointment of the Authority's Engineer shall initially be as per details given below.

| **Period of service (in months)** | **Construction period (in months)** | **Maintenance/ DLP Period (in months)** |
|---|---|---|
| Construction Period + DLP Period as per Civil Contract Agreement | — | DLP Period as per Civil Contract Agreement |

The proposed manpower deployment for this period shall be matching the activities to be performed during the said period. The time frame for services during the deployment of key personnel during this period shall be as shown in **Section VIA**. Extension of Time for providing services of Engineer may the Authority's be_- extended concurrently with the Extension of EPC Time granted, if any, to the Contractor for the project, Subject to satisfactory| performance of the Authority's Engineer and limited to original period of consultancy services.

*14. Project Coordinator*

The Firm shall appoint a personnel from its head office to act as Project Coordinator for the assignment with approval of the Authority. The CV of the project coordinator shall be submitted to the Authority for approval and he shall full fill the eligibility criteria for Team Leader as per RFP. For the firms having rating score of more than 90, no approval of coordinators CV is required. He will be authorized to communicate with the Authority in respect of all matters pertaining to the project. If the performance of the project coordinator is found unsatisfactory, the Authority may direct replacement of the project coordinator. The cost of the Project Coordinator shall be incidental to the Consultancy Assignment.

**Annexure I- Daily Inspection Report in construction period**

| Componen t | Item Description | Description of inspection work carried out | Results of lab tests conducted (Test conducted, Pass/Fail) | Name of key personnel inspecting the work |
|---|---|---|---|---|
| 1. Road works including culverts, and minor bridges | Embankment/ Sub Grade/ GSB/ WMM/ DBM/ BC | | | |
| 2. Major Bridge works, Flyovers, ROB, RUB, VUP, PUP | Foundation/ Sub structure/ Super structure | | | |
| 3. Approach to ROB/RUB/ Major Bridges/ Viaduct / RE wall | Foundation/ Sub structure/ Super structure | | | |
| 4. Other Works | | | | |

## Annexure II- Daily Inspection Report in O&M period

| Nature of defect/ deficiency | Defect found (Yes/No) | If defect found, Chainage & side | Compliance of previous defect (Yes/No/NA) | AE Remarks |
|---|---|---|---|---|
| **ROADS** | | | | |
| **Carriageway and paved shoulders** | | | | |
| Breach or blockade | | | | |
| Pot holes | | | | |
| Removal of debris | | | | |
| **Hard/earth shoulders, side slopes, drains and culverts** | | | | |
| Desilting of drains in urban/semi- urban areas | | | | |
| **Road side furniture including road signs and pavement marking** | | | | |
| Damage to shape or position; poor visibility or loss of retro-reflectivity | | | | |
| **Street lighting and telecom (ATMS)** | | | | |
| Any major failure of the system | | | | |
| Faults and minor failures | | | | |
| **Trees and Plantation** | | | | |
| Obstruction in a minimum head- room of 5 m above carriageway or obstruction in visibility of road signs | | | | |
| **Rest areas** | | | | |
| Cleaning of toilets | | | | |
| Defects in electrical, water and sanitary installations | | | | |
| **Toll plaza[s]** | | | | |
| Failure of toll collection equipment including ETC or lighting | | | | |
| **Other Project Facilities and Approach roads** | | | | |
| Damage or deterioration in Approach Roads, - [pedestrian facilities, truck lay-bys, bus-bays, bus-shelters, cattle crossings, Traffic Aid Posts, Medical Aid Posts and other works] | | | | |

## Annexure III- Weekly Inspection Report in O&M period

| Nature of defect or deficiency | | Defect found (Yes/No) | If defect found, Chainage & side | Compliance of previous defect (Yes/No/NA) | AE Remarks |
|---|---|---|---|---|---|
| ROADS | | | | | |
| (a) | Carriageway and paved shoulders | | | | |
| (i) | Breach or blockade | | | | |
| (ii) | Roughness value exceeding 2,500 mm in a stretch of 1 km (as measured by a standardised roughometer/bump integrator) | | | | |
| (iii) | Pot holes | | | | |
| (iv) | Cracking in more than 5% of roadsurface in a stretch of 1 km | | | | |
| (v) | Rutting exceeding 10 mm in more than 2% of road surface in a stretch of 1 km (measured with 3 m straightedge) | | | | |
| (vi) | Bleeding/skidding | | | | |
| (vii) | Ravelling/Stripping of bitumen surface exceeding 10 sq m | | | | |
| (viii) | Damage to pavement edges exceeding 10 cm | | | | |
| (ix) | Removal of debris | | | | |
| (b) | Hard/earth shoulders, side slopes, drains and culverts | | | | |
| (i) | Variation by more than 2% in the prescribed slope of camber/cross fall | | | | |
| (ii) | Edge drop at shoulders exceeding 40 mm | | | | |
| (iii) | Variation by more than 15% in the prescribed side (embankment) slopes | | | | |
| (iv) | Rain cuts/gullies in slope | | | | |

| Nature of defect or deficiency | | Defect found (Yes/No) | If defect found, Chainage & side | Compliance of previous defect (Yes/No/NA) | AE Remarks |
|---|---|---|---|---|---|
| (v) | Damage to or silting of culverts and side drains during and immediately preceding the rainy season | | | | |
| (vi) | Desilting of drains in urban/semi-urban areas | | | | |
| (c) | Road side furniture including road signs and pavement marking | | | | |
| (i) | Damage to shape or position;<br>poor visibility or loss of retro-reflectivity | | | | |
| (d) | Street lighting and telecom (ATMS) | | | | |
| (i) | Any major failure of the system | | | | |
| (ii) | Faults and minor failures | | | | |
| (e) | Trees and plantation | | | | |
| (i) | Obstruction in a minimum head-room of 5 m above carriageway or obstruction in visibility of road signs | | | | |
| (ii) | Deterioration in health of trees and bushes | | | | |
| (iii) | Replacement of trees and bushes | | | | |
| (iv) | Removal of vegetation affecting sight line and road structures | | | | |
| (f ) | Rest areas | | | | |
| (i) | Cleaning of toilets | | | | |
| (ii) | Defects in electrical, water and sanitary installations | | | | |
| (g) | Toll plaza[s] | | | | |
| (i) | Failure of toll collection equipment including ETC or lighting | | | | |
| (ii) | Damage to toll plaza | | | | |
| (h) | Other Project Facilities and Approach roads | | | | |

| Nature of defect or deficiency | | Defect found (Yes/No) | If defect found, Chainage & side | Compliance of previous defect (Yes/No/NA) | AE Remarks |
|---|---|---|---|---|---|
| (i) | Damage or deterioration in Approach Roads, -[pedestrian facilities, truck lay-bys, bus-bays, bus- shelters, cattle crossings, Traffic Aid Posts, Medical Aid Posts and other works] | | | | |
| **BRIDGES** | | | | | |
| **(a)** | **Superstructure of bridges** | | | | |
| (i) | Cracks | | | | |
| (ii) | Spalling/scaling | | | | |
| **(b)** | **Foundations of bridges** | | | | |
| (i) | Scouring and/or cavitation | | | | |
| **(c)** | **Piers, abutments, return walls and wing wallsof bridges** | | | | |
| (i) | Cracks and damages including settlement and tilting | | | | |
| **(d)** | **Bearings (metallic) of bridges** | | | | |
| (i) | Deformation | | | | |
| **(e)** | **Joints in bridges** | | | | |
| (i) | Loosening and malfunctioning of joints | | | | |
| **(f)** | **Other items relating to bridges** | | | | |
| (i) | Deforming of pads in elastomeric bearings | | | | |

| | | | | | |
|---|---|---|---|---|---|
| (ii) | Gathering of dirt in bearings and joints; or clogging of spouts, weep holes and vent-holes | | | | |
| (iii) | Damage or deterioration in parapets and handrails | | | | |
| (iv) | Rain-cuts or erosion of banks of the side slopes of approaches | | | | |
| (v) | Damage to wearing coat | | | | |
| (vi) | Damage or deterioration in approach slabs, pitching, apron, toes, floor or guide bunds | | | | |
| (vii) | Growth of vegetation affecting the structure or obstructing the waterway | | | | |

**Annexure IV- Month of survey for equipment based road condition assessment**

Equipment based road inspection shall be done by the Authority's Engineer twice a year as per the month of the year defined in the following table.

However, since the first survey shall be conducted at the time of completion testing, the following modification to the schedule shall be adopted. For example, if majority of highway length (>50%) passes through a state, where defined survey months are May and November, if completion testing is conducted in April, then the first equipment based survey shall be conducted in the month of April. This shall be considered as the equipment based survey to be conducted in the month of May. The 2nd equipment based survey shall be conducted in the month of November, the 3rd survey shall be conducted in the month of May and so on. As regards FWD, the first test/survey shall be conducted at the time of completion in April. The 2nd test/survey shall be conducted in April of next year and so on.

| Region | State | Survey before rains | Survey after rains |
|---|---|---|---|
| East | Bihar | May | Nov |
| East | Chhattisgarh | May | Nov |
| East | Jharkhand | May | Nov |
| East | Orissa | May | Nov |
| East | West Bengal | May | Nov |
| Central | Madhya Pradesh | May | Nov |
| NE | Arunachal Pradesh | Mar | Oct |
| NE | Assam | Mar | Oct |
| NE | Manipur | Mar | Oct |
| NE | Meghalaya | Mar | Oct |
| NE | Mizoram | Mar | Oct |
| NE | Nagaland | Mar | Oct |
| NE | Sikkim | Mar | Oct |
| NE | Tripura | Mar | Oct |
| North | Chandigarh | May | Nov |
| North | Delhi | May | Nov |

| | | | |
|---|---|---|---|
| North | Haryana | May | Nov |
| North | Himachal | May | Nov |
| North | Jammu And Kashmir | May | Nov |
| North | Punjab | May | Nov |
| North | Uttar Pradesh | May | Nov |

| Region | State | Survey before rains | Survey after rains |
|---|---|---|---|
| North | Uttaranchal | May | Nov |
| South | Andaman And Nicobar Islands | Apr | Nov |
| South | Andhra Pradesh | Apr | Nov |
| South | Karnataka | Apr | Nov |
| South | Kerala | Apr | Nov |
| South | Pondicherry | Jun | Jan |
| South | Tamil Nadu | Jun | Jan |
| West | Dadar Nagar Haveli | Apr | Oct |
| West | Daman And Diu | Apr | Oct |
| West | Goa | May | Nov |
| West | Gujarat | Apr | Oct |
| West | Maharashtra | May | Nov |
| West | Rajasthan | Apr | Oct |

**Annexure V- Monthly Progress Report in Construction Phase**

[NAME & LOGO OF IMPLEMENTING AGENCY]

**[Consultancy Services for Authority Engineer for supervision of Widening to 2LPS From Km 156.900 to Km 175.00 Dugadda to Gumkhal of NH-534 Old NH-119 on EPC Mode in the state of Uttarakhand Under Annual Plan 2025-26.]**

# Authority Engineer

*[NAME OF CONSULTING FIRM]*

## MONTHLY PROGRESS REPORT NO.

## *[XX]* FOR THE MONTH OF:

## *[MONTH], [YEAR]*

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# 1 Executive Summary

## 1.1 Construction progress in current month

| Key reporting metrics | Value/ %/ Amount |
|---|---|
| Scheduled Physical Progress (%) | |
| Cumulative Physical Progress upto current month (%) | |
| Physical Progress during current month (%) | |
| Financial progress (%) | |
| Cumulative Expenditure till date (Rs Cr) | |
| Tests passed as % of total tests witnessed by IE | |
| Tests passed as % of total tests conducted by IE | |
| Number of pending COS proposals | |
| Amount for pending COS (Rs Cr) | |

## *1.2 Current issues and recommended actions by IE / AE*

1. **<u>Slow Progress of Structures:</u> The progress of structures (especially, major bridges, flyovers and ROB's) is very slow. Overall progress is only XX%. Out of the total YY underpasses not even single underpass structure and its approaches is completed so far. No bridge is open to traffic so far.**

   - ***Recommendation: Concessionaire should improve the progress of structures. Request for revised workplan from Concessionaire including specific activities on structures.***

2. <u>Status of Change of Scope Proposals:</u> Concessionaire has submitted *Xx No.* Change of Scope proposals. *Yy No.* of them are still pending for decision. Concessionaire has not submitted necessary clarifications /details for the following Changes of Scope in spite of several reminders.

   - ***Recommendation:*** *Concessionaire to submit all pending clarifications to Authority. Authority and Concessionaire to expedite pending COS proposals.*

1.3 **Strip Plan**

| **1. Work Front Unavailable & reason for unavailability** | **2.Length Completed by layer (MCW)** | **3. Length Completed by layer ( Service Road)** |
|---|---|---|
| | | |

## 1.3 Strip Plan (Details)

# 2 Project Overview

## 2.1 Salient Features of Project

| | |
|---|---|
| **Project Name** | **Consultancy Services for Authority Engineer for supervision of Widening to 2LPS From Km 156.900 to Km 175.00 Dugadda to Gumkhal of NH-534 Old NH-119 on EPC Mode in the state of Uttarakhand Under Annual Plan 2025-26.** |
| **NH No. (New/ Old)** | **NEW 534/ OLD 119** |
| **Scheme/ Phase** | |
| **Mode of the Execution (BOT Toll/ BOT Annuity/ EPC/ HAM/ Item Rate/ Others)** | **EPC** |
| **No. of Lanes/ Configuration** | **Two Lanes** |
| **Length of the Project (in Km)** | **18.1** |
| **Total Project Cost (in Cr)** | |
| **No. of Bypasses** (Name of Town, Length) | **N.A** |
| **No. of Major Bridges** (Number and Location) | |
| **No. of Toll Plazas** (Number and Location) | |
| **No. of Fly Overs** (Number and Location) | |
| **DPR Authority's Engineer Name** | |
| **Lead & Consortium Members of Banks** | |
| **Concessionaire Name** (SPV & Parent Company) | |
| **Date of Award** (LOA Date) | |
| **Appointed Date** | |
| **Concession Period** | |
| **Construction Period** (in Days) | |
| **O&M Period** (in Days) | |
| **Scheduled Date of Completion** | |
| **Authority Engineer** | |
| **IE / AE Agreement Date** | |

| | |
|---|---|
| **IE / AE Mobilization Date** | |

## 2.2 Project Milestones

| Project Milestone | Description (Days from Appointed Date) | Planned | | Actual | | Delay(No. of months) | Current Status |
|---|---|---|---|---|---|---|---|
| | | Physical Progress (%) | Scheduled Date | Physical Progress (%) | Revised Date | | |
| Mileston eI | [Description] | 25 | [DD/MM/YYYY] | 25 | [DD/MM/YYYY] | 5 | Achieved |
| **Milestone II** | [Description] | 65 | [DD/MM/YYYY] | | [DD/MM/YYYY] | 22 | Started, not achieved |
| **Scheduled Completion** | [Description] | 100 | [DD/MM/YYYY] | | [DD/MM/YYYY] | 21 | Not started |

## 2.3 Location Map

## 2.4 Key Plan

*[Above image is illustrative only. Please include chainage and name below the axis and list of features above the axis]*

# 3 Critical Issues & Action Log

## 3.1 Pending Issues & Action Log

| S.No | Issue Description | Type | Ongoing/ New Issue/ Resolved | Concerned Authority | Chainage(s) affected due to the issue | Length affected (km) | Action(s) taken till now | Action(s) suggested by the AE | Expected date/ ActualDate for resolving issue |
|---|---|---|---|---|---|---|---|---|---|
| **1** | Diversion of Xx ha of forestLand | Clearance | Ongoing Issue | MoEF | [Chainage] | 4 kms | 1. Proposal submitted to MoEFLetter sent by RO to MoEF nodal officer on [DD/MM/YYY Y] | Escalate to higher level officers at MoEF | [DD/MM/YYY Y] |
| **2** | 21 Compensation disbursement pending | Land Acquisition | Resolved | [CALANam e] | [Chainage] | 2.4 km | 1. Escalated to chief secretary level through DO from Chairman/ Secretary, dated [DD/MM/YYY Y] | | [DD/MM/YYY Y] |
| **3** | Slow progressby concessionaire | Concessionaire Issue | New Issue | [Concess. Name] | [Chainage] | 57 km | None | Project Director to call higher ups of concessionaire | [DD/MM/YYY Y] |

## 3.2 Obligations as per Contract

# 4 Physical Progress

| Component | % Weightage | Physical Progress(During Current Month) | Physical Progress (Cumulative, Upto Current Month) |
|---|---|---|---|
| **Road Works** | 35.00% | 5% | 15.0% |
| **Major Bridge works and ROB / RUB** | 40.00% | 1.20% | 26.2% |
| **Structures** | 21.00% | 0.00% | 0.8% |
| **Other Works** | 4.00% | 0.00% | 0.0% |
| **Physical Progress** | | **2 %** | **42.0%** |

## 4.1 Detailed Scope of Work & Physical Progress by Component

| Component | Cost Weightage in Project (%) | Item Description | Cost Weightage in Component (%) | Planned in Scope (As per Scope of Work) | Progress till Date | %Physical Progress | Value of Physical Progress (7X4) |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 1. Road works including culverts, minor bridges, underpasses, overpasses, approaches to ROB/RUB/ Major Bridges/ Structures (but excluding service roads) | 35.00% | 1. C&G | 5.00% | 80 km | 45 km | 56% | 2.8% |
| | | 2. Embankment | 5.00% | 80 km | 40 km | 50% | 2.5% |
| | | 3. Sub Grade | 5.00% | 80 km | 35 km | 44% | 2.2% |
| | | 4. GSB | 5.00% | 80 km | 33 km | 41% | 2.1% |
| | | 5. WMM | 5.00% | 80 km | 30 km | 38% | 1.9% |
| | | 6. DBM | 5.00% | 80 km | 28 km | 35% | 1.8% |
| | | 7. BC | 5.00% | 80 km | 27 km | 34% | 1.7% |
| 2. Major Bridge works and ROB/RUB | 40.00% | 1. Major Bridges | 10.00% | 6 No | 6 No | 100% | 10.0% |
| | | 2. Minor Bridges | 5.00% | 23 No | 21 No | 91% | 4.6% |
| | | 3. Flyovers | 5.00% | 2 No | 0 | 0% | 0.0% |
| | | 4. ROB | 5.00% | 228 No | 121 No | 53% | 2.7% |
| | | 5. VUP | 5.00% | 11 No | 6 No | 55% | 2.7% |
| | | 6. PUP | 5.00% | 15 No | 6 No | 40% | 2.0% |
| | | 7. RUB | 5.00% | 136 No | 114 No | 84% | 4.2% |
| 3. Structures (elevated sections, reinforced earth) | 21.00% | 1. Foundation | 5.00% | 35 km | 2.2 km | 6% | 0.2% |
| | | 2. Sub-structure | 5.00% | 35 km | 2.1 km | 6% | 0.2% |
| | | 3. Super-structure | 5.00% | 35 km | 2.1 km | 6% | 0.2% |
| | | 4. Reinforced Earth Wall | 6.00% | 35 km | 2.1 km | 6% | 0.2% |
| 4. Other Works | 4.00% | 1. Toll Plaza | 4.00% | 4 No | 0 | 0% | 0.0% |
| GRAND TOTAL | | | 100% | | | | 42.0 % |

4.2 Details of verification of Source of material received at yard/Plant/ site

| Material | Quantity received at Project Site | Approved quantity and source of material | Quantity received from the approved source |
|---|---|---|---|
| 1. | Earth | | |
| 3. | Cement | | |
| 4. | Steel | | |
| 5. | Bitumen | | |
| 6. | Admixtures | | |
| 7. | Bearings | | |
| 8. | Other materials<br>i)<br>ii)<br>iii) | | |

# 5 Land Acquisition and Clearance

## 5.1 LA Summary

| Description | Total Required (ha) | Total in possessionat start (ha) | Total to be acquired (ha) |
|---|---|---|---|
| **Existing ROW** | 135.00 | 135.00 | 0.00 |
| **Pvt. Land To be Acquired** | 240.00 | 0.000 | 240.00 |
| **Public Land To be Transferred** | 52.00 | 50.35 | 1.65 |
| **Grand Total** | **427** | **185** | **242** |

## 5.2 LA Detail by CALA

| CALA | Total Land left to be Acquired (Ha) | 3H Pend-ing (ha) | 3HDone(ha) | 3G Pend-ing (ha) | 3GDone(ha) | 3DPending (ha) | 3DDone(ha) | 3APending(Ha) | 3ADone(ha) | Amount Awarded (Crore Rs.) | Amount Deposited(Crore Rs.) | Amount Disbursedby CALA(Crore Rs.) | Pending Amount (Crore Rs.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *CALA1]* | 150 | 15 | 15 | 15 | 135 | 0 | 150 | 0 | 150 | 396 | 370 | 327 | 43 |
| *[CALA2]* | 67 | 0 | 0 | 0 | 67 | 0 | 67 | 0 | 67 | 132 | 132 | 120 | 23 |
| *[CALA3]* | 23 | 23 | 23 | 23 | 0 | 14 | 9 | 0 | 23 | 0 | 0 | 0 | 0 |
| **Grand Total** | **240** | **38** | **202** | **38** | **202** | **14** | **226** | **0** | **240** | **528** | **502** | **447** | **66** |

## 5.3 LA Detail by Village for each

### CALACALA 1

## 5.4 Manpower details of CALA

| CALA | Provided by <Agency> / State Govt | Amins / Surveyors | Patwaris /Village accountant | Revenue Inspectors/ Kanungo | Tehsildars/ Dep. Tehsildars | Clerks / Sahayaks | Accountants | Computer operators | Peons | Chainman | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *[CALA1]* | <Agency> | 4 | 1 | 0 | 0 | 3 | 0 | 3 | 1 | 0 | 12 |
| *[CALA1]* | State Govt | 2 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 5 |
| *[CALA2]* | <Agency> | | | | | | | | | | |
| *[CALA2]* | State Govt | | | | | | | | | | |
| **Grand Total** | | | | | | | | | | | |

## 5.5 Clearances Summary

| Environment | | | | |
|---|---|---|---|---|
| **Proposal Description** | **Status** | **Length Impacted** | **Current Stage** | **Issues/ Comments** |
| Approval of construction in coastal zone | Obtained | Nil | Completed | |
| **Forest Land** | | | | |
| **Proposal Description** | **Status** | **Length Impacted** | **Current Stage** | **Issues/ Comments** |
| Diversion of Xx ha ([Chainage]) | Pending | [Lengthin km] | Completed | Stage 1 clearance Pending |
| Diversion of Xx Ha. ([Chainage]) | Obtained | Nil | Ongoing | |

| Wildlife | | | | |
|---|---|---|---|---|
| **Proposal Description** | **Status** | **Length Impacted** | **Current Stage** | **Issues/ Comments** |
| Diversion of Xx Ha. of forest land | Pending | [Lengthin km] | Ongoing | Queries sent to MoEF by RO, compliance pending |
| TreeCutting | | | | |
| Proposal Description | Status | Length Impacted | Current Stage | Issues/ Comments |
| N.A. | N.A. | N.A. | N.A. | N.A. |
| Railway (ROBs/RUBs) | | | | |
| Proposal Description | Status | Length Impacted | Current Stage | Issues/ Comments |
| [GADNumber] | Proposal Submitted, Approval pending | [Chainage] | Uploaded on portal on [DD/MM/YYYY] | N.A. |

### 5.6 Status of utilities shifting

| Utilit y Categ o ry | Na m e | Statu s | Leng t h affec t ed | Depar t ment | Date of request by Authori ty for estimat e | Date when Estimat e was Receive d from concern e ddept. | Date of Appro val by Author it yRO/ HQ | Date of Depos it of super-vision charg e | Prog re ss ofPh ys ical Shift i ng | Date of Certific at ion from Agency for Comple ti o n | Esti ma te Amo un t | Issue / Comm e nts |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Wate r | | Estim a te Appr o ved | [Leng t h inkm] | [DEPA RT MENT] | [DD/MM / YYYY] | [DD/MM/ YYYY] | [DD/M M/ YYYY] | [DD/M M / YYYY] | Not start ed | TBD | | |
| Electri c ity | | Estim a te Appr o ved | [Leng t h inkm] | [DEPA RT MENT] | [DD/MM / YYYY] | [DD/MM/ YYYY] | [DD/M M/ YYYY] | [DD/M M / YYYY] | Not start ed | TBD | | |
| Other s | | Estim a te Appr o ved | [Leng t h inkm] | [DEPA RT MENT] | [DD/MM / YYYY] | [DD/MM/ YYYY] | [DD/M M/ YYYY] | [DD/M M/ YYYY] | | TBD | | |

## 6 Change of Scope

| S No. | Proposal Details | Date of first submission to AE | Current Status | COS Amoun t | ed/ Actual Date ofApproval |
|---|---|---|---|---|---|
| 1 | Construction of [Flyover Name] at | [DD/MM/YYYY] | Approved in principle by Authority. Detailed quantities in proper order yet to be | [+/- Amou nt] | [DD/MM/YYYY] |

| | | | | | |
|---|---|---|---|---|---|
| | [Chainage] | | Submitted | | |
| 2 | Nallah diversion through box culvert at[Chainage] | [DD/MM/YYYY] | Clarifications to be submitted by Concessionaire , expected date[DD/MM/YYYY] | [+/- Amount] | [DD/MM/YYYY] |

1 **Mobilization of Resources: -** All contractor equipment should be mandatorily fitted with GPS and the tracking of the same shall be maintained by the AE and submitted as part of the MPR. Vehicles without evidence of GPS history shall not be accepted as part of machinery deployment of the Contractor by the AE. The details of Mobilization of resource shall be submitted in the following format

| S No. | Equipment Name | Make | Model | Age of Equipment | Details of ownership/Hiring | Planned / Required Quantity | Actual Quantity | Deployed During the Month | Reason(s) for Under/Over Mobilization | ExpectedDelay due to Under-Mobilization | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Excavator/ Poclain | | | | | | 5 | | | | |
| | Paver | | | | | | 2 | | | | |
| | Transit Meter | | | | | | 0 | | | | |
| | Plate Compactors | | | | | | 0 | | | | |
| | [ADD OTHERS] | | | | | | | | | | |

2. **Financial Progress Details (for PPP projects)**

## 2.1 Pen Picture - Escrow

| TPC (Cr) | Cumulative inflowto Escrow till previous month (Cr) | Cumulative outflowfrom Escrow till previous month(Cr) | Inflow to Escrow during the month(Cr) | Outflow from Escrow during themonth(Cr) |
|---|---|---|---|---|
| 1,206 | 1,033 | 900 | 30 | 35 |

Are the Escrow withdrawals in accordance with the order of withdrawal as specified in the Concession Agreement?

*Tick as applicable*

If not, details to be provided below:

## 2.2 Escrow details

| TPC (Cr) | Cumulativ eexp. till date(Cr) | Escrow Plan till date-Debt (BOT)(Cr) | Escrow Plan till date-Equity (BOT)(Cr) | Escrow Plan till date-VGF (BOT) (Cr) | Escrow Actual till date-Debt (BOT) (Cr) | Escrow Actual till date-Equity(BOT) (Cr) | Escrow Actual till date-VGF (BOT) (Cr) |
|---|---|---|---|---|---|---|---|
| 1,206 | 1,033 | 900 | 306 | - | 769 | 264 | - |

## 3. Summary of quality control tests

### 3.1 Tests witnessed by IE/ AE

| Description | Frequency of tests | | Unit | Total test up toPrevious Month | | | Total test in This Month | | | Cumulative No. oftests | | | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Nos | Qty. | | Conducted | Pass | Fail | Conducted | Pass | Fail | Conducted | Pass | Fail | |
| **Sub grade** | | | | | | | | | | | | | |
| Procter test | 1 | 150 | m3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0 | | | | | | | | | | | |
| Atterberg Limits | 1 | 1500 | m3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Free Swell Index | 1 | 1500 | m3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Grain Size Analysis | 1 | 1500 | m3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| C.B.R | 1 | 3000 | m3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| **Granular Sub Base** | | | | | | | | | | | | | |
| Gradation | 1 | 200 | m3 | 151 | 151 | 0 | 5 | 5 | 0 | 156 | 156 | 0 | |
| Atterberg Limits | 1 | 200 | m3 | 151 | 136 | 15 | 5 | 5 | 0 | 151 | 136 | 15 | |
| Procter test | 1 | 1500 | m3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| **Wet Mix Macadam** | | | | | | | | | | | | | |
| **Filter materia l** | | | | | | | | | | | | | |
| **Concrete** | | | | | | | | | | | | | |
| **Cement** | | | | | | | | | | | | | |
| **Water** | | | | | | | | | | | | | |
| **Prim e Coat** | | | | | | | | | | | | | |
| **Tack coat** | | | | | | | | | | | | | |
| **Dense Bituminou** | | | | | | | | | | | | | |

| Description | Frequency of tests | | Unit | Total test up toPrevious Month | | | Total test in This Month | | | Cumulative No. oftests | | | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Nos | Qty. | | Conducted | Pass | Fail | Conducted | Pass | Fail | Conducted | Pass | Fail | |
| s Macadam | | | | | | | | | | | | | |
| Bituminous Concrete | | | | | | | | | | | | | |
| Bitumen test | | | | | | | | | | | | | |
| DLC | | | | | | | | | | | | | |
| Steel | | | | | | | | | | | | | |

### 3.2 Tests conducted by IE / AE

*<Quality inspection test results to be reported in a table similar to the table provided inprevious section>*

## 4. Monitoring of maintenance obligations during construction phase

### 4.1 Critical issues and action log

| SNo | Issue Description | Ongoing/New Issue | Concerned Authority | Chainage(s) affected due | Length affected | Action(s) taken till now | Action(s) suggested by SC | Expected Date forresolving |
|---|---|---|---|---|---|---|---|---|
| 1 | Drying up of plants on median | Ongoing | Concessionaire | 325+200 to 327+800 | 2.6 | Irregular watering | Replacement of plants and daily watering | NA |
| 2 | Large potholes | New | Concessionaire | 387+300 LHS | 0.1 | None | Filling of potholes | <DD/MM> |

### 4.2 Summary of repair work

| SNo | Description | Unit | Total | Work doneupto previous month | Work done during reporting month | Balance | Remarks |
|---|---|---|---|---|---|---|---|
| **1** | **Carriageway and paved shoulders** | | | | | | |
| (a) | Pot Holes | Sqm | 42 | - | - | 42 | |
| (b) | Roughness value exceeding 2,500mm | mm | | | | | |
| (c ) | Cracking in more than 5% of road surface | Sqm | 7179 | - | - | 7179 | |
| (d) | Rutting exceeding 10mm in more than 2% of road surface | Sqm | 5 | - | - | 5 | |
| (e) | Bleeding/Skiding | Sqm | | | | | |
| (f) | Ravelling | Sqm | | | | | |
| (g) | Damage to pavement edges exceeding 10cm | m | | | | | |
| **2** | **Hard/Earth Shoulders** | | | | | | |

| SNo | Description | Unit | Total | Work doneupto previous month | Work done during reporting month | Balance | Remarks |
|---|---|---|---|---|---|---|---|
| (a) | Rain cuts/ gullies in slope | Cum | 650 | 25 | - | 625 | |
| (b) | Edge drop at shoulders exceeding 40 mm | m | | | | | |
| **3** | **Drains and culverts** | | | | | | |
| (a) | Cleaning of Culvert | Nos | 1 | - | - | 1 | |
| (b) | Damage to or silting of culverts | | | | | | |
| (c) | Silting of drains in urban/semi urban areas | | | | | | |
| **4** | **Road furniture** | | | | | | |
| (a) | Sign Boards | Nos | 456 | - | - | 456 | |
| (b) | Kilometer Stones | | | | | | |
| (c ) | Metal Beam Crash Barrier | | | | | | |
| (d) | Bus Shelters | Nos | 72 | 4 | - | 68 | |
| (e) | Junction signs | Nos | 26 | 8 | - | 18 | |
| (f) | Median Grills | Rmt | 894 | - | - | 894 | |
| (g) | Studs | Nos | 5328 | - | - | 5328 | |
| (h) | Delinators | Nos | 8236 | - | - | 8236 | |
| (i) | Road Marking | Sqm | 1899 | - | - | 1899 | |
| (j) | Kerb Painting | Sqm | 4575 | - | - | 4575 | |
| (k) | Guard Posts | Nos | 3657 | - | - | 3657 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **5** | **Street lighting and telecom (ATMS)** | | | | | | |
| (a) | Street lights | Nos | | | | | |
| (b) | Telecom | Nos | | | | | |
| **6** | **Trees and plantation** | | | | | | |
| (a) | Removal of vegetation affecting sight line and road structures | Ha | 77.42 | - | 3.57 | 73.85 | |
| (b) | Replacement of trees and bushes | Nos | 15072 | - | - | 15072 | |

| SNo | Description | Unit | Total | Work doneupto previous month | Work done during reporting month | Balance | Remarks |
|---|---|---|---|---|---|---|---|
| **7** | **Buildings and bridges** | | | | | | |
| (a) | Rest areas | | | | | | |
| (b) | Toll plazas | | | | | | |
| (c ) | Bridges | | | | | | |

### 4.3 Status of damages

| SNo | Period | Amount of damages (Rs) |
|---|---|---|
| 1 | Upto June 2016 | |
| 2 | Jul 2016 | |
| 3 | Aug 2016 | |
| 4 | Sep 2016 | |
| | **Total** | |

## 5. Safety features

### 5.1 Pen picture of safety features

Details to be provided after assessment of the site requirement vis-à-vis provisions in the Concession Agreement:

| Location of Black Spots | Suggested Remedial Measures within provisions of Concession Agreement | Additional Remedial Measures (if any) | Financial implications of additional Remedial Measures for Authority(Cr.) |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

## 5.2 Accident Report

| S No | Date | Chainage no | Time of accident | Sex (M/F) | A | B | C | D | E | F | G | H | I | J | K | No of affected | | | Help provided by |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Accident | Nature of | Classification of | Causes | Load conditions | Road | Intersection type | Weather | Age of victim | Type of victim | Type of vehicle | Fatal | Major | Minor | |
| 1 | 1/1/17 | 382/050 RHS | 05:25 pm | M | 2 | 2 | 3 | 4 | 1 | 1 | - | 1 | 3 | 1 | 3 | - | 1 | 1 | Ambu |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

## Mapping of report fields to responses

| | |
|---|---|
| A | 1. Urban 2. Rural |
| B | 1. Overturned 2. Head On Collision 3. Hit from Back 4. Hit to Fix Object 5. Right turn Collision 6. Left turn Collision 7. Veered Out off The Road 8. Hit Pedestrian 9. Unknown/Hit & Ran Away |
| C | 1. Fatal 2. Major injury 3. Minor injury |
| D | 1. Drunken 2. Over Speeding 3. Vehicle out of Control 4. Driven on wrong side 5. Mechanical Problem 6. Drowsiness/Not Applicable 7. Fault of Driver |
| E | 1. Normally Loaded 2. Overloaded/Handing 3. Empty 4. Unknown |
| F | 1. Straight road 2. Slight Curve 3. Sharp Curve 4. Hump 5. Dip |
| G | 1. T-Junction 2. Y-Junction 3. Four arm Junction 4. Staggered Junction 5. Junction with more than 6. Round about |
| H | 1. Fine/Clear 2.Mist/Fog 3. Cloudy 4. Light Rain 5. Heavy Rain 6. Strong Wind 7. Dust Storm 8. Cold 9. Hot |
| I | 1. 0-18 Years 2. 18-25 Years 3. 25-40 Years 4.40-60 Years 5. 60-80 Years |
| J | 1. Driver 2. Passenger 3. Pedestrian 4. Cyclist 5. Others |
| K | 1. Two Wheeler 2. Auto Rickshaw 3. Car/Jeep 4. Bus 5. Light Truck 6. Heavy Truck 7. Tractor 8. Bicycle 9. Cycle Rickshaw 10. Hand Drawn Cart 11. Animal Drawn Cart |

## 6. *Annexures*

### Annex 1. Detailed List of Physical Components as per Schedule G

| Component | Physical Item |
|---|---|
| | **A- Widening and strengthening of existing road** |
| | (1) Earthwork up to top of the sub-grade |
| | (2) Granular work (sub- base, base, shoulders) |
| | (a) GSB |
| | (b) WMM |
| | (3) Shoulders |
| | (4) Bituminous work |
| | (a) DBM |

| | |
|---|---|
| | (b) BC |
| | (5) Rigid Pavement |
| | Concrete work |
| | (6) Widening and repair of culverts |
| | (7) Widening and repair of minor bridges |
| | **B- New realignment/bypass** |
| | **(1) Earthwork up to top of the sub-grade** |
| | (2) Granular work (sub- base, base, shoulders) |
| | (a) GSB |
| | (b) WMM |
| | (3) Shoulders |
| | (4) Bituminous work |
| **Road works including culverts, minor bridges, underpasses, overpasses, approaches to ROB/RUB/ Major Bridges/ Structures(but excluding service roads)** | (a) DBM |
| | (b) BC |
| | (5) Rigid Pavement |
| | Concrete work |
| | **C-New culverts, minor bridges, underpasses, overpasses on existing road,**<br>**realignments, bypasses:** |
| | (1) Culverts |
| | (2) Minor bridges |
| | (a) Foundation |
| | (b) Sub-structure |
| | (c) Super-structure (including crash barriers etc. complete) |
| | (3) Cattle/Pedestrian underpasses |
| | (a) Foundation |
| | (b) Sub-structure |
| | (c) Super-structure (including crash barriers etc. complete) |
| | (4) Pedestrian overpasses |
| | (a) Foundation |
| | (b) Sub-structure |
| | (c) Super-structure (including crash barriers etc. complete) |
| | (5) Grade separated structures |
| | (a) Underpasses |

| Component | Physical<br>Item |
|---|---|
| | (i) Foundation |
| | (ii) Sub-structure |
| | (iii) Super-structure (including crash barriers etc.complete) |
| | (b) Overpass |
| | (i) Foundation |
| | (ii) Sub-structure |
| | (iii) Super-structure (including crash barriers etc. complete) |
| | (c) Flyover |
| | (i) Foundation |
| | (ii) Sub-structure |
| | (iii) Super-structure (including crash barriers etc. complete) |
| | (d) Foot over Bridge |
| | **A- Widening and repairs of Major Bridges** |
| | (1) Foundation |
| | (a) Open Foundation |
| | (b) Pile Foundation/Well Foundation |
| | (2) Sub-structure |
| | (3) Super-structure (including crash barriers etc. complete) |
| | **B- Widening and repair of** |
| | (a) ROB |
| | (1) Foundation |
| | (2) Sub-structure |
| | (3) Super-structure (including crash barriers etc. complete) |
| | (b) RUB |
| | (1) Foundation |
| | (2) Sub-structure |
| | (3) Super-structure (including crash barriers etc. complete) |
| | **C- New Major Bridges** |
| | (1) Foundation |
| | (a) Open Foundation |

| | |
|---|---|
| **MajorBridge works and ROB/RUB** | (b) Pile Foundation/Well Foundation |
| | (2) Sub-structure |
| | (3) Super-structure (including crash barriers etc. complete) |
| | **D- New rail-road bridges** |
| | (a) ROB |
| | (1) Foundation |
| | (2) Sub-structure |
| | (3) Super-structure (including crash barriers etc. complete) |
| | (b) RUB |
| | (1) Foundation |
| | (2) Sub-structure |
| | (3) Super-structure (including crash barriers etc. complete) |
| **Structures (elevated sections, reinforced earth)** | **(1) Foundation** |
| | **(2) Sub-structure** |
| | **(3) Super-structure (including crash barriers etc. complete)** |
| | **(4) Reinforced Earth Wall (includes Approaches of ROB, Underpasses, Overpasses, Flyover etc.** |
| **Other Works** | **(i) Service roads/ Slip Roads** |
| | **(ii) Toll Plaza** |
| | **(iii) Road side drains** |
| | **(iv) Road signs, markings, km stones, safety devices, ....** |
| | **(a)Road signs, markings, km stones, ....** |
| | **(b) Concrete Crash Barrier/ W-Beam Crash Barrier in Road work** |
| | **(v) Project facilities** |
| | (a) Bus bays |
| | (b) Truck lay-byes |
| | (c) Rest areas |
| | **(vi) Repairs to bridges/structures** |
| | **(vii) Road side plantation** |
| | **(viii) Protection works** |
| | (a) Boulder Pitching on slopes |
| | (b) Toe/Retaining wall |
| | **(ix) Tunnel** |

| | |
|---|---|
| | (a) Excavation |
| | (b) Construction of support system including rock bolting, lining etc. |
| | (c) On complete completion of tunnel |
| | **(x) Miscellaneous** |

* The above list is illustrative and may require modification as per the actual scope of the work

## *Annex 2. Onwards*

IE **/ AE** should include comments, status update, data points and reports in following annexures which have not been included elsewhere in the main report. Such reports may include but not limited to:

- Review status of drawings/ design reports
- Review status of other documents
- Minutes of review meeting
- Detailed Inspection report of project highway
- Correspondence details
- Weather report
- Organizational chart of Concessionaire / Contractor and IE / AE
- List of lab equipment
- Details of user complaints
- Project photographs

**ANNEXURE-VI - FORMAT FOR MONTHLY PROGRESS REPORT DURING O&M PHASE**

सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

[NAME & LOGO OF IMPLEMENTING AGENCY]

# [PROJECT NAME (O&M)]

## Authority Engineer

[NAME OF CONSULTING FIRM]

## MONTHLY STATUS REPORT NO. *[XX]*

## FOR THE MONTH OF: *[MONTH], [YEAR]*

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6 Status of Damages for breach of maintenance activities

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6.3 Damages for non completion of major maintenance/ periodic overlay

7 Change of Scope proposals

8 Status of pending disputes……

9 Reports……

10 Monthly Toll Collection Report (Applicable only if project highway is tolled)

10.1 Accident Report

10.2 Details of complaints

10.3 Encroachment list

10.4 Lane Closure Report

11 Annexures

# 1 Executive Summary

## 1.1 Overall road condition

| Road condition | LHS | RHS |
|---|---|---|
| Satisfactory road condition | 40 km | 20 km |
| Poor road condition | 50 km | 70 km |
| **Total length of project** | **90 km** | **90 km** |

## 1.2 Key reporting metrics

| Key metrics | Value/Amount |
|---|---|
| No of pending NCRs | 35 |
| Damages amount recommended on Concessionaire (Rs Cr) | Rs 5.9 Cr |
| No of pending Change of Scope proposals | 2 |
| No of pending disputes | 2 |
| Monthly toll collection (Rs Cr) (##) | Rs 3.8 Cr |
| No of accidents | 12 |
| No of encroachments | 47 |

## 1.3 Key maintenance activities undertaken

| Asset | Maintenance activities undertaken |
|---|---|
| Pavement | • Concessionaire has commenced the work for renewal and repair of pavement on the project highway w.e.f 14th September 2016 |
| Shoulder | |
| Drainage | • Cleaning of drainage in built up areas n progress |
| Median | |
| Road furniture | • Concessionaire has taken up repairs and maintenance of MBCB and electric poles, etc on issuance of NCPs from Authority Engineer |
| Bridges | |

| | |
|---|---|
| Buildings | • As per provisions of CA and policy decided by MoRTH/<Agency>, 2 ETC lanes at each toll plaza have been operationalised w.e.f. 25th September 2016. The connectivity of ETC lanes with Central Clearing House (CCH) has been achieved<br><br>and presently ETC lanes are operationalized in Hybrid Mode due to less number of tags purchased by highway users |
| Horticulture | • Planting of new trees from Chainage 200+300 to 226+650<br><br>• Trimming of plants which were causing obstruction to highway users |

## 1.4 Pending issues

- Overlay on the entire stretch of project length of 252 km and service roads has not been taken up by Concessionaire yet since the date of completion of overlay is due in next 25 days
- Over all progress is very slow regarding repair of potholes and rutting on Main Carriageway which is causing inconvenience to highway users and is also a concern from road safety point of view.
- Street lighting in
  - **Anantapur bypass** completed on main carriageway and is energized but for service roads street lighting is pending on both sides
  - **Kurnool bypass** erection of poles only completed in main carriageway not yet energized till to date, but for service roads not started

## 1.5 Recommended actions by Authority Engineer

- In spite of the repeated requests, there is no material change in status of works pertaining to repairs/ rectifications of defects on the project highway. AE has recommended the damages of Rs 5.9 Cr on the Concessionaire on account of delay in repairs of defects in road and bridge works in terms of the provision of Clause 15.8.1 of the Concession Agreement. Concessionaire shall be liable for imposition of further damages on similar lines till the date of completion
- Concessionaire is requested to take at most care for completing the overlay before 31.03.2017 since the existing road condition is getting deteriorated day by day causing much inconvenience to the traffic

## 1.6 Strip Plan for maintenance

| | |
|---|---|
| **Satisfactory road condition**<br><br>**(Maintenance not required)** | |
| **Poor road condition (Maintenance**<br><br>**required)** | |

# 2 Project Overview

## 2.1 Key project details

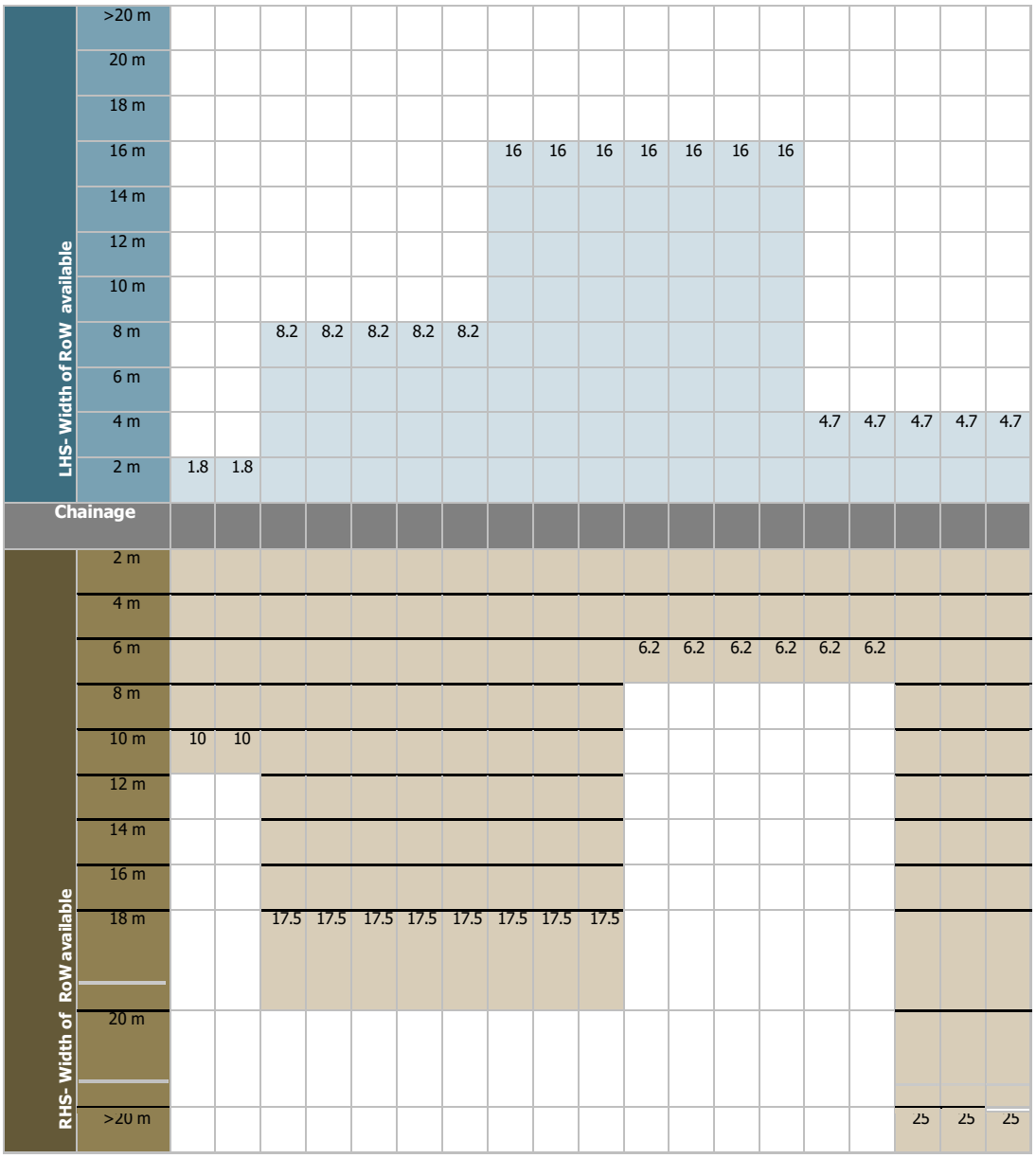
| | |
|---|---|
| **Project Name** | |
| **NH no (New/Old)** | |
| **Mode of the Project** | |
| **No. of Lanes** | |
| **Length of the Project** | |
| **Total Project Cost** | |
| **Concessionaire/ Contractor** | |
| **Date of Award (LOA date)** | |
| **Appointed Date** | |
| **Commercial Operation Date (COD)** | |
| **Concession Period** | |
| **O&M Period** | |
| **Authority Engineer** | |
| **AE Agreement Date** | |
| **AE Mobilization Date** | |
| **AE Scheduled Completion Date** | |
| **AE EOT (Extension Of Time)** | |

## 2.2 Location Map

## 2.3 Key plan

## 2.4 RoW availability

### Width of RoW available on both sides of the highway



## 2.5 Summary of project features

| SNo | Particulars | Value |
|---|---|---|
| 1 | No of flyovers | 2 |
| 2 | Service Road | 45 |
| 3 | ROBs | 5 |
| 4 | ROB location (chainage) | 261.975, 299.606, 350.547, 396.135 & 420.302 |
| 5 | RUBs | 0 |
| 6 | RUB location (chainage) | NA |
| 7 | No of Bypass | 7 |
| 8 | Length of Bypass | 43 |
| 9 | No of Major Bridges | 7 |
| 10 | No of Minor Bridges | 67 |
| 11 | No of Culvert | 640 |
| 12 | No of VUP | 16 |
| 13 | No of PUP/ Cattle Underpass | 12 |
| 14 | No of Major Intersection/ Junction | 22 |
| 15 | No of Toll Plaza | 3 |
| 16 | Location of Toll Plaza (chainage) | |
| 17 | No of Truck Laybye | 30 |
| 18 | No of Bus Bays | 122 |
| 19 | No of Wayside Amenities | 0 |
| 20 | Location of Wayside Amenities (chainage) | NA |

## 3 Critical Issues and Action taken

### 3.1 Issue and action log

| SNo | Issue Description | Ongoing/New Issue | Concerned Authority | Chainage(s) affected due tothe issue | Length | Action(s) taken till now | Action(s) suggested by | Expected Date forresolving |
|---|---|---|---|---|---|---|---|---|
| 1 | Drying up of plants on median | Ongoing | Concessionaire | 325+200to 327+800 | 2.6 | Irregular watering | Replacement of plants and daily watering | NA |
| 2 | Large potholes | New | Concessionaire | 387+300 LHS | 0.1 | None | Filling of potholes | <DD/MM> |

### 3.2 Summary of items (Cumulative Observations/ Deficiencies)

| SNo | Description | Unit | Total | Work doneupto previous month | Work done during reporting month | Balance | Remarks |
|---|---|---|---|---|---|---|---|
| **1** | **Carriageway and paved shoulders** | | | | | | |
| (a) | Pot Holes | Sqm | 42 | - | - | 42 | |
| (b) | Roughness value exceeding 2,500mm | mm | | | | | |
| (c ) | Cracking in more than 5% of road surface | Sqm | 7179 | - | - | 7179 | |
| (d) | Rutting exceeding 10mm in more than 2% of road surface | Sqm | 5 | - | - | 5 | |
| (e) | Bleeding/Skiding | Sqm | | | | | |
| (f) | Ravelling | Sqm | | | | | |
| (g) | Damage to pavement edges exceeding 10cm | m | | | | | |
| **2** | **Hard/Earth Shoulders** | | | | | | |
| (a) | Rain cuts/ gullies in slope | Cum | 650 | 25 | - | 625 | |

| SNo | Description | Unit | Total | Work doneupto previous month | Work done during reporting month | Balance | Remarks |
|---|---|---|---|---|---|---|---|
| (b) | Edge drop at shoulders exceeding 40 mm | m | | | | | |
| **3** | **Drains and culverts** | | | | | | |
| (a) | Cleaning of Culvert | Nos | 1 | - | - | 1 | |
| (b) | Damage to or silting of culverts | | | | | | |
| (c) | Silting of drains in urban/semi urban areas | | | | | | |
| **4** | **Road furniture** | | | | | | |
| (a) | Sign Boards | Nos | 456 | - | - | 456 | |
| (b) | Kilometer Stones | | | | | | |
| (c ) | Metal Beam Crash Barrier | | | | | | |
| (d) | Bus Shelters | Nos | 72 | 4 | - | 68 | |
| (e) | Junction signs | Nos | 26 | 8 | - | 18 | |
| (f) | Median Grills | Rmt | 894 | - | - | 894 | |
| (g) | Studs | Nos | 5328 | - | - | 5328 | |
| (h) | Delinators | Nos | 8236 | - | - | 8236 | |
| (i) | Road Marking | Sqm | 1899 | - | - | 1899 | |
| (j) | Kerb Painting | Sqm | 4575 | - | - | 4575 | |
| (k) | Guard Posts | Nos | 3657 | - | - | 3657 | |
| **5** | **Street lighting and telecom (ATMS)** | | | | | | |
| (a) | Street lights | Nos | | | | | |
| (b) | Telecom | Nos | | | | | |
| **6** | **Trees and plantation** | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| (a) | Removal of vegetation affecting sight line and road structures | Ha | 77.42 | - | 3.57 | 73.85 | |
| (b) | Replacement of trees and bushes | Nos | 15072 | - | - | 15072 | |
| **7** | **Buildings and bridges** | | | | | | |
| (a) | Rest areas | | | | | | |
| (b) | Toll plazas | | | | | | |
| (c ) | Bridges | | | | | | |

### 3.3 Obligations as per contract

*Please write a summary of contractual obligations of Concessionaire and non-compliances of critical obligations highlighting reasons for delay and stating pending actions*

- **<u>Critical obligations</u> of Concessionaire as per contract**
- **<u>Non compliance</u> of critical contractual obligations**

### 3.4 Major maintenance and Inspection schedule

| Item | Responsibility | Last completed on | Due date |
|---|---|---|---|
| Major maintenance | Concessionaire | *[DD/MM/YY]* | *[DD/MM/YY]* |
| Periodic overlay | Concessionaire | *[DD/MM/YY]* | *[DD/MM/YY]* |
| Pavement inspection using NSV | Authority Engineer | *[DD/MM/YY]* | *[DD/MM/YY]* |
| Roughness using Laser Profilometer | Authority Engineer | *[DD/MM/YY]* | *[DD/MM/YY]* |
| Pavement strengthusing FWD | Authority Engineer | *[DD/MM/YY]* | *[DD/MM/YY]* |
| Bridge inspection using MBIU | Authority Engineer | *[DD/MM/YY]* | *[DD/MM/YY]* |
| Road sign inspection using Reflectometer | Authority Engineer | *[DD/MM/YY]* | *[DD/MM/YY]* |
| Other | | | |

# 4 Inspection Report

## 4.1 Summary of NCR issued

| SNo | Highway asset | Total NCR issuedtill previous month (A) | NCR issued in reporting month(B) | NCR closed in reporting month(C) | Balance NCR (A+B-C) |
|---|---|---|---|---|---|
| 1 | Pavement | 48 | 12 | 25 | 35 |
| 2 | Shoulder | 7 | 0 | 3 | 4 |
| 3 | Drainage | | | | |
| 4 | Median | | | | |
| 5 | Road furniture | | | | |
| 6 | Bridges | | | | |
| 7 | Buildings | | | | |
| 8 | Horticulture | | | | |
| 9 | [Other assets] | | | | |
| | **Total** | | | | |

## 4.2 Equipment based inspection report

| | | | Pavement Surface Defects | | | | | | | Roughness | Pavement Strength | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Starting Chainage | Ending Chainage | Lane number | Cracks (cm) | Potholes (cm) | Raveling (cm) | Bleeding (cm) | Rutting depth (mm) | Texture depth (mm) | Skid Resistance | IRI (International | Elastic Modulus | Elastic Modulus | Elastic Modulus |
| 0.000 | 0.500 | L1 | 2X10 | 20X35 | 2.5X1.2 | 4X12 | 25 | 1.4 | | 4.23 | 7110 | 34 | 14 |
| 0.500 | 1.000 | L1 | 3X5 | 10X15 | 1.5X0.8 | 3X10 | 24 | 1.8 | | 2.68 | 7430 | 36 | 15 |
| 1.000 | 1.500 | L1 | | | | | | | | | | | |

Report of equipment based inspection needs be provided as an Annexure to monthly report as per the defined frequency. Following documents/media to be submitted for equipment based inspection.

- Video footage of all cameras installed on Network Survey Vehicle- ROW cameras and pavement camera

- Network Survey Vehicle report capturing dimensions of following key metrics ofpavement
    - Cracks
    - Potholes
    - Raveling
    - Bleeding
    - Rutting
    - Texture depth
    - Skid resistance
    - Roughness (IRI)
- Falling Weight Deflectometer (FWD) report capturing following key metrics of pavement strength
    - Deflection Bowl (Transient Deflections at seven different points)
    - Corrected Elastic Modulus Bituminous E1
    - Corrected Elastic Modulus Granular E2
    - Corrected Elastic Modulus Subgrade E3
    - Subgrade CBR
    - Bituminous layer coefficient A1
    - Base layer coefficient A2
    - Granular base layer coefficient A3
    - Modified structural number
- Mobile Bridge Inspection Report (MBIU) capturing following key metrics of bridges
    - Condition Approach
    - Condition Signs
    - Condition Debris
    - Condition Joint
    - Condition Deck
    - Condition Rails
    - Condition Protect
    - Condition Stream
    - Condition Superstructure
    - Condition Piers
    - Condition Abutment
- Retro reflectometer report capturing following key metrics of road furniture
    - Coefficient of retroreflected luminance $R_A$ (night time retroreflection) of road traffic signs

## 5 Monitoring of ETC lanes

### 5.1 Monthly ETC Report

| TYPE OF VEHICLE | | | For Corresponding month of previous year | | For Previous Month | | For Current Month | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | No of vehicles | Fee Collected | No of vehicles | Fee Collected | Fee per vehicle | No of vehicles | Fee Collected |
| A | Car | Total | 3845 | 384500 | 4659 | 465,900.00 | 100 | 4289 | 428,900.00 |
| B | LCV | Total | 1521 | 243360 | 1312 | 209,920.00 | 160 | 1399 | 223,840.00 |
| C | Bus | Total | 2404 | 793386 | 2284 | 765,207.00 | 201 | 2349 | 786,915.00 |
| D | Truck | Total | 1603 | 528924 | 1523 | 510,138.00 | 134 | 1566 | 524,610.00 |
| E | 3 Axle | Total | 18990 | 6836400 | 16310 | 5,953,150.00 | 365 | 15127 | 5,521,355.00 |
| F | MAV | Total | 16119 | 8381880 | 21111 | 11,188,830.00 | 530 | 18790 | 9,958,700.00 |
| G | Over Size | Total | 1 | 630 | 27 | 17,280.00 | 640 | 36 | 23,040.00 |
| | Total for the Month | | **49844** | **18,050,618** | **52963** | **19,898,834** | | **49016** | **18,265,661** |

### 5.2 On-ground infrastructure report

Total number of plaza lanes =
Total number of dedicated ETC lanes =Total number of hybrid lanes =

| SNo | Description | Total units | Units working | Units damaged / missing | Equipment owner/ provider | Equipment as per specifications (Y/N) | Remarks |
|---|---|---|---|---|---|---|---|
| **1** | **Hardware** | | | | | | |
| (a) | Over-head transceiver | 4 | 3 | 1 | ABC Co. | Y | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| (b) | Hand-held reader | | | | | | |
| (c ) | Lane controller | | | | | | |
| (d) | AVC | | | | | | |
| (e) | Camera | | | | | | |
| (f) | Weigh-in-motion | | | | | | |
| (g) | Static weigh bridge | | | | | | |
| (h) | Any other items | | | | | | |
| **2** | **Softwares** | | | | | | |
| (a) | Software – Lane/ Plaza level | | | | | | |
| (b) | TMS | | | | | | |
| (c) | Any other items | | | | | | |

### 5.3 On-ground ETC operations and SLA adherence

| Lane | Average queue length during peaktime | Average queue length during nonpeak time | Average Transaction time (cash) | Average transaction time (RFID) | Average transaction time (cards) | Average transaction time (wallet) | Average transction time (others) |
|---|---|---|---|---|---|---|---|
| Lane 1 | 10 vehicles | 5 vehicles | 15 seconds | 10 seconds | 20 seconds | 25 seconds | UPI – 20 seconds |
| Lane 2 | | | | | | | |
| Lane 3 | | | | | | | |

- Average system uptime = 80%
- Transactions uploaded (as per SLA) = 80%
- Blacklists uploaded (as per SLA) = 50%
- Blacklists downloaded (as per SLA) = 85%

# 6 Status of Damages for breach of maintenance activities

## 6.1 Damages for non completion of project facilities

| SNo | Period | Amount of damages (Rs) |
|---|---|---|
| 1 | Upto June 2016 | 15,00,35,000 |
| 2 | Jul 2016 | 2,00,88,000 |
| 3 | Aug 2016 | 2,00,88,000 |
| 4 | Sep 2016 | 1,94,40,000 |
| | **Total** | **20,96,51,000** |

*Supporting Calculations for damages for Sep 2016*

- No of days in Sep = 30
- Performance security is Rs 64,80,00,000
- As per CA Clause 12.3.2 damages payable is 0.1% of performance security per day = Rs 6,48,000
- Total damages payable = 30 X 6,48,000 = Rs 1,94,40,000

## 6.2 Damages for breach of maintenance activities

| SNo | Period | Amount of damages (Rs) |
|---|---|---|
| 1 | Upto June 2016 | 1,00,35,000 |
| 2 | Jul 2016 | 6.63,196 |
| 3 | Aug 2016 | 6,63,196 |
| 4 | Sep 2016 | 52,22,444 |
| | **Total** | **1,65,83,836** |

**Supporting Calculations for damages for reporting month**

| S No | Nature of defect | Unit | Total Quantity | Rate | Cost o repair as estimated | Damages as per CA | Damages at higher side | Date of inspection | No of days as per CA | Damages from | No of days damages | Damages amount |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

## 6.3 Damages for non completion of major maintenance/ periodic overlay

| SNo | Period | Amount of damages (Rs) |
|---|---|---|
| 1 | June 2016 | 6,48,000 |
| 2 | Jul 2016 | 2,00,88,000 |
| 3 | Aug 2016 | 2,00,88,000 |
| 4 | Sep 2016 | 1,94,40,000 |
| | **Total** | **6,02,64,000** |

*Supporting Calculations for damages for Sep 2016*

- No of days in Sep = 30
- Performance security is Rs 64,80,00,000
- As per CA Clause 12.3.2 damages payable is 0.1% of performance security per day = Rs 6,48,000
- Total damages payable = 30 X 6,48,000 = Rs 1,94,40,000

## 7 Change of Scope proposals

| SNo | Proposal Details | Date of first submission to AE | Current status | COS Amount | Expected / Actual date of approval |
|---|---|---|---|---|---|
| 1 | Construction of [Flyover Name]at [Chainage] | [DD/MM/YYYY] | Approved in principle by Authority. Detailed quantitSCs in proper order yet to be submitted | [+/-Amount] | [DD/MM/YYYY] |
| 2 | Nallah diversion through box culvert at [Chainage] | [DD/MM/YYYY] | Clarifications to be submitted by Concessionaire, expected date [DD/MM/YYYY] | [+/-Amount] | [DD/MM/YYYY] |

## 8 Status of pending disputes

| SNo | Dispute Details | Date of first submission toAE | Suggested resolution by AE | Dispute Amount (if applicable) | Current stage |
|---|---|---|---|---|---|
| 1 | Increased tollable length to be applicable in toll fee calculations | [DD/MM/YYYY] | No merit in increasing tollable length hence no action required by <Agency> | NA | SAROD |
| 2 | Filling stations energized without obtaining NOC from ministry | [DD/MM/YYYY] | <Agency>to consider the Concessionaire's request for intervention and assistance | [+/- Amount] | B/w Concessionaire and <Agency> |

## 9 Reports

### 9.1 Monthly Toll Collection Report (Applicable only if project highway is tolled)

| TYPE OF VEHICLE | For Corresponding month of previous year | | For Previous Month | | For Current Month | | |
|---|---|---|---|---|---|---|---|
| | No of vehicles | Fee Collected | No of vehicles | Fee Collected | Fee per vehicl | No of vehicles | Fee Collected |

| | | | | | | | e | | |
|---|---|---|---|---|---|---|---|---|---|
| A | Car | Single | 3845 | 384500 | 4659 | 465,900.00 | 100 | 4289 | 428,900.00 |
| | | Return | 1506 | 218370 | 1972 | 295,800.00 | 150 | 1758 | 263,700.00 |
| | | Local | 769 | 38450 | 979 | 48,950.00 | 50 | 1029 | 51,450.00 |
| B | LCV | Single | 1521 | 243360 | 1312 | 209,920.00 | 160 | 1399 | 223,840.00 |
| | | Return | 134 | 31490 | 162 | 38,880.00 | 240 | 132 | 31,680.00 |
| | | Local | 1683 | 134640 | 1838 | 147,040.00 | 80 | 1461 | 116,880.00 |
| C | Bus | Single | 2404 | 793386 | 2284 | 765,207.00 | 201 | 2349 | 786,915.00 |
| | | Return | 359 | 177903 | 173 | 87,567.00 | 303 | 203 | 102,717.00 |
| | | Local | 277 | 45738 | 205 | 34,782.00 | 102 | 318 | 54,060.00 |
| D | Truck | Single | 1603 | 528924 | 1523 | 510,138.00 | 134 | 1566 | 524,610.00 |
| | | Return | 240 | 118602 | 116 | 58,378.00 | 202 | 136 | 68,478.00 |
| | | Local | 185 | 30492 | 136 | 23,188.00 | 68 | 212 | 36,040.00 |
| E | 3 Axle | Single | 18990 | 6836400 | 16310 | 5,953,150.00 | 365 | 15127 | 5,521,355.00 |
| | | Return | 131 | 70740 | 34 | 18,700.00 | 550 | 37 | 20,350.00 |
| | | Local | 69 | 12420 | 84 | 15,540.00 | 185 | 131 | 24,235.00 |
| F | MAV | Single | 16119 | 8381880 | 21111 | 11,188,830.00 | 530 | 18790 | 9,958,700.00 |
| | | Return | 2 | 1550 | 20 | 15,800.00 | 790 | 35 | 27,650.00 |
| | | Local | 6 | 1560 | 18 | 4,770.00 | 265 | 8 | 2,120.00 |
| G | Over Size | Single | 1 | 630 | 27 | 17,280.00 | 640 | 36 | 23,040.00 |
| | | Return | | 0 | 0 | - | 965 | | - |
| | | Local | | 0 | 0 | - | 320 | | - |
| | Total for the Month | | 49844 | 18,050,618 | 52963 | 19,898,834 | | 49016 | 18,265,661 |

## 9.2 Accident Report

| S No | Date | Chainage no | Time of accident | Sex (M/F) | A | B | C | D | E | F | G | H | I | J | K | No of affected | | | Help provided by |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Accident location | Nature of accident | Classification of accident | Causes | Load conditions of vehicle | Road condition | Intersection type of control | Weather condition | Age of victim | Type of victim | Type of vehicle | Fatal | Majo | Mino | |
| 1 | 1/1/17 | 382/050 RHS | 05:25 pm | M | 2 | 2 | 3 | 4 | 1 | 1 | - | 1 | 3 | 1 | 3 | - | 1 | 1 | Ambu |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

### Mapping of report fields to responses

| | |
|---|---|
| A | 1. Urban 2. Rural |
| B | 1. Overturned 2. Head On Collision 3. Hit from Back 4. Hit to Fix Object 5. Right turn Collision 6. Left turn Collision 7. Veered Out off The Road 8. Hit Pedestrian 9. Unknown/Hit & Ran Away |
| C | 1. Fatal 2. Major injury 3. Minor injury |
| D | 1. Drunken 2. Over Speeding 3. Vehicle out of Control 4. Driven on wrong side 5. Mechanical Problem 6. Drowsiness/Not Applicable 7. Fault of Driver |
| E | 1. Normally Loaded 2. Overloaded/Handing 3. Empty 4. Unknown |
| F | 1. Straight road 2. Slight Curve 3. Sharp Curve 4. Hump 5. Dip |
| G | 1. T-Junction 2. Y-Junction 3. Four arm Junction 4. Staggered Junction 5. Junction with more than 6. Round about Junction |
| H | 1. Fine/Clear 2.Mist/Fog 3. Cloudy 4. Light Rain 5. Heavy Rain 6. Strong Wind 7. Dust Storm 8. Cold 9. Hot |
| I | 1. 0-18 Years 2. 18-25 Years 3. 25-40 Years 4.40-60 Years 5. 60-80 Years |
| J | 1. Driver 2. Passenger 3. Pedestrian 4. Cyclist 5. Others |
| K | 1. Two Wheeler 2. Auto Rickshaw 3. Car/Jeep 4. Bus 5. Light Truck 6. Heavy Truck 7. Tractor 8. Bicycle 9. Cycle Rickshaw 10. Hand Drawn Cart 11. Animal Drawn Cart |

## 9.3 Details of complaints

| SNo | Toll plaza | Complaint No | Date | Name of the person | Contact details of person | Details of complaint | Compliance by the concessionaire |
|---|---|---|---|---|---|---|---|
| 1 | | 81 | 8/9/2016 | Mr. Shailendra Gurjar, LIG-44,RSS mohalla, Shivaji Nagar, Bhopal (M.P.) | | Mr. Shailendra Complaints regarding Pot holes on the Highway may cause accidents. | Pot holes are repaired |
| 2 | | 82 | 10/9/2016 | Dr. Anil Diwakar, HIG Swarganga Complex Bus Stand Seoni (M.P.) | | Dr. Diwakar complaints that presence of Animals and also Pot holes on road are obstructing the driving which may cause accidents. | Animals are continuously driven out from the Road by the Highway Patrolling team and Pot holes are repaired. |
| 3 | | 83 | 11/9/2016 | Maj. Sidharth, 238 Fd wksp C/o- 56 APO | | Maj. Sidharth while travelling in personal car wants Exemption from Toll Fee on production of I.D. Card | The Exemption under Indian Toll (Army and Air force) Act 1901, to army personnel travelling in private vehicle may be given if on Govt. duty with requisite pass as specified in the Indian Toll (Army and Air Force Rules, 1942) |

## 9.4 ncroachment list

| SNo | Stretch Chainage (km) | Side (LHS/RHS) | District | Village | Encroachment type (Temporary/ Permanent) | Category (Tea stall, | Establishment (New/ existing) | Distance from road edge (m) | Encroachment width and length | Name of Encroacher |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 212+500 | LHS | Kurnool | Kurnool | Temporary | Tea stall | New | 7 | 5mX3.5m | Vijay Kumar Reddy |
| 2 | 213+200 | RHS | Kurnool | Dinnedevara Padu | Permanent | Godown | Existing | 5 | 10.5m X 4m | Buddana |

## 9.5 Lane Closure Report

| S.No | Date | Chainage (Km) | | Side | Time of Closure | Reasons for Lane Closure & Approval Details | Remarks |
|---|---|---|---|---|---|---|---|
| | | From | To | | | | |
| 1 | 9/9/2016 | 215+300 | 215+350 | RHS | 1pm-4pm | Patch work | |
| | | | | | | | |

## 10 Annexures

### Annexure 1: Detailed visual inspection report of project highway

**Assets to be covered-** Pavement, Shoulder, Drainage, Median, Bridges, Road furniture, Buildings, Horticulture, Service Road

| Sno | NCP/ SNo | Date of issue | Description ofdefect | Chainage | Side | AE Remarks |
|---|---|---|---|---|---|---|
| 1 | 311 | 15.08.2016 | Potholes | 311+200 | LHS | To be repaired |
| 2 | 312 | 15.08.2016 | Cracking | 311+500 | RHS | To be filled immediately |
| 3 | | | | | | |
| 4 | | | | | | |

### Annexure 2 onwards:

AE should include comments, status update, data points and reports in following annexures which have not been included elsewhere in the main report. Such reports may include but not limited to:

- Minutes of review meeting
- Correspondence details
- Weather report
- Organizational chart of Concessionaire and AE
- Project photographs

**Annexure VII-OUTPUT FORMAT FROM NETWORK SURVEY VEHICLE AND FWDTESTING**

[NAME & LOGO OF IMPLEMENTING AGENCY]

# [PROJECT NAME]

## Authority Engineer

[NAME OF CONSULTING FIRM]

**OUTPUT FROM NETWORK SURVEY VEHICLE AND FWD TESTING**

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## Annexure VII: OUTPUT FORMAT FROM NETWORK SURVEY VEHICLE AND FWDTESTING (SECTION 1: TESTING AT TIME OF COMPLETION, SECTION 2: FWD ATTRIBUTES - ANNUALLY, BALANCE PARAMETERS –BIANNUALLY AFTER CONSTRUCTION PHASE)

In addition to the reports being submitted on equipment based inspection as specified in Section 4.2 of the Monthly Progress Report in the O&M phase, the Authority Engineer (AE) shall submit electronically in excel (.xls) format certain key parameters to the Project Director in the following format.

Worksheets under Section 1 ('Road inventory data') shall be updated from surveys conducted only once at the time of completion testing. Worksheets under Section 2 ('Road condition data') shall be updated from surveys carried out annually for FWD attributes and biannually for the remaining attributes.

The fields to be updated in each of the worksheets are described below. Each description is followed by an example of data for a sample project.

*SECTION 1 - ROAD INVENTORY DATA*

Road inventory data consists of parameters which provide basic information about roads such as pavement type, number of lanes, topography, etc. These parameters are largely static in nature, and therefore a survey to update this dataset shall be conducted only once at the time of completion testing. The road inventory data shall be used to update specific worksheets listed below.

### *1.1 Location Reference Post (LRP) Master*

The following table lists the fields which need to be populated for the 'LRP Master' attribute. The descriptions of the fields are given below.

| Field | Description | Example |
|---|---|---|
| NH Number | New National Highway number | NH0065 |
| LRP Name | Name of location reference post (LRP) | Km stone 17 |
| Chainage | Chainage of the survey point (in km) | 17 |
| Direction | Direction of survey<br>• Increasing (chainage)<br>• Decreasing (chainage) | Increasing |
| Latitude | Latitude of survey point | 9.98897 |
| Longitude | Longitude of survey point | 78.02671 |
| Survey Date | Date of survey in the format <DD-MM-YY> | 06-05-17 |
| Old NH Number | Old National Highway number | NH0065 |
| Section Code | Code indicating starting and ending locations of section | HYD-VIJ (Hyderabad-Vijayawada) |

A sample output is shown below for reference

| NH Number | LRP Name | Chainage | Direction | Latitude | Longitude | Altitude | Survey Date | Old NH Number | Section Code |
|---|---|---|---|---|---|---|---|---|---|
| NH0xxx | Road Start | 1.230 | Increasing | 9.98897 | 78.02671 | 63.07767 | 23-12-15 | NH0yyy | ABC-DEF |
| NH0xxx | Km Stone 8 | 8.000 | Increasing | 9.98444 | 78.02934 | 68.60126 | 23-12-15 | NH0yyy | ABC-DEF |
| NH0xxx | Km Stone 8 | 8.030 | Increasing | 9.98341 | 78.03004 | 68.15520 | 23-12-15 | NH0yyy | ABC-DEF |
| NH0xxx | Km Stone | 9.008 | Increasing | 9.98107 | 78.03078 | 65.17153 | 23-12-15 | NH0yyy | ABC-DEF |
| NH0xxx | Km Stone | 12.012 | Increasing | 9.96328 | 78.04160 | 56.03436 | 23-12-15 | NH0yyy | ABC-DEF |
| NH0xxx | Km Stone 17 | 17.085 | Increasing | 9.95385 | 78.05255 | 56.24748 | 23-12-15 | NH0yyy | ABC-DEF |

## *1.2 Carriageway Type*

The following table lists the fields which need to be populated for the 'Carriageway Type' attribute. The descriptions of the fields are given below.

| Field | Description | Example |
|---|---|---|
| NH Number | New National Highway number | NH0065 |
| Section Code | Code indicating starting and ending locations of section | HYD-VIJ<br>(Hyderabad-Vijayawada) |
| Start Chainage | Chainage of the start point (in km) | 0.500 |
| End Chainage | Chainage of the end point (in km) | 1.500 |
| Carriageway Type | Type of carriageway, classified into one of the below categories:<br>• Divided<br>• Undivided | Divided |
| Survey Date | Date of survey in the format <DD-MM-YY> | 06-05-17 |
| Latitude | Latitude of survey point | 9.98897 |
| Longitude | Longitude of survey point | 78.02671 |

A sample output is shown below for reference

| NHNumber | Section | Start Chainage | End Chainage | Carriageway Type | Date of Survey | Latitude | Longitude |
|---|---|---|---|---|---|---|---|
| NH00xx | ABC-DEF | 0.000 | 0.794 | Undivided | 06-05-17 | 9.98897 | 78.02671 |
| NH00xx | ABC-DEF | 0.794 | 1.000 | Undivided | 06-05-17 | 9.98444 | 78.02934 |
| NH00xx | ABC-DEF | 1.000 | 2.810 | Undivided | 06-05-17 | 9.98341 | 78.03004 |
| NH00xx | ABC-DEF | 2.810 | 4.335 | Undivided | 06-05-17 | 9.98107 | 78.03078 |
| NH00xx | ABC-DEF | 4.335 | 6.666 | Undivided | 06-05-17 | 9.96328 | 78.04160 |
| NH00xx | ABC-DEF | 6.666 | 12.906 | Undivided | 06-05-17 | 9.95385 | 78.05255 |

### *1.3 Road Type*

The following table lists the fields which need to be populated for the 'Road Type' attribute. The descriptions of the fields are given below.

| Field | Description | Example |
|---|---|---|
| NH Number | New National Highway number | NH0065 |
| Section Code | Code indicating starting and ending locations of section | HYD-VIJ (Hyderabad-Vijayawada) |
| Start Chainage | Chainage of the start point (in km) | 0.500 |
| End Chainage | Chainage of the end point (in km) | 1.500 |
| Road Type | Classification of road on basis of number of lanes<br>• Single Lane<br>• Two Lane<br>• Intermediate Lane<br>• Four Lane<br>• Six Lane | Four Lane |
| Survey Date | Date of survey in the format <DD-MM-YY> | 06-05-17 |
| Latitude | Latitude of survey point | 9.98897 |
| Longitude | Longitude of survey point | 78.02671 |

A sample output is shown below for reference:

| NHNumber | Section | Start Chainage | End Chainage | RoadType | Date of Survey | Latitude | Longitude |
|---|---|---|---|---|---|---|---|
| NH00xx | ABC-DEF | 0.000 | 0.794 | Two Lane | 06-05-17 | 9.98897 | 78.02671 |
| NH00xx | ABC-DEF | 0.794 | 1.000 | Two Lane | 06-05-17 | 9.98444 | 78.02934 |
| NH00xx | ABC-DEF | 1.000 | 2.810 | Two Lane | 06-05-17 | 9.98341 | 78.03004 |
| NH00xx | ABC-DEF | 2.810 | 4.335 | Two Lane | 06-05-17 | 9.98107 | 78.03078 |
| NH00xx | ABC-DEF | 4.335 | 6.666 | Two Lane | 06-05-17 | 9.96328 | 78.04160 |
| NH00xx | ABC-DEF | 6.666 | 12.906 | Two Lane | 06-05-17 | 9.95385 | 78.05255 |

### *1.4 Pavement Type*

The following table lists the fields which need to be populated for the 'Pavement Type' attribute. The descriptions of the fields are given below.

| Field | Description | Example |
|---|---|---|
| NH Number | New National Highway number | NH0065 |
| Section Code | Code indicating starting and ending locations of section | HYD-VIJ (Hyderabad-Vijayawada) |
| Start Chainage | Chainage of the start point (in km) | 0.500 |
| End Chainage | Chainage of the end point (in km) | 1.500 |
| Direction | Direction of survey<br>• Increasing (chainage)<br>• Decreasing (chainage) | Increasing |
| Pavement Type | Classification of pavement based on type of surface: | Asphalt |

| Field | Description | Example |
|---|---|---|
| | • Asphalt<br>• Cement concrete | |
| Survey Date | Date of survey in the format <DD-MM-YY> | 06-05-17 |
| Latitude | Latitude of survey point | 9.98897 |
| Longitude | Longitude of survey point | 78.02671 |

A sample output is shown below for reference:

| NHNumber | Section | Start Chainage | End Chainage | Direction | Pavement Type | Date of Survey | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|
| NH00xx | ABC-DEF | 0.000 | 0.804 | Both | Asphalt | 06-05-17 | 9.98897 | 78.02671 |
| NH00xx | ABC-DEF | 0.804 | 1.000 | Both | Asphalt | 06-05-17 | 9.98444 | 78.02934 |
| NH00xx | ABC-DEF | 1.000 | 1.172 | Both | Asphalt | 06-05-17 | 9.98341 | 78.03004 |
| NH00xx | ABC-DEF | 1.172 | 2.821 | Both | Asphalt | 06-05-17 | 9.98107 | 78.03078 |
| NH00xx | ABC-DEF | 2.821 | 4.350 | Both | Asphalt | 06-05-17 | 9.96328 | 78.04160 |
| NH00xx | ABC-DEF | 4.350 | 6.710 | Both | Asphalt | 06-05-17 | 9.95385 | 78.05255 |
| NH00xx | ABC-DEF | 6.710 | 12.925 | Both | Asphalt | 06-05-17 | 9.93102 | 78.05648 |

### *1.5 Pavement Width*

The following table lists the fields which need to be populated for the 'Pavement Width' attribute. The descriptions of the fields are given below.

| Field | Description | Example |
|---|---|---|
| NH Number | New National Highway number | NH0065 |
| Section Code | Code indicating starting and ending locations of section | HYD-VIJ (Hyderabad-Vijayawada) |
| Start Chainage | Chainage of the start point (in km) | |

| | | |
|---|---|---|
| End Chainage | Chainage of the end point (in km) | 1.500 |
| Direction | Direction of survey<br>• Increasing (chainage)<br>• Decreasing (chainage) | Increasing |
| Pavement Width | Width of the pavement in metres, classified into one of the below categories<br>• >= 3.75m and < 5.5m<br>• >5.5m and < 7m<br>• >= 7m and < 10.5m<br>• >=10.5m and <=12.5m<br>• > 12.5m | >7m and <10.5m |
| Pavement Width Value | Width of the pavement in metres, rounded to two places after decimal | 7.0 |

| Field | Description | Example |
|---|---|---|
| Survey Date | Date of survey in the format <DD-MM-YY> | 06-05-17 |
| Latitude | Latitude of survey point | 9.98897 |
| Longitude | Longitude of survey point | 78.02671 |

A sample output is shown below for reference:

| NH Number | Section Code | Start Chainage | End Chainage | Direction | Pavement Width | Pavement Width Value | Survey Date | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|
| NH00xx | ABC-DEF | 0.000 | 0.794 | Both | 7 – 10.5 m | 7.00 | 06-05-17 | 9.98897 | 78.02671 |
| NH00xx | ABC-DEF | 0.794 | 1.000 | Both | 7 – 10.5 m | 7.00 | 06-05-17 | 9.98444 | 78.02934 |
| NH00xx | ABC-DEF | 1.000 | 2.810 | Both | 7 – 10.5 m | 7.00 | 06-05-17 | 9.98341 | 78.03004 |
| NH00xx | ABC-DEF | 2.810 | 4.335 | Both | 7 – 10.5 m | 7.00 | 06-05-17 | 9.98107 | 78.03078 |
| NH00xx | ABC-DEF | 4.335 | 6.666 | Both | 7 – 10.5 m | 7.00 | 06-05-17 | 9.96328 | 78.04160 |
| NH00xx | ABC-DEF | 6.666 | 12.906 | Both | 7 – 10.5 m | 7.00 | 06-05-17 | 9.95385 | 78.05255 |

### *1.6 Shoulder Type*

The following table lists the fields which need to be populated for the

'Shoulder Type' attribute. The descriptions of the fields are given below.

| Field | Description | Example |
|---|---|---|
| NH Number | New National Highway number | NH0065 |
| Section Code | Code indicating starting and ending locations of section | HYD-VIJ (Hyderabad-Vijayawada) |
| Start Chainage | Chainage of the start point (in km) | 0.500 |
| End Chainage | Chainage of the end point (in km) | 1.500 |
| Direction | Direction of survey<br>• Increasing (chainage)<br>• Decreasing (chainage) | Increasing |
| Shoulder Type | Type of shoulder, classified into one of the below categories:<br>• None<br>• Paved<br>• Gravel<br>• Earth | Gravel |
| Survey Date | Date of survey in the format <DD-MM-YY> | 06-05-17 |
| Latitude | Latitude of survey point | 9.98897 |
| Longitude | Longitude of survey point | 78.02671 |

A sample output is shown below for reference:

| NH Number | Section Code | Start Chainage | End Chainage | Direction | ShoulderType | Survey Date | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|
| NH00xx | ABC-DEF | 0.000 | 0.763 | Increasing | No Shoulder | 09-01-16 | 9.98897 | 78.02671 |
| NH00xx | ABC-DEF | 0.763 | 0.834 | Increasing | Gravel | 09-01-16 | 9.98444 | 78.02934 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NH00xx | ABC-DEF | 0.834 | 1.254 | Increasing | Gravel | 09-01-16 | 9.98341 | 78.03004 |
| NH00xx | ABC-DEF | 1.254 | 2.945 | Increasing | Gravel | 05-01-16 | 9.98107 | 78.03078 |
| NH00xx | ABC-DEF | 2.945 | 4.327 | Increasing | Gravel | 05-01-16 | 9.96328 | 78.04160 |
| NH00xx | ABC-DEF | 4.327 | 4.405 | Increasing | Gravel | 05-01-16 | 9.95385 | 78.05255 |
| NH00xx | ABC-DEF | 4.405 | 6.844 | Increasing | Gravel | 05-01-16 | 9.93102 | 78.05648 |
| NH00xx | ABC-DEF | 6.844 | 9.359 | Increasing | Gravel | 05-01-16 | 9.91229 | 78.04961 |
| NH00xx | ABC-DEF | 9.359 | 12.966 | Increasing | Gravel | 05-01-16 | 9.89041 | 78.03458 |

## *1.7 Shoulder Width*

The following table lists the fields for the 'Shoulder Width' attribute, which need to be populated. The descriptions of the fields are given below.

| Field | Description | Example |
|---|---|---|
| NH Number | New National Highway number | NH0065 |
| Section Code | Code indicating starting and ending locations of section | HYD-VIJ (Hyderabad-Vijayawada) |
| Start Chainage | Chainage of the start point (in km) | 0.500 |
| End Chainage | Chainage of the end point (in km) | 1.500 |
| Direction | Direction of survey<br>• Increasing (chainage)<br>• Decreasing (chainage) | Increasing |
| Shoulder Width | Width of the shoulder in metres, classified into one of the below categories<br>• No shoulder<br>• < 1m<br>• >= 1m and <= 2m<br>• > 2m | < 1m |
| Shoulder Width Value | Width of the shoulder in metres, rounded to one place after decimal | 0.5 |

| | | |
|---|---|---|
| Survey Date | Date of survey in the format <DD-MM-YY> | 06-05-17 |
| Latitude | Latitude of survey point | 9.98897 |
| Longitude | Longitude of survey point | 78.02671 |

A sample output is shown below for reference:

| NH Number | Section Code | Start Chainage | End Chainage | Direction | Shoulder Width | Shoulder Width Value | Survey Date | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|
| NH0xxx | ABC-DEF | 0.000 | 0.785 | Increasing | No Shoulder | 0.0 | 03-01-16 | 9.98897 | 78.02671 |
| NH0xxx | ABC-DEF | 0.785 | 2.612 | Increasing | No Shoulder | 0.0 | 03-01-16 | 9.98444 | 78.02934 |
| NH0xxx | ABC-DEF | 2.612 | 3.170 | Increasing | 1-2m | 2.0 | 03-01-16 | 9.98341 | 78.03004 |
| NH0xxx | ABC-DEF | 3.170 | 5.194 | Increasing | 1-2m | 2.0 | 03-01-16 | 9.98107 | 78.03078 |
| NH0xxx | ABC-DEF | 5.194 | 6.793 | Increasing | 1-2m | 2.0 | 03-01-16 | 9.96328 | 78.04160 |
| NH0xxx | ABC-DEF | 6.793 | 11.404 | Increasing | 1-2m | 2.0 | 03-01-16 | 9.95385 | 78.05255 |

### *1.8 Topography*

The following table lists the fields which need to be populated for the 'Topography' attribute. The descriptions of the fields are given below.

| Field | Description | Example |
|---|---|---|
| NH Number | New National Highway number | NH0065 |
| Section Code | Code indicating starting and ending locations of section | HYD-VIJ (Hyderabad-Vijayawada) |
| Start Chainage | Chainage of the start point (in km) | 0.500 |
| End Chainage | Chainage of the end point (in km) | 1.500 |
| Topography | Topography of the road, classified into one of the below categories<br>• Flat<br>• Rolling<br>• Hilly | Flat |

| | | |
|---|---|---|
| Survey Date | Date of survey in the format <DD-MM-YY> | 06-05-17 |
| Latitude | Latitude of survey point | 9.98897 |
| Longitude | Longitude of survey point | 78.02671 |

A sample output is shown below for reference:

| NH Number | Section Code | Start Chainage | End Chainage | Topography | Survey Date | Latitude | Longitude |
|---|---|---|---|---|---|---|---|
| NH0xxx | ABC-DEF | 0.000 | 0.808 | Flat | 05-01-16 | 9.98897 | 78.02671 |
| NH0xxx | ABC-DEF | 0.808 | 1.254 | Flat | 05-01-16 | 9.98444 | 78.02934 |
| NH0xxx | ABC-DEF | 1.254 | 2.828 | Flat | 05-01-16 | 9.98341 | 78.03004 |
| NH0xxx | ABC-DEF | 2.828 | 4.363 | Flat | 05-01-16 | 9.98107 | 78.03078 |
| NH0xxx | ABC-DEF | 4.363 | 6.724 | Flat | 05-01-16 | 9.96328 | 78.04160 |
| NH0xxx | ABC-DEF | 6.724 | 12.933 | Flat | 05-01-16 | 9.95385 | 78.05255 |

## 1.9 Cross Section

The following table lists the fields which need to be populated for the 'Cross Section' attribute. The descriptions of the fields are given below.

| Field | Description | Example |
|---|---|---|
| NH Number | New National Highway number | NH0065 |
| Section Code | Code indicating starting and ending locations of section | HYD-VIJ (Hyderabad-Vijayawada) |
| Start Chainage | Chainage of the start point (in km) | 0.500 |
| End Chainage | Chainage of the end point (in km) | 1.500 |
| Direction | Direction of survey<br>• Increasing (chainage)<br>• Decreasing (chainage) | Increasing |
| Cross Section | Cross section type, classified into one of the below categories | Fill |

| Field | Description | Example |
|---|---|---|
| | • Cut<br>• Fill<br>• Cut and Fill<br>• Level | |
| Survey Date | Date of survey in the format <DD-MM-YY> | 06-05-17 |
| Latitude | Latitude of survey point | 9.98897 |
| Longitude | Longitude of survey point | 78.02671 |

A sample output is shown below for reference:

| NH Number | Section Code | Start Chainage | End Chainage | Direction | Cross Section | Survey Date | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|
| NH0xxx | ABC-DEF | 0.000 | 0.822 | Increasing | Level | 03-01-16 | 9.98897 | 78.02671 |
| NH0xxx | ABC-DEF | 0.822 | 2.642 | Increasing | Level | 03-01-16 | 9.98444 | 78.02934 |
| NH0xxx | ABC-DEF | 2.642 | 3.199 | Increasing | Level | 03-01-16 | 9.98341 | 78.03004 |
| NH0xxx | ABC-DEF | 3.199 | 5.360 | Increasing | Level | 03-01-16 | 9.98107 | 78.03078 |
| NH0xxx | ABC-DEF | 5.360 | 5.715 | Increasing | Fill | 03-01-16 | 9.96328 | 78.04160 |
| NH0xxx | ABC-DEF | 5.715 | 6.941 | Increasing | Level | 03-01-16 | 9.95385 | 78.05255 |
| NH0xxx | ABC-DEF | 6.941 | 11.163 | Increasing | Level | 03-01-16 | 9.93102 | 78.05648 |

### *1.10 Drain Type*

The following table lists the fields which need to be populated for the 'Drain Type' attribute. The descriptions of the fields are given below.

| Field | Description | Example |
|---|---|---|
| NH Number | New National Highway number | NH0065 |
| Section Code | Code indicating starting and ending locations of section | HYD-VIJ (Hyderabad-Vijayawada) |
| Start Chainage | Chainage of the start point (in km) | 0.500 |
| End Chainage | Chainage of the end point (in km) | 1.500 |

| | | |
|---|---|---|
| Direction | Direction of survey<br>• Increasing (chainage)<br>• Decreasing (chainage) | Increasing |
| Drain Type | Type of drain, classified into one of the below categories<br>• Open unlined drain<br>• Open lined drain<br>• Covered line drain<br>• No drain | Open lined drain |
| Survey Date | Date of survey in the format <DD-MM-YY> | 06-05-17 |
| Latitude | Latitude of survey point | 9.98897 |
| Longitude | Longitude of survey point | 78.02671 |

A sample output is shown below for reference:

| NH Number | Section Code | Start Chainage | End Chainage | Direction | Drain Type | Survey Date | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|
| NH0xxx | ABC-DEF | 0.000 | 0.069 | Increasing | Open Unlined Drain | 09-01-16 | 9.98897 | 78.02671 |
| NH0xxx | ABC-DEF | 0.069 | 0.782 | Increasing | Open Lined Drain | 09-01-16 | 9.98444 | 78.02934 |
| NH0xxx | ABC-DEF | 0.288 | 0.000 | Decreasing | Open Unlined Drain | 09-01-16 | 9.98341 | 78.03004 |
| NH0xxx | ABC-DEF | 0.782 | 0.846 | Increasing | Open Unlined Drain | 09-01-16 | 9.98107 | 78.03078 |
| NH0xxx | ABC-DEF | 0.846 | 1.254 | Increasing | Open Unlined Drain | 09-01-16 | 9.96328 | 78.04160 |
| NH0xxx | ABC-DEF | 1.254 | 2.265 | Increasing | Open Unlined Drain | 05-01-16 | 9.95385 | 78.05255 |
| NH0xxx | ABC-DEF | 1.929 | 0.288 | Decreasing | Open Unlined Drain | 09-01-16 | 9.93102 | 78.05648 |
| NH0xxx | ABC-DEF | 1.952 | 1.929 | Decreasing | No Drain | 09-01-16 | 9.91229 | 78.04961 |
| NH0xxx | ABC-DEF | 2.265 | 3.005 | Increasing | Open Unlined Drain | 05-01-16 | 9.89041 | 78.03458 |
| NH0xxx | ABC-DEF | 2.680 | 1.952 | Decreasing | Open Unlined Drain | 09-01-16 | 9.88489 | 78.02995 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NH0xxx | ABC-DEF | 3.005 | 4.424 | Increasing | Open Unlined Drain | 05-01-16 | 9.87474 | 78.02828 |
| NH0xxx | ABC-DEF | 3.109 | 2.680 | Decreasing | Open Unlined Drain | 09-01-16 | 9.87363 | 78.02744 |
| NH0xxx | ABC-DEF | 3.320 | 3.109 | Decreasing | Covered Line Drain | 09-01-16 | 9.84857 | 78.01535 |
| NH0xxx | ABC-DEF | 3.917 | 3.320 | Decreasing | Open Unlined Drain | 09-01-16 | 9.83764 | 78.00392 |
| NH0xxx | ABC-DEF | 4.424 | 4.601 | Increasing | Open Unlined Drain | 05-01-16 | 9.83711 | 77.98576 |
| NH0xxx | ABC-DEF | 4.601 | 5.693 | Increasing | Open Unlined Drain | 05-01-16 | 9.83386 | 77.97729 |

## *1.11 Median Opening*

The following table lists the fields which need to be populated for the 'Median Opening' attribute. The descriptions of the fields are given below.

| Field | Description | Example |
|---|---|---|
| NH Number | New National Highway number | NH0065 |
| Section Code | Code indicating starting and ending locations of section | HYD-VIJ (Hyderabad-Vijayawada) |
| Start Chainage | Chainage of the start point (in km) | 0.500 |
| End Chainage | Chainage of the end point (in km) | 1.500 |
| Direction | Direction of survey<br>• Increasing (chainage)<br>• Decreasing (chainage) | Increasing |
| Median Type | Type of median, classified into one of the below categories<br>• Raised;<br>• Depressed;<br>• Barrier;<br>• None. | Raised |

| Field | Description | Example |
|---|---|---|
| Median Width | Width of the median in metres, rounded to one place after decimal | 0.5 |
| Survey Date | Date of survey in the format <DD-MM-YY> | 06-05-17 |
| Latitude | Latitude of survey point | 9.98897 |
| Longitude | Longitude of survey point | 78.02671 |

A sample output is shown below for reference:

| NH Number | Section Code | Start Chainage | End Chainage | Direction | Median Type | Median Width | Survey Date | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|
| NH00xx | ABC-DEF | 0.000 | 0.794 | Both | Raised | 0.5 | 05-01-16 | 9.98897 | 78.02671 |
| NH00xx | ABC-DEF | 0.794 | 1.000 | Both | Raised | 0.5 | 05-01-16 | 9.98444 | 78.02934 |
| NH00xx | ABC-DEF | 1.000 | 2.810 | Both | No Median | 0.0 | 05-01-16 | 9.98341 | 78.03004 |
| NH00xx | ABC-DEF | 2.810 | 4.335 | Both | Raised | 1.5 | 05-01-16 | 9.98107 | 78.03078 |
| NH00xx | ABC-DEF | 4.335 | 6.666 | Both | No Median | 0.0 | 05-01-16 | 9.96328 | 78.04160 |
| NH00xx | ABC-DEF | 6.666 | 12.906 | Both | No Median | 0.0 | 05-01-16 | 9.95385 | 78.05255 |

### *1.12 Right Of Way*

The following table lists the fields which need to be populated for the 'Right of Way' attribute. The descriptions of the fields are given below.

| Field | Description | Example |
|---|---|---|
| NH Number | New National Highway number | NH0065 |
| Section Code | Code indicating starting and ending locations of section | HYD-VIJ (Hyderabad-Vijayawada) |
| Start Chainage | Chainage of the start point (in km) | 0.500 |
| End Chainage | Chainage of the end point (in km) | 1.500 |
| Direction | Direction of survey<br>• Increasing (chainage)<br>• Decreasing (chainage) | Increasing |

| | | |
|---|---|---|
| Row Width | Width of Right of Way (in metres) | 24 |
| Remarks | | |
| Survey Date | Date of survey in the format <DD-MM-YY> | 06-05-17 |
| Latitude | Latitude of survey point | 9.98897 |
| Longitude | Longitude of survey point | 78.02671 |

A sample output is shown below for reference:

| NH Number | Section Code | Start Chainage | End Chainage | Direction | ROW Width | Remarks | Survey Date | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|
| NH0xxx | ABC-DEF | 0.000 | 1.000 | Increasing | 28 | | 05-05-15 | 9.98897 | 78.02671 |
| NH0xxx | ABC-DEF | 1.000 | 2.000 | Increasing | 24 | | 05-05-15 | 9.98444 | 78.02934 |
| NH0xxx | ABC-DEF | 2.000 | 3.000 | Increasing | 30 | | 05-05-15 | 9.98341 | 78.03004 |
| NH0xxx | ABC-DEF | 3.000 | 4.000 | Increasing | 26 | | 05-05-15 | 9.98107 | 78.03078 |
| NH0xxx | ABC-DEF | 4.000 | 11.000 | Increasing | 24 | | 05-05-15 | 9.96328 | 78.04160 |

## 1.13 Pavement composition

The following table lists the fields which need to be populated for the 'Pavement composition' attribute. The descriptions of the fields are given below.

| Field | Description | Example |
|---|---|---|
| NH Number | New National Highway number | NH0065 |
| Section Code | Code indicating starting and ending locations of section | HYD-VIJ (Hyderabad-Vijayawada) |
| Start Chainage | Chainage of the start point (in km) | 0.500 |
| End Chainage | Chainage of the end point (in km) | 1.500 |
| Direction | Direction of survey<br>• Increasing (chainage)<br>• Decreasing (chainage) | Increasing |
| Pavement Type | Type of pavement<br>• Asphalt<br>• Cement concrete | Asphalt |
| Bituminous Surface Course Type | Type of bituminous surface course | BC |
| Bituminous Surface | Thickness of BSC layer in mm | 40 |

| | | |
|---|---|---|
| Course Thickness MM | | |
| BSC Construction Year | Year of construction of BSC layer in flexible pavements | 2015 |
| Bituminous Base Course Type | Type of bituminous base course | DBM |
| Bituminous Base Course Thick—ness | Thickness of BBC layer in mm | 100 |
| BBC Construction Year | Year of construction of BBC layer in flexible pavements | 2015 |
| Granular Base Type | Type of granular base | WMM |
| Granular Base Thick-ness | Thickness of GB layer in mm | 250 |
| GB Construction Year | Year of construction of GB layer in flexible pavements | 2015 |
| Pavement Quality Concrete Type | Type of pavement quality concrete | PQC |
| Pavement Quality Concrete Thickness | Thickness of PQC layer in mm | 300 |
| PQC Construction Year | Year of construction of PQC layer in rigid pavements | 2015 |
| Dry Lean Concrete Thickness MM | Thickness of DLC layer in mm | 100 |
| Dry Lean Concrete Type | Type of dry lean concrete | DLC |
| DLC Construction Year | Year of construction of DLC layer in rigid pavements | 2015 |
| Granular Sub Base Type | Type of granular sub base | GSB |
| Granular Sub Base Thickness | Thickness of GSB layer in mm | 200 |
| GSB Construction Year | Year of construction of GSB layer | 2014 |
| Design CBR | Design CBR of the subgrade, expressed in % | 5% |
| Survey Date | Date of survey in the format <DD-MM-YY> | 06-05-17 |
| Latitude | Latitude of survey point | 9.98897 |

| Field | Description | Example |
|---|---|---|
| Longitude | Longitude of survey point | 78.02671 |

A sample output is shown below for reference:

| NH No. | Section Code | Start Chainage | End Chainage | Direction | Pavement Type | Bituminous Surface Course Type | Bituminous Surface Course Thickness | BSC Construction Year | Bituminous Base Course Type | Bituminous Base Course Thickness | BBC Construction Year | Granular Base Type | GranularBase Thickness |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NH00xx | ABC-DEF | 0.0 | 5.0 | Both side | Asphalt | BC | 40.0 | 2015 | DBM | 100 | 2015 | WMM | 250 |
| NH00xx | ABC-DEF | 5.0 | 11.0 | Both Side | Asphalt | BC | 40.0 | 2015 | DBM | 80 | 2015 | WMM | 250 |
| NH00xx | ABC-DEF | 11.0 | 20.0 | Both side | Asphalt | SDBC | 25.0 | 2015 | BM | 115 | 2015 | WMM | 250 |
| NH00xx | ABC-DEF | 20.0 | 22.0 | Both Side | Asphalt | BC | 40.0 | 2015 | DBM | 100 | 2015 | WMM | 250 |
| NH00xx | ABC-DEF | 22.0 | 30.0 | Both side | Asphalt | SDBC | 25.0 | 2015 | BM | 115 | 2015 | WMM | 250 |
| NH00xx | ABC-DEF | 30.0 | 31.0 | Both side | Asphalt | BC | 40.0 | 2015 | DBM | 100 | 2015 | WMM | 250 |

**(table continued...)**

| GB Construction Year | Pavement Quality Concrete Type | Pavement Quality Concrete Thickness | PQC Construction Year | Dry Lean Concrete Thickness | Dry Lean Concrete Type | DLC Construction Year | Granular SubBase Type | Granular SubBase Thickness | GSB Construction Year | Design CBR | Survey Date | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2015 | NA | NA | NA | NA | NA | NA | GSB | 300 | 2015 | 5% | 05-05-15 | 9.99 | 78.03 |
| 2015 | NA | NA | NA | NA | NA | NA | GSB | 300 | 2015 | 5% | 05-05-15 | 9.98 | 78.03 |
| 2015 | NA | NA | NA | NA | NA | NA | GSB | 300 | 2015 | 5% | 05-05-15 | 9.98 | 78.03 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2015 | NA | NA | NA | NA | NA | NA | GSB | 300 | 2015 | 5% | 05-05-15 | 9.98 | 78.03 |
| 2015 | NA | NA | NA | NA | NA | NA | GSB | 300 | 2015 | 5% | 05-05-15 | 9.96 | 78.04 |
| 2015 | NA | NA | NA | NA | NA | NA | GSB | 300 | 2015 | 5% | 05-05-15 | 9.95 | 78.05 |

### *1.14 Carriageway Furniture*

The following table lists the fields which need to be populated for the 'Carriageway Furniture' attribute. The descriptions of the fields are given below.

| Field | Description | Example |
|---|---|---|
| NH Number | New National Highway number | NH0065 |
| Section Code | Code indicating starting and ending locations of section | HYD-VIJ (Hyderabad-Vijayawada) |
| Chainage | Chainage of the point (in km) | 0.500 |
| Direction | Direction of survey<br>• Increasing (chainage)<br>• Decreasing (chainage) | Increasing |

| Field | Description | Example |
|---|---|---|
| Wayside Amenity Type | Wayside amenities classified into one of the below categories:<br>• Crash barriers<br>• Signs<br>• Street Lights<br>• Km stone | Road sign |
| Survey Date | Date of survey in the format <DD-MM-YY> | 06-05-17 |
| Latitude | Latitude of survey point | 9.98897 |
| Longitude | Longitude of survey point | 78.02671 |

A sample output is shown below for reference:

| NHNumber | SectionCode | Chainage | Direction | EventType | SurveyDate | Latitude | Longitude |
|---|---|---|---|---|---|---|---|
| NH00xx | ABC-DEF | 0.012 | Increasing | Street Light Start | 03-01-16 | 9.98897 | 78.02671 |
| NH00xx | ABC-DEF | 0.287 | Increasing | Street Light End | 03-01-16 | 9.98444 | 78.02934 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| NH00xx | ABC-DEF | 2.491 | Decreasing | Road Sign | 03-01-16 | 9.98341 | 78.03004 |
| NH00xx | ABC-DEF | 2.708 | Decreasing | Road Sign | 03-01-16 | 9.98107 | 78.03078 |
| NH00xx | ABC-DEF | 3.496 | Increasing | Road Sign | 03-01-16 | 9.96328 | 78.04160 |
| NH00xx | ABC-DEF | 5.160 | Increasing | Road Sign | 03-01-16 | 9.95385 | 78.05255 |
| NH00xx | ABC-DEF | 5.356 | Decreasing | Road Sign | 03-01-16 | 9.93102 | 78.05648 |
| NH00xx | ABC-DEF | 8.402 | Decreasing | Road Sign | 03-01-16 | 9.91229 | 78.04961 |
| NH00xx | ABC-DEF | 10.966 | Decreasing | Road Sign | 03-01-16 | 9.89041 | 78.03458 |

### *1.15 Wayside Amenities*

The following table lists the fields which need to be populated for the 'Wayside Amenities' attribute. The descriptions of the fields are given below.

| Field | Description | Example |
|---|---|---|
| NH Number | New National Highway number | NH0065 |
| Section Code | Code indicating starting and ending locations of section | HYD-VIJ (Hyderabad-Vijayawada) |
| Chainage | Chainage of the point (in km) | 0.500 |
| Direction | Direction of survey<br>• Increasing (chainage)<br>• Decreasing (chainage) | Increasing |
| | Wayside amenities classified into one of the below categories:<br>• Bus shelter; | Restaurant/Motel |

| Field | Description | Example |
|---|---|---|
| | • Telephone booth;<br>• Petrol pump/minor repair shop (optional);<br>• Police Station;<br>• Temple /Mosque;<br>• Bridges. | |
| Survey Date | Date of survey in the format <DD-MM-YY> | 06-05-17 |
| Data Source | | |
| Remarks | | |
| Latitude | Latitude of survey point | 9.98897 |
| Longitude | Longitude of survey point | 78.02671 |

A sample output is shown below for reference:

| NH Number | Section Code | Chainage | Direction | Wayside Amenity | Survey Date | Data Source | Remarks | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|
| NH00xx | ABC-DEF | 0.650 | Increasing | Restaurant/Motel | 05-01-16 | | | 9.98897 | 78.02671 |
| NH00xx | ABC-DEF | 1.998 | Increasing | Restaurant/Motel | 05-01-16 | | | 9.98444 | 78.02934 |
| NH00xx | ABC-DEF | 5.524 | Increasing | Petrol Pump | 05-01-16 | | | 9.98341 | 78.03004 |
| NH00xx | ABC-DEF | 11.413 | Increasing | Restaurant/Motel | 05-01-16 | | | 9.98107 | 78.03078 |

### *1.16 Land Use*

The following table lists the fields which need to be populated for the 'Land Use' attribute. The descriptions of the fields are given below.

| Field | Description | Example |
|---|---|---|
| NH Number | New National Highway number | NH0065 |
| Section Code | Code indicating starting and ending locations of section | HYD-VIJ (Hyderabad-Vijayawada) |
| Start Chainage | Chainage of the start point (in km) | 0.500 |

| | | |
|---|---|---|
| End Chainage | Chainage of the end point (in km) | 1.500 |
| Direction | Direction of survey<br>• Increasing (chainage)<br>• Decreasing (chainage) | Increasing |
| Land Use | Land use classified into one of the below categories:<br>• Residential;<br>• Commercial;<br>• Industrial;<br>• Agricultural;<br>• Water bodies;<br>• Mixed. | Commercial |
| Survey Date | Date of survey in the format <DD-MM-YY> | 06-05-17 |
| Latitude | Latitude of survey point | 9.98897 |

| Field | Description | Example |
|---|---|---|
| Longitude | Longitude of survey point | 78.02671 |

A sample output is shown below for reference:

| NHNumber | SectionCode | StartChainage | EndChainage | Direction | LandUse | SurveyDate | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|
| NH00xx | ABC-DEF | 0.000 | 0.797 | Increasing | Mixed | 03-01-16 | 9.98897 | 78.02671 |
| NH00xx | ABC-DEF | 0.511 | 0 | Decreasing | Mixed | 03-01-16 | 9.98444 | 78.02934 |
| NH00xx | ABC-DEF | 0.797 | 2.699 | Increasing | Mixed | 03-01-16 | 9.98341 | 78.03004 |
| NH00xx | ABC-DEF | 0.835 | 0.511 | Decreasing | Mixed | 03-01-16 | 9.98107 | 78.03078 |
| NH00xx | ABC-DEF | 0.987 | 0.835 | Decreasing | Mixed | 03-01-16 | 9.96328 | 78.04160 |
| NH00xx | ABC-DEF | 1.641 | 0.987 | Decreasing | Agriculture | 03-01-16 | 9.95385 | 78.05255 |
| NH00xx | ABC-DEF | 2.081 | 1.641 | Decreasing | Barren Land | 03-01-16 | 9.93102 | 78.05648 |
| NH00xx | ABC-DEF | 2.378 | 2.081 | Decreasing | Agriculture | 03-01-16 | 9.91229 | 78.04961 |
| NH00xx | ABC-DEF | 2.458 | 2.378 | Decreasing | Agriculture | 03-01-16 | 9.89041 | 78.03458 |
| NH00xx | ABC-DEF | 2.699 | 3.234 | Increasing | Agriculture | 03-01-16 | 9.88489 | 78.02995 |

## SECTION 2 - ROAD CONDITION DATA

Road condition data consists of parameters which directly affect maintenance requirements of the road. These parameters are dynamic in nature, and therefore a survey to update this dataset shall be conducted annually for FWD testing and every six months as per Annexure IV for network survey vehicle testing. The first survey shall be conducted at the time of completion testing and the remaining surveys shall be conducted as per the defined frequency.

As an example, if majority of highway length (>50%) passes through a state, where defined survey months are May and November, if completion testing is conducted in April, then the first network survey shall be conducted in the month of April. This shall be considered as the network survey to be conducted in the month of May. The 2nd survey shall be conducted in the month of November, the 3rd survey shall be conducted in the month of May and so on. As regards FWD, the first test/survey shall be conducted at the time of completion in April. The 2nd test/survey shall be conducted in April of next year and so on.

The road condition data shall be used to update specific worksheets, which are listed below.

### 2.1 Visual condition

The following table lists the fields which need to be populated for the 'Visual Condition' attribute. The descriptions of the fields are given below.

| Field | Description | Example |
|---|---|---|
| NH Number | New National Highway number | NH0065 |

| Field | Description | Example |
|---|---|---|
| Section Code | Code indicating starting and ending locations of section | HYD-VIJ (Hyderabad-Vijayawada) |
| Start Chainage | Chainage of the start point (in km) | 0.500 |
| End Chainage | Chainage of the end point (in km) | 1.500 |
| Direction | Direction of survey<br>• Increasing (chainage)<br>• Decreasing (chainage) | Increasing |
| Lane Number | Number of the lane: L1, L2, R1, R2, etc., L1 being 1st lane on the left from centre line of carriageway, L2 being<br>2nd lane on the left from centerline and so on | L1 |

| | | |
|---|---|---|
| Ravelling | Percent of pavement area affected by ravelling, which is converted to the following rating scale:<br>• 1 - Very Poor (> 30%)<br>• 2 - Poor (11-30%)<br>• 3 - Fair (6-10%)<br>• 4 - Good (1-5%)<br>• 5 - Very Good (0%) | 2 |
| Pot Holes | No. of potholes, which is converted to the following rating scale:<br>• 1 - Very Poor (> 5)<br>• 2 - Poor (3-5)<br>• 3 - Fair (2)<br>• 4 - Good (1)<br>• 5 - Very Good (0) | 1 |
| Edge Break | Pavement area containing edge breaks, which is converted to the following rating scale:<br>• 1 - Very Poor (> 5$m^2$)<br>• 2 - Poor (1-5$m^2$)<br>• 3 - Fair (0.5-1$m^2$)<br>• 4 - Good (0-0.5$m^2$)<br>• 5 - Very Good (0$m^2$) | 3 |
| Cracking | Percent of pavement area affected by cracking, which is converted to the following rating scale:<br>• 1 - Very Poor (> 30%)<br>• 2 - Poor (21-30%)<br>• 3 - Fair (11-20%)<br>• 4 - Good (5-10%)<br>• 5 - Very Good (<5%) | 3 |
| Disintegration | Percent of pavement area affected by disintegration, which is converted to the following rating scale:<br>• 1 - Very Poor (> 50%)<br>• 2 - Poor (20-50%)<br>• 3 - Fair (10-20%)<br>• 4 - Good (1-10%)<br>• 5 - Very Good (<1%) | 2 |

| Field | Description | Example |
|---|---|---|
| Depression | Percent of pavement area affected by depression, which is converted to the following rating scale:<br>• 1 - Very Poor (> 5%)<br>• 2 - Poor (3-5%)<br>• 3 - Fair (1-2%)<br>• 4 - Good (0-1%)<br>• 5 - Very Good (0) | 5 |
| Bleeding | Percent of pavement area affected by bleeding, which is converted to the following rating scale:<br>• 1 - Very Poor (> 50%)<br>• 2 - Poor (20-50%)<br>• 3 - Fair (10-20%)<br>• 4 - Good (1-10%)<br>• 5 - Very Good (<1%) | 3 |
| Patching | Percent of pavement area affected by patching, which is converted to the following rating scale:<br>• 1 - Very Poor (> 30%)<br>• 2 - Poor (16-30%)<br>• 3 - Fair (6-15%)<br>• 4 - Good (2-5%)<br>• 5 - Very Good (<2%) | 4 |
| Drain Condition | Condition of the drain, which is converted to thefollowing rating scale:<br>• 1 - Poor<br>• 2 - Fair<br>• 3 - Good | 2 |
| Shoulder Condition | Condition of the shoulder, which is converted to the following rating scale:<br>• 1 - Poor<br>• 2 - Fair<br>• 3 - Good | Fair |

| | | |
|---|---|---|
| Survey Date | Date of survey in the format <DD-MM-YY> | 06-05-17 |
| Latitude | Latitude of survey point | 9.98897 |
| Longitude | Longitude of survey point | 78.02671 |

A sample output is shown below for reference:

| NHNumber | Section | Start Chainage | End Chainage | Direction | Lane Number | Ravelling | PotHoles | EdgeBreak | Cracking |
|---|---|---|---|---|---|---|---|---|---|
| NH00xx | ABC-DEF | 0.000 | 0.500 | Increasing | L1 | 4 | 4 | 4 | 4 |
| NH00xx | ABC-DEF | 0.500 | 1.000 | Increasing | L1 | 4 | 4 | 4 | 5 |
| NH00xx | ABC-DEF | 1.000 | 1.500 | Increasing | L1 | 5 | 5 | 4 | 5 |
| NH00xx | ABC-DEF | 1.500 | 2.000 | Increasing | L1 | 5 | 5 | 5 | 5 |
| NH00xx | ABC-DEF | 2.000 | 2.500 | Increasing | L1 | 5 | 5 | 5 | 5 |
| NH00xx | ABC-DEF | 2.500 | 3.000 | Increasing | L1 | 5 | 5 | 4 | 5 |
| NH00xx | ABC-DEF | 3.000 | 3.500 | Increasing | L1 | 5 | 5 | 4 | 5 |
| NH00xx | ABC-DEF | 3.500 | 4.000 | Increasing | L1 | 5 | 4 | 3 | 5 |

| NHNumber | Section | Start Chainage | End Chainage | Direction | Lane Number | Ravelling | PotHoles | EdgeBreak | Cracking |
|---|---|---|---|---|---|---|---|---|---|
| NH00xx | ABC-DEF | 4.000 | 4.500 | Increasing | L1 | 4 | 4 | 4 | 5 |
| NH00xx | ABC-DEF | 4.500 | 5.000 | Increasing | L1 | 5 | 5 | 4 | 5 |
| NH00xx | ABC-DEF | 5.000 | 5.500 | Increasing | L1 | 5 | 5 | 4 | 5 |
| NH00xx | ABC-DEF | 5.500 | 6.000 | Increasing | L1 | 5 | 5 | 4 | 5 |
| NH00xx | ABC-DEF | 6.000 | 6.500 | Increasing | L1 | 5 | 5 | 4 | 5 |
| NH00xx | ABC-DEF | 6.500 | 7.000 | Increasing | L1 | 5 | 5 | 4 | 5 |
| NH00xx | ABC-DEF | 7.000 | 7.500 | Increasing | L1 | 5 | 5 | 5 | 5 |
| NH00xx | ABC-DEF | 7.500 | 8.000 | Increasing | L1 | 5 | 5 | 4 | 5 |
| NH00xx | ABC-DEF | 8.000 | 8.500 | Increasing | L1 | 5 | 5 | 4 | 5 |
| NH00xx | ABC-DEF | 8.500 | 9.000 | Increasing | L1 | 5 | 5 | 4 | 5 |
| NH00xx | ABC-DEF | 9.000 | 9.500 | Increasing | L1 | 5 | 5 | 4 | 5 |
| NH00xx | ABC-DEF | 9.500 | 10.000 | Increasing | L1 | 5 | 5 | 3 | 5 |

**(table continued...)**

| Disintegration | Depression | Bleeding | Patching | Drain Condition | ShoulderCondition | Date of Survey | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|
| 4 | 4 | 4 | 4 | 2 | 2 | 06-05-17 | 9.98897 | 78.02671 |
| 4 | 4 | 4 | 4 | 2 | 2 | 06-05-17 | 9.98444 | 78.02934 |
| 5 | 5 | 5 | 4 | 2 | 2 | 06-05-17 | 9.98341 | 78.03004 |
| 5 | 5 | 5 | 5 | 2 | 2 | 06-05-17 | 9.98107 | 78.03078 |
| 5 | 5 | 5 | 5 | 2 | 2 | 06-05-17 | 9.96328 | 78.04160 |
| 5 | 5 | 5 | 5 | 2 | 2 | 06-05-17 | 9.95385 | 78.05255 |
| 5 | 5 | 5 | 5 | 2 | 3 | 06-05-17 | 9.93102 | 78.05648 |
| 4 | 4 | 4 | 4 | 2 | 3 | 06-05-17 | 9.91229 | 78.04961 |
| 4 | 4 | 4 | 4 | 2 | 2 | 06-05-17 | 9.89041 | 78.03458 |
| 5 | 5 | 5 | 5 | 2 | 2 | 06-05-17 | 9.88489 | 78.02995 |
| 5 | 5 | 5 | 5 | 2 | 2 | 06-05-17 | 9.87474 | 78.02828 |
| 5 | 5 | 5 | 5 | 2 | 2 | 06-05-17 | 9.87363 | 78.02744 |
| 5 | 5 | 5 | 5 | 2 | 2 | 06-05-17 | 9.84857 | 78.01535 |
| 5 | 5 | 5 | 5 | 2 | 2 | 06-05-17 | 9.83764 | 78.00392 |
| 5 | 5 | 5 | 5 | 2 | 2 | 06-05-17 | 9.83711 | 77.98576 |
| 5 | 5 | 5 | 5 | 1 | 2 | 06-05-17 | 9.83386 | 77.97729 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 5 | 5 | 5 | 5 | 2 | 2 | 06-05-17 | 9.81804 | 77.97875 |
| 5 | 5 | 5 | 5 | 2 | 2 | 06-05-17 | 9.77426 | 77.98129 |
| 5 | 4 | 4 | 4 | 2 | 2 | 06-05-17 | 9.73071 | 77.97999 |
| 5 | 5 | 5 | 3 | 2 | 2 | 06-05-17 | 9.68686 | 77.97017 |

## 2.2 *Roughness*

The following table lists the fields which need to be populated for the 'Roughness' attribute. The descriptions of the fields are given below.

| Field | Description | Example |
|---|---|---|
| NH Number | New National Highway number | NH0065 |
| Section Code | Code indicating starting and ending locations of section | HYD-VIJ (Hyderabad-Vijayawada) |

| Field | Description | Example |
|---|---|---|
| Start Chainage | Chainage of the start point (in km) | 0.500 |
| End Chainage | Chainage of the end point (in km) | 1.500 |
| Direction | Direction of survey<br>• Increasing (chainage)<br>• Decreasing (chainage) | Increasing |
| LwpIri | International roughness index (IRI) of left wheel path measured from laser profilometer | 2.33 |
| RwpIri | International roughness index (IRI) of right wheel path measured from laser profilometer | 1.97 |
| LaneIri | Average of the International roughness index (IRI) of left and right wheel paths | 2.15 |
| Speed | Speed of vehicle in km/h | 42 |
| Survey Date | Date of survey in the format <DD-MM-YYYY> | 06-05-17 |
| Latitude | Latitude of survey point | 9.98897 |
| Longitude | Longitude of survey point | 78.02671 |

A sample output is shown below for reference:

| NH Number | Section Code | Start Chainage | End Chainage | Direction | Lane Number | LwpIri | RwpIri | LaneIri | Speed | Survey Date | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NH00xx | ABC-DEF | 0.0 | 0.1 | Increasing | L1 | 3.31 | 5.16 | 4.24 | 20 | 06-05-17 | 9.98897 | 78.02671 |
| NH00xx | ABC-DEF | 0.1 | 0.2 | Increasing | L1 | 2.81 | 3.54 | 3.18 | 37 | 06-05-17 | 9.98444 | 78.02934 |
| NH00xx | ABC-DEF | 0.2 | 0.3 | Increasing | L1 | 2.31 | 1.92 | 2.12 | 42 | 06-05-17 | 9.98341 | 78.03004 |
| NH00xx | ABC-DEF | 0.3 | 0.4 | Increasing | L1 | 2.17 | 2.37 | 2.27 | 46 | 06-05-17 | 9.98107 | 78.03078 |
| NH00xx | ABC-DEF | 0.4 | 0.5 | Increasing | L1 | 2.11 | 1.72 | 1.92 | 42 | 06-05-17 | 9.96328 | 78.04160 |
| NH00xx | ABC-DEF | 0.5 | 0.6 | Increasing | L1 | 2.33 | 1.97 | 2.15 | 49 | 06-05-17 | 9.95385 | 78.05255 |
| NH00xx | ABC-DEF | 0.6 | 0.7 | Increasing | L1 | 2.37 | 2.00 | 2.19 | 42 | 06-05-17 | 9.93102 | 78.05648 |
| NH00xx | ABC-DEF | 0.7 | 0.8 | Increasing | L1 | 2.15 | 2.17 | 2.16 | 33 | 06-05-17 | 9.91229 | 78.04961 |
| NH00xx | ABC-DEF | 0.8 | 0.9 | Increasing | L1 | 2.45 | 2.05 | 2.25 | 32 | 06-05-17 | 9.89041 | 78.03458 |
| NH00xx | ABC-DEF | 0.9 | 1.0 | Increasing | L1 | 2.18 | 2.51 | 2.35 | 48 | 06-05-17 | 9.88489 | 78.02995 |

## 2.3 Rutting

The following table lists the fields which need to be populated for the 'Rutting' attribute. The descriptions of the fields are given below.

| Field | Description | Example |
|---|---|---|
| NH Number | New National Highway number | NH0065 |
| Section Code | Code indicating starting and ending locations of section | HYD-VIJ (Hyderabad-Vijayawada) |
| Start Chainage | Chainage of the start point (in km) | 0.500 |

| Field | Description | Example |
|---|---|---|
| End Chainage | Chainage of the end point (in km) | 1.500 |
| Direction | Direction of survey<br>• Increasing (chainage)<br>• Decreasing (chainage) | Increasing |
| Lane Number | Number of the lane: L1, L2, R1, R2, etc., L1 being 1st lane on the left from centreline of carriageway, L2 being 2nd lane on the left from centerline and so on | L1 |
| Rutting Left | Rut depth in mm, measured from left wheel path | 20 |
| Rutting Right | Rut depth in mm, measured from left wheel path | 18 |
| Rutting Avg | Average rut depth measured from left and right wheel paths | 19 |
| Speed | Speed of vehicle in km/h | 42 |
| Survey Date | Date of survey in the format <DD-MM-YYYY> | 06-05-17 |
| Latitude | Latitude of survey point | 9.98897 |
| Longitude | Longitude of survey point | 78.02671 |

A sample output is shown below for reference:

| NH Number | Section Code | Start Chainage | End Chainage | Direction | Lane Number | Rutting Left | Rutting Right | Rutting Avg | Speed | Survey Date | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NH00xx | ABC-DEF | 0.0 | 0.5 | Increasing | L1 | 15 | 14 | 15 | 20 | 06-05-17 | 9.98897 | 78.02671 |
| NH00xx | ABC-DEF | 0.5 | 1.0 | Increasing | L1 | 20 | 18 | 19 | 37 | 06-05-17 | 9.98444 | 78.02934 |
| NH00xx | ABC-DEF | 1.0 | 1.5 | Increasing | L1 | 10 | 8 | 9 | 42 | 06-05-17 | 9.98341 | 78.03004 |
| NH00xx | ABC-DEF | 1.5 | 2.0 | Increasing | L1 | 5 | 6 | 6 | 46 | 06-05-17 | 9.98107 | 78.03078 |
| NH00xx | ABC-DEF | 2.0 | 2.5 | Increasing | L1 | 10 | 10 | 10 | 42 | 06-05-17 | 9.96328 | 78.04160 |
| NH00xx | ABC- | 2.5 | 3.0 | Increasing | L1 | 7 | | | | 06-05- | 9.95385 | 78.05255 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | DEF | | | | | | | | | 17 | | |
| NH00xx | ABC-DEF | 3.0 | 3.5 | Increasing | L1 | 20 | 18 | 19 | 42 | 06-05-17 | 9.93102 | 78.05648 |
| NH00xx | ABC-DEF | 3.5 | 4.5 | Increasing | L1 | 5 | 5 | 5 | 33 | 06-05-17 | 9.91229 | 78.04961 |
| NH00xx | ABC-DEF | 4.5 | 5.0 | Increasing | L1 | 5 | 5 | 5 | 32 | 06-05-17 | 9.89041 | 78.03458 |

## 2.4 *Texture Depth*

The following table lists the fields which need to be populated for the 'Texture Depth' attribute. The descriptions of the fields are given below.

| Field | Description | Example |
|---|---|---|
| NH Number | New National Highway number | NH0065 |
| Section Code | Code indicating starting and ending locations of section | HYD-VIJ (Hyderabad-Vijayawada) |
| Start Chainage | Chainage of the start point (in km) | 0.500 |

| Field | Description | Example |
|---|---|---|
| End Chainage | Chainage of the end point (in km) | 1.500 |
| Direction | Direction of survey<br>• Increasing (chainage)<br>• Decreasing (chainage) | Increasing |
| Lane Number | Number of the lane: L1, L2, R1, R2, etc., L1 being 1st lane on the left from centreline of carriageway, L2 being 2nd lane on the left from centerline and so on | L1 |
| Texture Left | Texture depth of pavement in mm, measured from left wheel path | 0.40 |
| Texture Right | Texture depth of pavement in mm, measured from left wheel path | 0.30 |
| Texture Average | Average texture depth measured from left and right wheel paths | 0.35 |
| Speed | Speed of vehicle in km/h | 42 |
| Survey Date | Date of survey in the format <DD-MM-YYYY> | 06-05-17 |
| Latitude | Latitude of survey point | 9.98897 |

| | | |
|---|---|---|
| Longitude | Longitude of survey point | 78.02671 |

A sample output is shown below for reference:

| NH Number | Section Code | Start Chainage | End Chainage | Direction | Lane Number | Texture Left | Texture Right | Texture Average | Speed | Survey Date | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NH00xx | ABC-DEF | 0.0 | 0.5 | Increasing | L1 | 0.40 | 0.30 | 0.35 | 20 | 06-05-17 | 9.98897 | 78.02671 |
| NH00xx | ABC-DEF | 0.5 | 1.0 | Increasing | L1 | 0.60 | 0.50 | 0.55 | 37 | 06-05-17 | 9.98444 | 78.02934 |
| NH00xx | ABC-DEF | 1.0 | 1.5 | Increasing | L1 | 0.80 | 0.90 | 0.85 | 42 | 06-05-17 | 9.98341 | 78.03004 |
| NH00xx | ABC-DEF | 1.5 | 2.0 | Increasing | L1 | 0.40 | 0.40 | 0.4 | 46 | 06-05-17 | 9.98107 | 78.03078 |
| NH00xx | ABC-DEF | 2.0 | 2.5 | Increasing | L1 | 0.30 | 0.30 | 0.3 | 42 | 06-05-17 | 9.96328 | 78.04160 |
| NH00xx | ABC-DEF | 2.5 | 3.0 | Increasing | L1 | 0.70 | 0.60 | 0.65 | 49 | 06-05-17 | 9.95385 | 78.05255 |
| NH00xx | ABC-DEF | 3.0 | 3.5 | Increasing | L1 | 0.40 | 0.50 | 0.45 | 42 | 06-05-17 | 9.93102 | 78.05648 |
| NH00xx | ABC-DEF | 3.5 | 4.5 | Increasing | L1 | 0.90 | 0.80 | 0.85 | 33 | 06-05-17 | 9.91229 | 78.04961 |
| NH00xx | ABC-DEF | 4.5 | 5.0 | Increasing | L1 | 0.40 | 0.30 | 0.35 | 32 | 06-05-17 | 9.89041 | 78.03458 |

## 2.5 Skid Resistance

The following table lists the fields which need to be populated for the 'Skid Resistance' attribute. The descriptions of the fields are given below.

| Field | Description | Example |
|---|---|---|
| NH Number | New National Highway number | NH0065 |
| Section Code | Code indicating starting and ending locations of section | HYD-VIJ (Hyderabad-Vijayawada) |

| Field | Description | Example |
|---|---|---|
| Start Chainage | Chainage of the start point (in km) | 0.500 |
| End Chainage | Chainage of the end point (in km) | 1.500 |
| Direction | Direction of survey<br>• Increasing (chainage)<br>• Decreasing (chainage) | Increasing |
| Lane Number | Number of the lane: L1, L2, R1, R2, etc., L1 being 1st lane on the left from centre line of carriageway, L2 being 2nd lane on the left from centerline and so on | L1 |
| Skid Left | Skid resistance of pavement measured as skid number, measured from left wheel path | 25 |
| Skid Right | Skid resistance of pavement measured as skid number, measured from left wheel path | 24 |
| Skid Average | Average skid resistance measured from left and right wheel paths | 24.5 |
| Speed | Speed of vehicle in km/h | 42 |
| Survey Date | Date of survey in the format <DD-MM-YYYY> | 06-05-17 |
| Latitude | Latitude of survey point | 9.98897 |
| Longitude | Longitude of survey point | 78.02671 |

A sample output is shown below for reference:

| NH Number | Section Code | Start Chainage | End Chainage | Direction | Lane Number | Skid Left | Skid Right | Skid Average | Speed | Survey Date | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NH00xx | ABC-DEF | 0.0 | 0.5 | Increasing | L1 | 25.0 | 24.0 | 24.5 | 20 | 06-05-17 | 9.98897 | 78.02671 |
| NH00xx | ABC-DEF | 0.5 | 1.0 | Increasing | L1 | 23.0 | 23.0 | 23.0 | 37 | 06-05-17 | 9.98444 | 78.02934 |
| NH00xx | ABC-DEF | 1.0 | 1.5 | Increasing | L1 | 23.0 | 24.0 | 23.5 | 42 | 06-05-17 | 9.98341 | 78.03004 |
| NH00xx | ABC-DEF | 1.5 | 2.0 | Increasing | L1 | 22.0 | 22.0 | 22.0 | 46 | 06-05-17 | 9.98107 | 78.03078 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NH00xx | ABC-DEF | 2.0 | 2.5 | Increasing | L1 | 20.0 | 21.0 | 20.5 | 42 | 06-05-17 | 9.96328 | 78.04160 |
| NH00xx | ABC-DEF | 2.5 | 3.0 | Increasing | L1 | 24.0 | 24.0 | 24.0 | 49 | 06-05-17 | 9.95385 | 78.05255 |
| NH00xx | ABC-DEF | 3.0 | 3.5 | Increasing | L1 | 28.0 | 28.0 | 28.0 | 42 | 06-05-17 | 9.93102 | 78.05648 |
| NH00xx | ABC-DEF | 3.5 | 4.5 | Increasing | L1 | 21.0 | 21.0 | 21.0 | 33 | 06-05-17 | 9.91229 | 78.04961 |
| NH00xx | ABC-DEF | 4.5 | 5.0 | Increasing | L1 | 25.0 | 24.0 | 24.5 | 32 | 06-05-17 | 9.89041 | 78.03458 |

## 2.6 Falling Weight Deflectometer (FWD)

The following table lists the fields which need to be populated for the 'FWD' attribute. The descriptions of the fields are given below.

| Field | Description | Example |
|---|---|---|
| NH Number | New National Highway number | NH0065 |

| Field | Description | Example |
|---|---|---|
| Section Code | Code indicating starting and ending locations of section | HYD-VIJ (Hyderabad-Vijayawada) |
| Chainage | Chainage of survey point (in km) | 0.500 |
| Direction | Direction of survey<br>• Increasing (chainage)<br>• Decreasing (chainage) | Increasing |
| Lane Number | Number of the lane: L1, L2, R1, R2, etc., L1 being 1st lane on the left from centre line of carriageway, L2 being 2nd lane on the left from centerline and so on | L1 |
| Air Temperature | Air temperature recorded in °C | 33 |
| Surface Temperature | Temperature of the pavement surface, recorded in °C | 39.3 |
| Peak Load | Peak impulse load, measured in kN | 45.7 |
| Deflection0 | Surface deflection at the test load center, measured in micron | 246 |
| Deflection1 | Surface deflection at location 1 from the test load center, measured in micron | 110 |
| Distance1 | Distance of location 1 from the test load center | 300 |

| | | |
|---|---|---|
| Deflection2 | Surface deflection at location 2 from the test load center, measured in micron | 153 |
| Distance2 | Distance of location 2 from the test load center | 600 |
| Deflection3 | Surface deflection at location 3 from the test load center, measured in micron | 110 |
| Distance3 | Distance of location 3 from the test load center | 900 |
| Deflection4 | Surface deflection at location 4 from the test load center, measured in micron | 76 |
| Distance4 | Distance of location 4 from the test load center | 1200 |
| Deflection5 | Surface deflection at location 5 from the test load center, measured in micron | 59 |
| Distance5 | Distance of location 5 from the test load center | 1500 |
| Deflection6 | Surface deflection at location 6 from the test load center, measured in micron | 44 |
| Distance6 | Distance of location 6 from the test load center | 1800 |
| Deflection7 | Surface deflection at location 7 from the test load center, measured in micron | 35 |
| Distance7 | Distance of location 7 from the test load center | 2100 |
| Deflection8 | Surface deflection at location 8 from the test load center, measured in micron | 28 |
| Distance8 | Distance of location 8 from the test load center | 2400 |
| Elastic Modulus BituminousE1 | Elastic modulus of bituminous layer, back calculated in MPa | 3359 |
| Elastic Modulus GranularE2 | Elastic modulus of granular layer, backcalculated in MPa | 396 |
| Elastic Modulus SubGradeE3 | Elastic modulus of subgrade, back calculated in MPa | 90 |

| Field | Description | Example |
|---|---|---|
| Corrected Elastic Modulus BituminousE1 | Corrected elastic modulus of bituminous layer in MPa | 3424 |
| Corrected Elastic Modulus GranularE2 | Corrected elastic modulus of granular layer in MPa | 300 |
| CorrectedElasticModulusSubGradeE3 | Corrected elastic modulus of subgrade in MPa | 69 |
| Bituminous Layer | Thickness of bituminous layer in mm | 105 |
| Base Layer | Thickness of base layer in mm | 230 |
| GSB Layer | Thickness of GSB layer in mm | 200 |
| Subgrade CBR | CBR of subgrade | 0.08 |
| BituminousLayerCoefficientA1 | Layer coefficient of the bituminous layer | 0.36 |
| BaseLayerCoefficientA2 | Layer coefficient of the base layer | 0.17 |
| GranularBaseLayerCoefficientA3 | Layer coefficient of the GSB layer | 0.17 |
| Structural Number | Structural number of the pavement | 3.86 |
| Modified Structural Number | Modified structural number including contribution from subgrade | 4.85 |
| Survey Date | Date of survey in the format <DD-MM-YY> | 06-05-17 |
| Latitude | Latitude of survey point | 9.98897 |
| Longitude | Longitude of survey point | 78.02671 |

A sample output is shown below for reference:

| NH Number | Section Code | Chainage | Direction | Lane Number | Air Temperature | Surface Temperature | Peak Load | Deflection0 | Deflection1 | Location 1 | Deflection2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NH00xx | ABC-DEF | 0.500 | RHS | R2 | 32.6 | 43.7 | 45.7 | 333 | 188 | 300 | 243 |
| NH00xx | ABC-DEF | 1.000 | LHS | L1 | 29.9 | 32.6 | 45.4 | 317 | 163 | 300 | 217 |
| NH00xx | ABC- | 1.499 | RHS | R1 | 33.0 | 3399..33 | 45.7 | 246 | 110 | 300 | 153 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | DEF | | | | | | | | | | |
| NH00xx | ABC-DEF | 2.000 | LHS | L2 | 28.7 | 32.4 | 46.0 | 293 | 130 | 300 | 187 |
| NH00xx | ABC-DEF | 2.500 | RHS | R2 | 33.7 | 45.8 | 45.3 | 429 | 232 | 300 | 316 |
| NH00xx | ABC-DEF | 3.000 | LHS | L1 | 29.0 | 33.0 | 45.7 | 343 | 204 | 300 | 252 |
| NH00xx | ABC-DEF | 3.500 | RHS | R1 | 33.5 | 45.4 | 44.5 | 373 | 194 | 300 | 268 |
| NH00xx | ABC-DEF | 4.010 | LHS | L2 | 28.9 | 33.5 | 45.0 | 348 | 201 | 300 | 254 |
| NH00xx | ABC-DEF | 4.500 | RHS | R2 | 33.3 | 40.3 | 46.0 | 393 | 241 | 300 | 301 |

**(table continued...)**

| ocatio n 2 | Deflectio n3 | Locatio n 3 | Deflectio n4 | Locatio n 4 | Deflectio n5 | Locatio n 5 | Deflectio n6 | Locatio n 6 | Deflectio n7 | Locatio n 7 | Deflectio n8 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 600 | 180 | 900 | 128 | 1200 | 102 | 1500 | 75 | 1800 | 58 | 2100 | 42 |
| 600 | 158 | 900 | 104 | 1200 | 70 | 1500 | 48 | 1800 | 38 | 2100 | 28 |
| 600 | 110 | 900 | 76 | 1200 | 59 | 1500 | 44 | 1800 | 35 | 2100 | 28 |
| 600 | 126 | 900 | 81 | 1200 | 62 | 1500 | 44 | 1800 | 32 | 2100 | 23 |
| 600 | 227 | 900 | 152 | 1200 | 116 | 1500 | 86 | 1800 | 71 | 2100 | 58 |
| 600 | 196 | 900 | 144 | 1200 | 117 | 1500 | 85 | 1800 | 65 | 2100 | 48 |
| 600 | 187 | 900 | 118 | 1200 | 83 | 1500 | 47 | 1800 | 31 | 2100 | 22 |
| 600 | 198 | 900 | 135 | 1200 | 105 | 1500 | 64 | 1800 | 42 | 2100 | 26 |
| 600 | 231 | 900 | 162 | 1200 | 123 | 1500 | 82 | 1800 | 62 | 2100 | 46 |

**(table continued...)**

| Loca tion 8 | ElasticMod ulusBitumi nousE1 | ElasticMod ulusGranul arE2 | ElasticMod ulusSubGra deE3 | CorrectedElasti c ModulusBitumi n ousE1 | CorrectedElast i cModulusGran ularE2 | CorrectedElast i cModulusSubGr adeE3 | Bitum i nousL ayer | Bas eLa yer | GS BLa yer | Sub gra de CB R |
|---|---|---|---|---|---|---|---|---|---|---|
| 2400 | 6213 | 185 | 100 | 6447 | 135 | 78 | 105 | 230 | 200 | 0.08 |
| 2400 | 5356 | 195 | 100 | 5295 | 143 | 78 | 105 | 230 | 200 | 0.08 |
| 2400 | 3359 | 396 | 90 | 3424 | 300 | 69 | 105 | 230 | 200 | 0.08 |
| 2400 | 4830 | 226 | 100 | 4770 | 169 | 78 | 105 | 230 | 200 | 0.08 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2400 | 4570 | 137 | 97 | 4781 | 93 | 75 | 105 | 230 | 200 | 0.08 |
| 2400 | 8454 | 135 | 100 | 8374 | 91 | 78 | 105 | 230 | 200 | 0.08 |
| 2400 | 4394 | 165 | 100 | 4590 | 117 | 78 | 105 | 230 | 200 | 0.08 |
| 2400 | 7817 | 139 | 96 | 7762 | 95 | 74 | 105 | 230 | 200 | 0.08 |
| 2400 | 7666 | 123 | 95 | 7847 | 81 | 73 | 105 | 230 | 200 | 0.08 |

**(table continued...)**

| Bituminous Layer Coefficient A1 | Base Layer CoefficientA2 | Granular Base Layer CoefficientA3 | Structural Number | Modified Structural Number | Survey Date | Latitude | Longitude |
|---|---|---|---|---|---|---|---|
| 0.45 | 0.13 | 0.13 | 3.68 | 4.82 | 01-07-16 | 9.98897 | 78.02671 |
| 0.42 | 0.13 | 0.13 | 3.56 | 4.70 | 23-06-16 | 9.98444 | 78.02934 |
| 0.36 | 0.17 | 0.17 | 3.86 | 4.85 | 01-07-16 | 9.98341 | 78.03004 |
| 0.41 | 0.14 | 0.14 | 3.65 | 4.79 | 23-06-16 | 9.98107 | 78.03078 |
| 0.41 | 0.11 | 0.11 | 3.24 | 4.34 | 01-07-16 | 9.96328 | 78.04160 |
| 0.49 | 0.11 | 0.11 | 3.58 | 4.72 | 23-06-16 | 9.95385 | 78.05255 |
| 0.40 | 0.12 | 0.12 | 3.34 | 4.48 | 01-07-16 | 9.93102 | 78.05648 |
| 0.48 | 0.12 | 0.12 | 3.67 | 4.75 | 23-06-16 | 9.91229 | 78.04961 |
| 0.48 | 0.11 | 0.11 | 3.53 | 4.59 | 01-07-16 | 9.89041 | 78.03458 |

## 2.7 Falling Weight Deflectometer (FWD) Rigid

The following table lists the fields which need to be populated for the 'FWD Rigid' attribute. The descriptions of the fields are given below.

| Field | Description | Example |
|---|---|---|
| NH Number | New National Highway number | NH0065 |
| Section Code | Code indicating starting and ending locations of section | HYD-VIJ (Hyderabad-Vijayawada) |
| Chainage | Chainage of the point (in km) | 0.500 |
| Direction | Direction of survey<br>• Increasing (chainage)<br>• Decreasing (chainage) | Increasing |
| Lane Number | Number of the lane: L1, L2, R1, R2, etc. | L2 |
| Air Temperature | Air temperature recorded in °C | 30.1 |
| Surface Temperature | Temperature of the pavement surface, recorded in °C | 39.4 |
| Peak Load | Peak impulse load, measured in kN | 103.7 |
| Deflection1 | Surface deflection at the test load center, measured in micron | 140 |
| Deflection2 | Surface deflection at 300 mm from the test load center, measured in micron | 121 |
| Deflection3 | Surface deflection at 600 mm from the test load center, measured in micron | 108 |
| Deflection4 | Surface deflection at 900 mm from the test load center, measured in micron | 101 |
| Concrete Slab Thicknessh | Thickness of concrete slab, measured in mm | 300 |
| Area of Deflection Basin | Area of deflection basin, calculated from measured deflections, in $cm^2$ | 761 |
| Radius of Relative Stiffness | Radius of relative stiffness, calculated in mm | 823 |
| NormalizedDeflectiond 1 | Normalized deflection at location 1, in mm | 3.1 |
| NormalizedDeflectiond2 | Normalized deflection at location 2, in mm | 2.9 |
| NormalizedDeflectiond 3 | Normalized deflection at location 3, in mm | 2.4 |

| | | |
|---|---|---|
| NormalizedDeflectiond 4 | Normalized deflection at location 4, in mm | 1.9 |
| Modulus of Subgrade Reaction k | Modulus of subgrade reaction, measured in MPa/m | 131 |
| Elastic Modulus of Concrete Ec | Elastic modulus of concrete, calculated in MPa | 26118 |
| Cube Strength of Concrete fck | Cube strength of concrete, calculated inMPa | 27 |
| Flexural strength of concrete fmr | Flexural strength of concrete, calculated in MPa | 3.7 |
| Date Of Testing | Date of testing in the format <DD-MM-YY> | 06-05-17 |
| Latitude | Latitude of survey point | 9.98897 |
| Longitude | Longitude of survey point | 78.02671 |

A sample output is shown below for reference:

| NH No | Section Code | Chain-age | Direction | Lane No. | Air Temperature | Surface Temperature | Peak Load | Deflection 1 | Deflection 2 | Deflection 3 | Deflection 4 | Concrete Slab Thickness H |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NH00xx | ABC-DEF | 0.0 | LHS | L2 | 29.0 | 34.9 | 104.1 | 167 | 143 | 130 | 119 | 300 |
| NH00xx | ABC-DEF | 0.5 | RHS | R2 | 30.5 | 38.1 | 104.4 | 141 | 130 | 122 | 115 | 300 |
| NH00xx | ABC-DEF | 1.0 | LHS | L1 | 30.0 | 35.6 | 105.2 | 147 | 111 | 100 | 91 | 300 |
| NH00xx | ABC-DEF | 1.5 | RHS | R1 | 28.9 | 38.3 | 102.4 | 140 | 126 | 116 | 107 | 300 |
| NH00xx | ABC-DEF | 2.0 | LHS | L2 | 30.1 | 39.4 | 103.7 | 140 | 121 | 108 | 101 | 300 |
| NH00xx | ABC-DEF | 2.5 | RHS | R2 | 29.0 | 37.5 | 104.6 | 150 | 134 | 126 | 117 | 300 |
| NH00xx | ABC-DEF | 3.0 | LHS | L1 | 30.6 | 38.9 | 102.7 | 124 | 109 | 104 | 92 | 300 |
| NH00xx | ABC-DEF | 3.5 | RHS | R1 | 29.3 | 39.1 | 105.9 | 149 | 136 | 128 | 119 | 300 |
| NH00xx | ABC-DEF | 4.5 | RHS | R2 | 30.3 | 41.0 | 104.9 | 138 | 127 | 121 | 114 | 300 |

**(table continued...)**

| Area of Deflection Basin | Radius of RelativeStiffness | Normalized Deflection d1 | Normalized Deflection d2 | Normalized Deflection d3 | Normalized Deflection d4 | Modulus of Subgrade Reaction k | Elastic Modulus of Concrete Ec | Cube Strength of Concrete fck | Flexural strength of concrete fmr | Date Of Testing | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 759 | 816 | 3 | 3 | 2 | 2 | 112 | 21590 | 19 | 3 | 25-06-16 | 9.98897 | 78.02671 |
| 821 | 1214 | 3 | 3 | 3 | 2 | 62 | 58161 | 135 | 8 | 28-06-16 | 9.98444 | 78.02934 |
| 684 | 580 | 3 | 3 | 2 | 1 | 246 | 12051 | 6 | 2 | 25-06-16 | 9.98341 | 78.03004 |
| 796 | 1014 | 3 | 3 | 3 | 2 | 87 | 39783 | 63 | 6 | 28-06-16 | 9.98107 | 78.03078 |
| 761 | 823 | 3 | 3 | 2 | 2 | 131 | 26118 | 27 | 4 | 25-06-16 | 9.96328 | 78.04160 |
| 800 | 1040 | 3 | 3 | 3 | 2 | 79 | 39908 | 64 | 6 | 28-06-16 | 9.95385 | 78.05255 |
| 789 | 971 | 3 | 3 | 3 | 2 | 107 | 41290 | 68 | 6 | 25-06-16 | 9.93102 | 78.05648 |
| 814 | 1150 | 3 | 3 | 3 | 2 | 66 | 50086 | 100 | 7 | 28-06-16 | 9.91229 | 78.04961 |
| 826 | 1257 | 3 | 3 | 3 | 2 | 59 | 64082 | 164 | 9 | 28-06-16 | 9.89041 | 78.03458 |

# *Section VI-A: List of Key Experts and Required Qualifications:-*

*Consultancy Services(Ref ITC-clause 1.4)*

*Note for Consultants: Regarding this Section, Consultants must fill following forms:-*

*a) Form T-6: Team Composition, Assignment, and Key Experts' Inputs*

*b) Annex to Form T-6: Key Expert Curriculum Vitae (CV)*

*The total estimated inputs of the Key Experts and their breakup is given below*

## *MAN MONTHS INPUT FOR KEY PROFESSIONAL STAFF*

*AUTHORITY ENGINEER*

**Normal Highway Project**

*(For projects with length 0-60 km)*

| S. No. | Key Personnel | Man-month in Construction Period of 36 months | Man-month in Defect Liability Period of 120 months |
|---|---|---|---|
| A: Key Personnel | | | |
| 1. | Team Leader Cum Senior Highway Engineer | 36 | 30 |
| 2. | Resident cum Highway Engineer | 36 | 120 |
| 3. | Bridge/Structural Engineer | 36 | 20 |
| 4. | Senior Pavement Specialist | 12 | 0 |
| 5. | Senior Quality cum Material Expert | 36 | 0 |
| 6. | Planning Engineer | 9 | 6 |
| 7. | Road Safety Expert | 12 | 20 |
| | Sub Total | 177 | 196 |
| | Total for Construction and Maintenance | 373 | |
| B: Sub Professional Staff | | | |
| 1. | Survey Engineer | 36 | 20 |
| 2. | Assistant Highway Engineer (2 Nos) | 2 x 36 | 1 X 120 |
| 3. | CAD Expert | 7 | 8 |
| 4. | Environmental Engineer | 7 | 0 |
| 5. | Assistant Bridge Engineer | 36 | |
| 6. | Assistant Quality cum Material Engineer (2 nos) | 2 x 36 | 0 |
| 7. | Electrical Engineer | 7 | 6 |
| 8. | HTMS/Toll Expert | 0 | 0 |
| 9. | Quantity Surveyor | 36 | 16 |
| 10. | Horticulture cum Landscaping Expert | 10 | 36 |
| 11. | Lab technician | 2x36 | 0 |
| 12. | Document/ Data entry Operator | 36 | 0 |
| | Sub Total | 391 | 206 |
| | Total for Construction and Maintenance | 597 | |
| Grand Total | | 970 | |

**Note:**

1. The other inputs like support staff shall be provided by the Consultant of an acceptable type commensurate with the roles and responsibilities of each position
2. In case of project having different construction period, Man Month Input shall be adjusted proportionately
3. The Contract Specialist, Financial Expert or Legal expert or any other expert as per project requirement may be required for the project for specific needs. Their deployment shall be arranged by the Consultant on specific requisition from the Authority and the payment shall be made as per the actual deployment. The Financial Expert or Legal expert or Contract Specialist shall be paid at the rates quoted for Senior Pavement Specialist.

*MAN - MONTHS INPUT FOR KEY PROFESSIONAL STAFF*

*AUTHORITY ENGINEER*

**Normal Highway Project**

*(For projects with length more than 60 km)*

| S. No. | Key Personnel | Man-month in Construction periodof 24 months | Man-month in DefectLiability Period of 60 months |
|---|---|---|---|
| A: Key Personnel | | | |
| | Team Leader Cum Senior Highway Engineer | 24 | 15 |
| | Resident cum Highway Engineer (2 nos) | 2x24 | 1x60 |
| | Bridge/Structural Engineer | 24 | 15 |
| | Senior Pavement Specialist | 8 | 0 |
| | Senior Quality cum Material Expert | 24 | 0 |
| | Planning Engineer | 6 | 3 |
| | Road Safety Expert | 8 | 15 |
| | **Sub Total** | **142** | **108** |
| | **Total for Construction and Maintenance** | **250** | |
| **B: Sub Professional Staff** | | | |
| | Survey Engineer (3 nos) | 3x24 | 1x10 |
| | Assistant Highway Engineer(3 nos) | 3x24 | 1x60 |
| | CAD Expert | 8 | 4 |
| | Environmental Engineer | 6 | 0 |
| | Assistant Bridge Engineer (2 nos) | 2 x 24 | 1x60 |
| | Assistant Quality cum Material Engineer (3 nos) | 3 x 24 | 0 |
| | Electrical Engineer | 4 | 3 |
| | HTMS/Toll Expert | 3 | 0 |
| | Quantity Surveyor | 24 | 8 |
| | Horticulture cum Landscaping Expert | 8 | 28 |
| | Lab technician | 4x24 | 0 |
| | Document/ Data Entry Operator | 24 | 0 |
| | **Sub Total** | **437** | **173** |
| | **Total for Construction and Maintenance** | **646** | |
| **Grand Total** | | **896** | |

**Note:**

1. The other inputs like support staff shall be provided by the Consultant of an acceptable type commensurate with the roles and responsibilities of each position
2. In case of project having different construction period, Man Month Input shall be adjusted proportionately
3. The Financial Expert or Legal expert or Contract Specialist may be required for the project for specific needs. Their deployment shall be arranged by the Consultant on specific requisition from the Authority and the payment shall be made as per the actual deployment. The Financial Expert or Legal expert or Contract Specialist shall be paid at the rates quoted for Senior Pavement Specialist.

*MAN - MONTHS INPUT FOR KEY PROFESSIONAL STAFF*

*AUTHORITY ENGINEER*

**Standalone Bridge Project**

| S. No. | Key Personnel | Man-month in Construction period of 36 months | Man-month in Defect Liability Period of 120 months |
|---|---|---|---|
| A: Key Personnel | | | |
| 1. | Team Leader Cum Senior Bridge Engineer | 36 | 30 |
| 2. | Resident cum Pavement Specialist | 36 | 30 |
| 3. | Bridge/Structural Engineer | 36 | 120 |
| 4. | Planning Engineer | 10 | 0 |
| 5. | Senior Quality cum Material Expert | 36 | 0 |
| 6. | Road Safety Expert | 12 | 10 |
| | Sub Total | **166** | **190** |
| | **Total for Construction and Maintenance** | **356** | |
| **B: Sub Professional Staff** **(To be decided by the Authority as per requirement of the Project at the time of preparation of RFP)** | | | |
| (a) | | | |
| (b) | | | |
| (c) | | | |
| d) | Lab technician | 36 | 3 |
| | Sub Total | | |
| | | | |
| | Sub Total | | |
| | **Total for Construction and Maintenance** | | |
| **Grand Total** | | | |

**Note:** The number of key personnel may be modified as per the requirement with the approval of Competent Authority.

**Standalone Tunnel Project**

| ~~S. No.~~ | ~~Key Personnel~~ | ~~Man-month in Construction period of 60 months~~ | ~~Man-month in Defect Liability Period of 60 months~~ |
|---|---|---|---|
| ~~A: Key Personnel~~ | | | |
| ~~1.~~ | ~~Team Leader Cum Senior Tunnel Expert~~ | ~~60~~ | ~~15~~ |
| ~~2.~~ | ~~Resident cum Excavation Specialist~~ | ~~60~~ | ~~60~~ |
| ~~3.~~ | ~~Senior Geotechnical Expert~~ | ~~60~~ | ~~0~~ |
| ~~4.~~ | ~~Tunnel Design Engineer~~ | ~~60~~ | ~~0~~ |
| ~~5.~~ | ~~Tunnel Safety Expert~~ | ~~60~~ | ~~5~~ |
| ~~6.~~ | ~~Planning Engineer~~ | ~~10~~ | ~~0~~ |
| ~~7.~~ | ~~Senior Geologist~~ | ~~20~~ | ~~0~~ |
| | ~~Sub Total~~ | ~~**33**~~ ~~**0**~~ | ~~**80**~~ |
| | ~~Total for Construction and Maintenance~~ | ~~**410**~~ | |
| ~~B: Sub Professional Staff~~ ~~(To be decided by the Authority as per requirement of the Project at thetime of preparation of RFP)~~ | | | |
| | | | |
| | | | |
| | | | |
| | ~~Lab technician~~ | | |
| | ~~Sub Total~~ | | |
| ~~(To be decided by the Authority as per requirement of the Project at the time of preparation of RFP)~~ | | | |
| | ~~Total for Construction and Maintenance~~ | | |
| ~~Grand Total~~ | | | |

**Note:** The number of key personnel may be modified as per the requirement with the approval of Competent Authority.

## QUALIFICATION OF KEY PERSONNEL

### TEAM LEADER CUM SENIOR HIGHWAY ENGINEER

This is the senior most position and the expert engaged as the team leader shall be responsible for reviewing the entire Project preparation and implementation activities of the Concessionaire. He shall check all the Designs being prepared by the Concessionaire, ensure execution of works on site as per specification and standards, and continuously interact with the <Agency> and the Concessionaire. He shall undertake Project site visits and shall guide, supervise, coordinate and monitor the work of other experts in his team as well as those of the Concessionaire. The candidate is required to be a Senior Highway Engineer, who should have a proven record of supervising, organising and managing of construction of highway projects and also of Project preparation of large magnitudes projects, as defined below, financed by international lending agencies and others. Knowledge of Project management shall be an added advantage.

**Essential Qualifications:**

a) Graduate in Civil Engineering from recognized university.

b) Total Professional Experience of at least 12 years in handling Highway Projects.

c) At least 5 years experience as Team Leader/Project Manager or similar capacity in Highway Development Project.

d) He should have handled as Team Leader/Project Manager or similar capacity of at least two projects in Construction Supervision / IC (of length 40% of project length or more of similar configuration (2/4/6 laning)).

e) He should have handled as Team Leader or similar capacity of at least two Projects of project Preparation of major highway Project (of length 40% of project length or more of similar configuration (2/4/6 laning)).

f) Experience as Team Leader/Project Manager or similar capacity in Operation and Maintenance of Major Highway Projects (of length 40% of project length or more of similar configuration (2/4/6 laning)).

g) Medical certificate of fitness as per Appendix-B-1.

**Preferential Qualifications:**

a) Post Graduate Degree in Construction Management/Transportation/Highway Engineering/Structural Engineering/any specialised stream of Civil Engineering.

b) Highway Development Projects (of length 40% of project length or more of similar configuration (2/4/6 laning)) taken up under EPC.

c) Degree/Diploma/Certificate in Project Management/Training programme in Highways Engineering from IAHE.

Note: Similar Capacity includes the following positions – On behalf of Consultant: Team Leader / Resident Engineer (Construction Supervision/IE/AE); On behalf of Contractor: Project Manager (Construction/Construction Supervision); In Government Organizations: Superintending Engineer (or equivalent) and above. Only those projects will be considered for evaluation at Sl. No. 1(d), 1(e) & 1(f), where the input of the personnel is 12 months, 9 months and 12 months respectively.

**RESIDENT CUM HIGHWAY ENGINEER**

The Resident cum Highway Engineer shall be responsible for supervising the works of highway to be constructed by the Concessionaire for this project. He shall also inspect the pavement rehabilitation and repair works to be undertaken by the Concessionaire.

**Essential Qualifications:**

a) Graduate in Civil Engineering from a recognized University.
b) Professional Experience of at least 12 years in Highway Projects.
c) At least 5 years experience in similar capacity in Highway Development Project.
d) Should have handled at least 2 major projects (of length 40% of project length or more of similar configuration (2/4/6 laning) and above).

e) Medical certificate of fitness as per Appendix-B-1.

**Preferential Qualifications:**

a) Post Graduate Degree in Transportation/Highway Engineering/Structural Engineering/Geotechnical Engineering/any specialised stream of Civil Engineering.
b) Attended Minimum 5 days training programme in field related to Design and supervision of Highways related topic from IAHE.
c) Experience of Highway Project (of length 40% of project length or more of similar configuration (2/4/6 laning) and above) of Construction / Construction Supervision / IC of Highway projects, Interchange / any other structures.
d) Experience in similar capacity in supervision of at least 2 Major Highway Bridges.
e) Experience in supervision of Rehabilitation and repair of 2 nos Major Bridges.

**SENIOR PAVEMENT SPECIALIST**

The expert shall be continuously interacting with the Concessionaire, for the review of highway designs and drawings using sophisticated computer software and also construction and O&M works and to ensure life cycle cost effectiveness and viable design of pavement including appropriate rehabilitation / strengthening of the existing two lane pavement which is significantly distressed. He shall also be responsible for ensuring complete adherence to maintenance standards during Construction and Operation period.

**Essential Qualifications:**

a) Graduate in Civil Engineering from a recognized University.
b) Professional Experience of at least 10 years in Pavement Design / Pavement Construction / Pavement Maintenance of Highways / Roads / Airfield Runways.
c) Experience of at least 5 years in similar capacity in Construction / Construction Supervision of 2/4/6 laning of major highway projects.
d) Experience as Pavement / Geotechnical Engineer in Construction/Construction Supervision of at least 2 major highway projects (of length 40% of project length or more of similar configuration).

e) Medical certificate of fitness as per Appendix-B-1.

**Preferential Qualifications:**

a) Post Graduate Degree in Highway Engineering / Pavement Engineering / Transportation Engineering.
b) Experience as a Pavement Specialist/Pavement Engineer in Highway projects of similar

configuration.
c) Attended residential training programme related to pavement/highway design from IAHE.

**SENIOR QUALITY/MATERIAL EXPERT**

The Quality/Material Expert shall review the test results of bore holes, quarry and borrow area material to find out their strength characteristics and suitability for using them in construction. He shall inspect the Concessionaire's field laboratories to ensure adequacy and capability. He shall supervise quality assurance aspects including crushers and mixing plants.

**Essential Qualifications:**

a) Graduate in Civil Engineering from a recognized University.
b) Professional Experience of at least 10 years in handling Highway projects.
c) Experience of at least 5 years as Senior Quality/Material Expert or similar capacity in Construction / Construction Supervision / major highway projects.
d) Experience as Senior Quality/Material Expert or similar capacity in handling of at least 2 similar highway projects (of length 40% of project length or more).

e) Medical certificate of fitness as per Appendix-B-1.

**Preferential Qualifications:**

a) Post Graduate Degree in Geotechnical Engineering / Foundation Engineering / Soil Mechanics.
b) Trained in 16 days material testing process course from IAHE or CRRI.

**ROAD SAFETY EXPERT**

Responsible for the overall Road Safety Aspect of the Project. He shall ensure that safety provisions as per relevant codes are strictly followed at site during Construction of Road and also during the Maintenance Period.

**Essential Qualifications:**

a) Graduate in Civil Engineering from a recognized University.
b) Professional Experience of at least 10 years in handling Highway projects.
c) Minimum 5 years experience in Road Safety works of Major Highway Projects (4/6 laning projects).
d) Experience in Road Safety Audit of at least 2 highway/expressway projects including 1 at design stage.
e) Experience in Road Safety Management Plan.

f) Medical certificate of fitness as per Appendix-B-1.

**Preferential Qualifications:**

a) Post Graduate Degree in Traffic Transportation/Safety Engineering.
b) Experience in identification and improvement of black spots on Major Highway Projects.
c) Experience in preparation of Road Safety Management Plan for inter urban Highways.
d) 15 days Certificate course on Road Safety Audit from IAHE/CRRI.

**TEAM LEADER CUM SENIOR BRIDGE ENGINEER**

Responsible for reviewing the Project preparation and implementation activities for bridges. Shall check designs and drawings, ensure execution per standards, track progress, recommend on EOT, CoS, Force Majeure, disputes, and upload progress on data portals.

**Essential Qualifications:**

a) Graduate in Civil Engineering.
b) Professional Experience of at least 12 years in handling Bridge Projects.
c) At least 5 years as Team Leader/Project Manager or similar in Highway Development Project.
d) Handled at least 2 projects in Construction Supervision/IC (length criteria 40% or more).
e) Handled at least 2 projects involving at least one Major Bridge (minimum 300 m length without approaches).
f) Experience in O&M of Major Bridge (minimum 300 m length).

g) Medical certificate of fitness as per Appendix-B-1.

**Preferential Qualifications:**

a) Post Graduate Degree in Structural Engineering or equivalent.
b) Highway Development Projects (length 40% or more).
c) Degree/Diploma/Certificate in Project Management.
d) Residential training programme on Collapse/failure of bridges/structures.

Note: Similar capacity includes TL/RE (Consultant), Project Manager (Contractor), Superintending Engineer (Govt). Input criteria: 12 months, 9 months, 12 months respectively.

**TEAM LEADER CUM SENIOR TUNNEL ENGINEER**

Overall in-charge of the project supervision of tunneling works. Duties include monitoring, guiding, supervising construction supervision of tunnel packages, interacting with Authority, tracking resources, delays, EOT proposals.

**Essential Qualifications:**

a) Graduate in Civil/Mining Engineering.
b) Total Professional Experience of at least 20 years.
c) At least 15 years in major tunneling projects.
d) At least 10 years in construction/construction supervision of Road/Rail/Metro tunnels.
e) At least 5 years as Team Leader/RE/PM in supervision of tunnel projects of length ≥4 km.
f) Handled at least two projects in Construction Supervision of tunnels ≥4 km length.
g) Not more than 65 years of age.

h) Medical certificate of fitness as per Appendix-B-1.

**Preferential Qualifications:**

a) Post Graduate or chartered engineer in Mining/Geotechnical/Structural Engineering/Rock Mechanics.
b) Project preparation/design experience of tunnel projects.
c) At least one training course in past 2 years from IAHE.

**RESIDENT ENGINEER CUM TUNNEL EXCAVATION EXPERT**

Responsible for overseeing tunnel excavation, methodology, lining, waterproofing, blasting.

Coordinates with Team Leader.

**Essential Qualifications:**
a) Graduate in Civil/Mining Engineering.
b) Total Professional Experience of at least 15 years.
c) At least 10 years in similar capacity for major tunnel projects.

d) At least 7 years in construction supervision of major transportation tunnel construction projects.
e) Handled at least 2 tunnel projects of length ≥4 km.
f) Experience in tunnel design/DPR/feasibility/design review of tunnel projects ≥4 km.
g) Not more than 65 years.

h) Medical certificate of fitness as per Appendix-B-1.

**Preferential Qualifications:**
a) Post Graduate or chartered engineer in civil/mining.
b) At least one training course in past 2 years from IAHE.

**TUNNEL DESIGN ENGINEER**
Responsible for checking tunnel designs, detailed calculations, structural condition assessments.

**Essential Qualifications:**
a) Graduate in Civil Engineering.
b) Professional Experience of at least 20 years.
c) At least 12 years in major tunnel projects.
d) At least 12 years in tunnel design (Road/Rail/Metro).
e) Experience in supervision of 2 tunnel projects ≥4 km.
f) Experience in design of 3 tunnel projects ≥4 km.
g) Not more than 65 years.

h) Medical certificate of fitness as per Appendix-B-1.

**Preferential Qualifications:**
a) Post Graduate in Structural Engineering.
b) Experience in innovative tunnel design (immersed, sub-sea bored).
c) At least one training course in past 2 years from IAHE.

**SENIOR GEO-TECHNICAL EXPERT**
Responsible for geotechnical investigations, supervising tests, assisting tunnel design.

**Essential Qualifications:**
a) Graduate in Civil Engineering/Masters in Engineering Geology.
b) Professional Experience of at least 20 years.
c) At least 10 years in Construction/Construction Supervision of transportation tunnel projects in developed countries.
d) Experience as Geotechnical Engineer in at least 4 tunnel projects ≥4 km.
e) Specific experience in vertical shaft sinking ≥200 m.
f) Project preparation of at least 2 tunnel projects ≥4 km.
g) Not more than 65 years.

h) Medical certificate of fitness as per Appendix-B-1.

**Preferential Qualifications:**
a) Post Graduate in Rock Mechanics/Foundation Engineering/Tunnel Engineering.
b) At least one training course in past 2 years from IAHE.

**TUNNEL SAFETY EXPERT**
Responsible for tunnel safety management and audits.

**Essential Qualifications:**
a) Post Graduate in Civil/Mining Engineering.
b) Total Professional Experience of at least 20 years.
c) At least 7 years in tunnel safety management in developed countries.
d) At least 10 years in tunnel safety works.
e) Safety audits in at least 2 tunnel projects ≥4 km.
f) Not more than 65 years.

g) Medical certificate of fitness as per Appendix-B-1.

**Preferential Qualifications:**
a) Certification in safety/health/shot firer/Explosives.
b) At least one training course in past 2 years from IAHE.

**SENIOR GEOLOGIST**
Responsible for geological verification, assisting tunnel design, and monitoring tunnel works.

**Essential Qualifications:**
a) Masters in Geology/Applied Geology.
b) Professional Experience of at least 20 years.
c) At least 7 years in similar capacity in tunnel construction/supervision.
d) At least 5 years of supervision of major tunnel projects in Himalayan region using NATM.
e) Handled at least 2 highway tunnel projects ≥4 km in length.
f) Not more than 65 years.

g) Medical certificate of fitness as per Appendix-B-1.

**Preferential Qualifications:**
a) Handled at least 2 major tunnel projects in project preparation/DPR.
b) Training/certificate course in relevant field.

**RESIDENT CUM PAVEMENT SPECIALIST**
Responsible for reviewing pavement designs, ensuring adherence to standards during construction and O&M.

**Essential Qualifications:**
a) Graduate in Civil Engineering.
b) Professional Experience of at least 12 years.
c) At least 5 years in similar capacity in Construction/Construction Supervision of major highway projects.
d) Experience in at least 2 major highway projects (length ≥40% of project length).

e) Medical certificate of fitness as per Appendix-B-1.

**Preferential Qualifications:**

a) Post Graduate Degree in Highway/Geotechnical/Transportation/Structural Engineering.

b) Experience in Highway project construction/supervision on EPC mode (length ≥40% of project length).

c) At least one training course in past 2 years from IAHE.

# *SUB PROFESSIONAL*

### *SURVEY ENGINEER*

The candidate should be Graduate in Civil Engineering at least 5 years experience or diploma in civil Engineering with 10 years experience in the field of surveying in highway projects and they should have also dealt with at least 2 project of similar nature. This position requires thorough understanding of modern computer based method of surveying with total station digital level etc.

### *ASSISTANT HIGHWAY ENGINEER*

The Candidate should be Graduate in Civil Engineering with minimum 5 year experience or diploma in Civil Engineering with 10 years experience in highway Projects. He should have dealt with atleast 2 project of similar nature.

### *CAD EXPERT*

He should be Graduate in Civil Engineering/Computer Science having experience 3 year experience in computer related design method for highway engineering.

### *ENVIRONMENTAL ENGINEER*

The Candidate should be Graduate in Civil Engineering/Environmental Engineering or other relevant qualification. He should have at least 6 years experience out of which 2 years in highway projects. He should have good knowledge of MOEF guidelines/requirements for mitigation measures.

### *ASSISTANT BRIDGE ENGINEER*

The Candidate should be Graduate in Civil Engineering with minimum 5 year experience or diploma in civil Engineering with 10 years experience in highway Projects. He should havehandled at least 2 major bridge project.

### *ASSISTANT QUALITY CUM MATERIAL ENGINEER*

The Candidate should be Graduate in Civil Engineering with minimum 5 year experience or diploma in civil Engineering with 10 years experience in highway Projects. He should havehandled at least 2 project.

### *ELECTRICAL ENGINEER*

The Candidate should be Graduate in Electrical Engineering from recognised institute. He should have at least 5 years experience.

***HTMS/TOLLING SYSTEM EXPERT***

The candidate should be a Systems Engineer having experience of at least 5 Years.

He should be well versed either in preparation of standards or in implementation of projects of electronic toll collection and ATMS/ITS/HTMS. He should have bachelor's degree in Electronics/Computer Science/IT. He should have knowledge of international latest practices in the field of electronic toll collection (ETC) and ATMS/ITS/HTMS. He should have work experience of either design or implementation on at least 1 ATMS/ITS/HTMS project and at least 1 ETC project in similar capacity.

***QUANTITY SURVEYOR***

He should be Graduate or equivalent in Civil Engineering having Min. 5 years of professional experience or diploma in civil Engineering with 10 years experience in preparation of highway project estimates. He should have Min. 3 years experience in Preparation of Bill of Quantities/estimates for major highway projects costing Rs.300 Crore or above.

***HORTICULTURE CUM LANDSCAPING SPECIALIST***

He should be a Graduate in Agriculture with specialization in Horticulture/Arboriculture having minimum 5 year of field experience in Horticulture/Arboriculture and landscaping. He should have minimum 5 years field experience.

**Lab Technician: -** Graduate in Civil Engineering with one year experience or Diploma in Civil Engineering or B.Sc. with 3 year experience.

Note:- All sub-professionals shall submit medical certificate of fitness before joining

# Section VII: Evaluation/ Scoring Criteria

RFP Document No. RFP No./NH-534(old NH- 119)-UK -2025-26-756(AE); Tender Title: Consultancy Services for Authority Engineer for supervision of Widening to 2LPS From Km 156.900 to Km 175.00 Dugadda to Gumkhal of NH-534 Old NH-119 on EPC Mode in the state of Uttarakhand Under Annual Plan 2025-26.

(Ref ITC-clause 1.4) Consultants must fill up the following Forms regarding this Section:

a) Form T-2: Consultant's Organisation and Experience

b) Form T-2A Technical Capacity

c) Form T-3: Comments and Suggestions on Terms of Reference, Counterpart Staff, and Inputs to be Provided by the Procuring Entity

d) Form T-4: Description of Approach, Methodology and Work Plan in Responding to the Terms of Reference

e) Form T-5: Work Schedule and Planning for Deliverables

f) Form T-6: Team Composition, Assignment, and Key Experts' Inputs

g) Annex to Form T-6: Key Experts' Curriculum Vitae (CV)

The eligibility and evaluation criteria shall be as follows as given in this section below:-

**The points assigned to Technical Evaluation criteria are:**

| S.No. | Description | Marks |
|---|---|---|
| 1 | Relevant experience for the assignment | 25 |
| 2 | Rating of the Firm | 40 |
| 2 | Experience in use of technology for road inspection | 10 |
| 4 | Qualifications and competence of the key staff for the assignment | 25 |
| | **Total** | **100** |

## 1. Sub criteria for Relevant Experience of the firm for the assignment

| | |
|---|---|
| Average Annual Turnover (last 3 years) from consultancy business of civil Engineering Projects (Min 3% of the EPC of Project for which AE has been invited) | 5 |
| No of Highway Professionals with the Firm | 5 |
| Experience as Independent Engineer/Authority Engineer/Construction Supervision in Number of<br>Similar AE bids are requested for highway projects that have the same length as the project length. category for which RFP invited of 2/ 4/6**-laning or more in last 7 years* | 7 |
| Experience in DPR preparation for Number of Highway Projects (of length equal to project length of similar category for which RFP invited of 2/4/6**-laning or more) in last 7 years * | 3 |
| Experience in Construction Supervision as AE/IE/PMC of Major structures having length of more than 500 meter in last 7 years. | 3 |
| Experience preparation of DPR of Major structures having length of more than 500 meter in last 7 years. | 2 |
| Additional requirement in case of specialized projects*** | ** * |

* Consultants should give details of the experience of the firm considering the completed and the on-going highway assignments, separately for PPP and non-PPP Projects along with experience certificates from clients. This list of the completed works should also include those assignments which are substantially (90% of Contract value) completed. No Qualification/Experience etc. shall be considered without proof of experience.

Experience of Authority's Engineer for having offered consultancy services to a private organization shall not be considered as relevant experience for current assignment.

** Similar projects means 2/4/6 lane as applicable for the project for which RFP is invited. For 2-lane projects experience of 4/6 lane also to be considered with a multiplication factor of 1.5. Experience of 4/6 lane shall be considered interchangeably for 4/6 laning projects. For 4/6 laning projects, experience of 2 lane will be considered with a multiplication factor of 0.4, but only for those 2 lane projects whose cost of consultancy services was more than Rs.3.0 crores.

*** In case the project includes any specialized nature of work such as tunnels, specialized structures etc. in substantial quantum, this requirement/Marks may be included by suitably adjusting marks of other attributes.

In case of JV the turnover and experience details of Lead and JV Employer's certificate should be submitted substantiating the experience claimed by the firm.

**2. Sub- Criteria for assessment of rating of the Firm**

| S.No | Rating of the lead Partner | Marks |
|---|---|---|
| 1. | ≥80 | 40 |
| 2. | ≥75 and <80 | 35 |
| 3. | ≥70 and <75 | 30 |
| 4. | ≥65 and <70 | 25 |
| 5. | ≥60 and <65 | 20 |
| 6. | ≥55 and <60 | 15 |
| 7. | Less than 55 | 0 |

For evaluation purpose Rating of the firm published by NHAI shall be considered.

The rating shall be calculated for both JV Members and weighted average shall be used

for calculating the marks of the JV for the purposes of tender evaluation as under:

Share of Lead Partner in JV = S1

Share of Other Partner in JV = S2

Rating of Lead Partner = R1

Rating of Other JV Partner = R2

Weighted Average Rating of both JV Partners = S1 x R1 + S2 x R2

**Note:**

1. For projects with tentative project <= 500 Cr, in case of new entrants as part of JV i.e. JV members with no historical rating, the rating of only the other partner shall be considered as the weighted Average Rating of both JV Partners.

2. Rating of non-substantial partner of JV will not be considered for evaluation

**3. Sub criteria for Ownership of technology/ Equipment for road inspection**

| Sr.No. | Description | Maximum Points | Sub-Points |
|---|---|---|---|
| **1** | **Ownership of Network Survey vehicle technology for pavement inspection** | **2.0** | |

| | | | |
|---|---|---|---|
| **2.** | **Ownership of Mobile Quality Control Unit having Soil Testing, Asphat Testing, Concrete testing, Aggregate Testing and pavement testing equipment onboard along with sufficient IT and communication systems** | **3.0** | |
| **3.** | **Ownership of NABL Acerbated Lab by the firm** | **1.5** | |
| **4.** | **Ownership of Mobile Bridge Inspection Unit or** | **1.5** | |
| | **better technology for bridge inspection** | | |
| **5.** | **Ownership of Falling Weight Reflectometer (FWD) or better technology for pavement strength measurement** | **1.0** | |
| **6.** | **Ownership of Retro reflectometer technology** | **1.0** | |
| | **Total** | **10** | |

**Note: A.** The Authority's Engineer owning the equipment's shall be required to submit proof of ownership.

B. The experience of the JV firms in use of technology shall also be counted in the evaluation. The experience of firm or JV firm in NSV or equivalent technology, FWD or equivalent technology, MBIU or equivalent technology and Retro reflectometer or equivalent technology shall be supported by experience certificate. The experience of a firm/ JV firm for a private concessionaire/ contractor (client) shall be considered certificate by the Govt Department. Any false certification shall attract penal provisions as per contract

**4. Qualification and competence of following professional/sub-professional staff** for the assignment shall be evaluated. The weightage for various key staff are as under:-

**Normal Highway Project:**

| **S. No** | **Staff Position** | **Marks.** |
|---|---|---|
| 1 | Team Leader Cum Senior Highway Engineer | 7 |
| 2 | Resident cum Highway Engineer | 4 |
| 3 | Bridge/Structural Engineer | 3 |
| 4 | Pavement Specialist | 3 |
| 5 | Quality cum Material Expert | 3 |
| 6 | Planning Engineer | 2 |
| 7 | Road safety Expert | 3 |
| | **Total** | **25** |

**Standalone Bridge Project:**

| S. No | Staff Position | Marks. |
|---|---|---|
| 1 | Team Leader Cum Senior Bridge Engineer | 7 |
| 2 | Resident cum Pavement Specialist | 5 |
| 3 | Bridge/Structural Engineer | 5 |
| 5 | Road Safety Expert | 3 |
| 6 | Planning Engineer | 2 |
| 7 | Quality cum Material Expert | 3 |
| | **Total** | **25** |

**Standalone Tunnel Project:**

| S. No | Staff Position | Marks. |
|---|---|---|
| 1 | Team Leader Cum Senior Tunnel Expert | 7 |
| 2 | Resident Engineer cum Excavation Specialist | 4 |
| 3 | Geotechnical Expert | 4 |
| 4 | Tunnel Design Engineer | 3 |
| 5 | Tunnel Safety Expert | 3 |
| 6 | Geologist | 2 |
| 7 | Planning Engineer | 2 |
| | **Total** | **25** |

**Sub criteria for qualification of Key Personnel (i.e. Professional staff)**

| | |
|---|---|
| General qualifications | 25 |
| Adequacy for the project | 70 |
| Employment with firm | 5 |
| Total | 100 |

The technical proposal should score at least 70 points to be considered responsive for financial evaluation.

v) Detailed evaluation criteria which is to be used for evaluation of technical bids is as indicated below as Appendix-EC.

vi) The Bidder should carryout self-evaluation based on the evaluation criteria

at Appendix-EC. While submitting the self-evaluation along with bid, Bidder shall make references to the documents which has been relied upon in his self-evaluation.

vii) Detailed/complete technical evaluation of a bidder shall be made available to that bidder only giving opportunity to the bidder to respond within 7 days in case they have any objection on their evaluation.

viii) The single currency for price conversion is INR. For evaluation of bid proposals, the foreign currency conversation rate of 1US Dollar = Rs. And 1 Euro = Rs. – shall be used.

ix) The weightage given to technical proposal is 60%.The weightage to the Performance Security Quoted by bidder shall be 20% and The weightage given to financial quote is 20%.

**Remarks**: Based on experience and the Consulting Industry's Capacity, Project specific requirement etc., <Agency> may modify the above criteria for Selection of AE.

## Appendix-EC

### 1. Evaluation Criteria for Assessment of Experience of the Firm.

| S. No. | Descriptio n | | | Max. Marks | Reference/Details of projects Claimed for self-assessment | Marks self-assessed by the bidder |
|---|---|---|---|---|---|---|
| 1 | Average Annual Turnover (last 3 years) from consultancy business of civil Engineering Projects<br>< 3% of TPC – 0<br>marks 3% of TPC –<br>3.0 marks<br>Add for additional turnover 0.50 (Zero point five)<br>marks for every 1% of TPC above 3% of TPC subject to maximum 2.0 marks. | | | **5** | | |
| 2. | Nos of Highways Professional with Firm | | | **5** | | |
| | 2.1 | <10 | 0 | | | |
| | 2.2 | 10-20 | 3 | | | |
| | 2.3 | >20 but ≤30 | 4 | | | |
| | 2.5 | >30 | 5 | | | |

*The professionals who possess degree in Civil Engineering/Transport Planning /Transport Economics/Traffic Management / Geology/ Environment Science or Engineering and 8 years experience in highway/bridge /tunnel with employment in the firm for more than

one year. The current Employment Certificate not more than 15 days old shall be uploaded by Key Personnel on INFRACON. The Form 26AS/TCS/TDS certificate of such processionals with the firm shall also be provided in the bid.

| | | | | |
|---|---|---|---|---|
| 3. | Experience as Independent Engineer/Authority Engineer/Construction Supervision/PMC in Number of Highway Projects of length equal to project length for which AE bids are invited of similar category for which RFP invited of 2/ 4/6**-laning or more in last 7 years*<br><br>1 project – 3 marks<br><br>Add 0.5(one) mark extra for completed assignment subject to maximum 4 (Four) | **7** | | |
| 4. | Experience in DPR preparation for Number of Highway Projects (of length 40% of project length of similar category for which RFP invited of 2/4/6**-laning or more) in last 7 years *<br><br>2 project – 2 marks Add 0.5 (Zero point five) marks extra for each additional project subject to maximum 1 mark. | **3** | | |
| 5 | Experience in Construction Supervision as AE/IE/PMC of Major structures having length of more than 500 meter in last 7 years.<br><br>2 project – 1.0 marks Add 0.5 (Zero point five) marks extra for each additional project subject to maximum<br><br>2.0 marks | **3** | | |
| 6 | Experience in Preparation of DPR of Major structures having length of more than 500 meter in last 7 years.<br><br>2 project – 1.0 marks Add 0. 5 (Zero point two five) marks extra for each additional project subject to maximum<br><br>1.0 marks | **2** | | |
| 7 | Additional requirement in case of specialized projects*** | *** | | |

Note 1: In case of JV the turnover and experience details of Lead and JV partners to be added.

Note 2: Employer's certificate/ certificate from Statutory Auditor should be submitted substantiating the experience/turnover claimed by the firm.

Note 3: ** For 4/6 laning projects, experience of 2 lane will be considered with a multiplication factor of 0.4, but only for those 2 lane projects whose cost of consultancy services was more than Rs.3.0 crores.

*** In case the project includes any specialized nature of work such as tunnels, specialized structures etc. in substantial quantum, this requirement/Marks may be included by suitably adjusting marks of other attributes.

**1A. Evaluation Criteria for assessment of rating of the Lead Firm**

| **S.No** | **Rating of the lead Partner** | **Marks** |
|---|---|---|
| 1. | ≥80 | 40 |
| 2. | ≥75 and <80 | 35 |
| 3. | ≥70 and <75 | 30 |
| 4. | ≥65 and <70 | 25 |
| 5. | ≥60 and <65 | 20 |
| 6. | ≥55 and <60 | 15 |
| 7. | Less than 55 | 0 |

For evaluation purpose Rating of the firm published by NHAI shall be considered . The rating shall be calculated for both JV Members and weighted average shall be used for calculating the marks of the JV for the purposes of tender evaluation as under:

Share of Lead Partner in JV = S1

Share of Other Partner in JV = S2

Rating of Lead Partner = R1

Rating of Other JV Partner = R2

Weighted Average Rating of both JV Partners = S1 x R1 + S2 x R2

**Note:** For projects with tentative project <= 500 Cr, in case of new entrants as part of JV i.e. JV members with no historical rating, the rating of only the other partner shall be considered as the weighted Average Rating of both JV Partners.

## 2. Evaluation Criteria for assessment of experience in use of technology for road inspection

| S.No. | Description | Maximum Point | Reference/ details of projects Claimed for self-assessment | Marks self-assessed by the bidder |
|---|---|---|---|---|
| 1 | **Ownership of Network Survey vehicle**<br>**technology for pavement inspection** | **2.0** | | |
| 2. | **Ownership of Mobile Quality Control Unit having Soil Testing, Asphat Testing, Concrete testing, Aggregate Testing and pavement**<br>**testing equipment onboard along with sufficient IT and communication systems** | **3.0** | | |
| 3. | **Ownership of NABL Acerbated Lab by the firm** | **1.5** | | |
| 4. | **Ownership of Mobile Bridge Inspection Unit or better technology for bridge inspection** | **1.5** | | |
| 5. | **Ownership of Falling Weight Reflectometer (FWD) or better**<br>**technology for pavement strength measurement** | **1.0** | | |
| 6. | **Ownership of Retro reflectometer technology** | **1.0** | | |
| | **Total** | **10** | | |

Notes:

(i) The Consultants owning the equipment shall be required to submit proof of ownership.

### 3.1 Team Leader cum Senior Highway Engineer

| S. No. | Description | | Max. Points | Reference/Details of projects Claimed for self-assessment | Marks self-assessed by the bidder |
|---|---|---|---|---|---|
| **1** | **General Qualification** | | **25** | | |
| i) | Graduate in Civil Engineering | 17 | | | |
| ii) | Post-Graduation in Management/ Construction/ Transportation/Highway Engineering/Structural Engineering or equivalent specialized stream of civil Engineering | 03 | | | |
| iii) | Minimum 15 days training course from IAHE/CRRI / Govt institute in any filed related to Highway development | 03 | | | |
| iv) | **Essential Software Experience- (MS Roads/ Projects, Prima Vera or other relevant software )** | 2 | | | |
| **2** | **Adequacy for the Project** | | **70** | | |
| **a)** | **Professional Experience in Highway Projects:** | | | | |
| i) | Total Professional Experience in handling Highway projects<br>< 15 years -0<br>15 years -8 marks<br>Add 1 mark extra for each additional year of experience subject to maximum 7 (seven) marks. | | 15 | | |

| | | | | |
|---|---|---|---|---|
| ii) | Experience as Team Leader or similar capacity in Highway Development Projects (similar configuration (2/4/6 laning**) and above)<br>< 5 years -0<br>5 years -11 marks<br>Add 1 marks extra for each additional year of experience subject to maximum 4 (four) marks. | 15 | | |
| iii) | Experience as Team Leader or similar capacity in Highway Development projects (of length40%of project length or more of similar configuration (2/4/6 laning**) and above) on EPC<br>1 project -3 marks add 1 mark extra for additional projects subject to maximum2 (two) mark | 5 | | |
| b) | Experience as Team Leader or similar capacity of project Preparation including design of major highway Project (of length40% project length or more of similar configuration (2/4/6 laning**) and above).<br>< 2 projects -0<br>2 Projects -8 marks<br>Add 1 marks for each additional project subject to maximum 2 marks. | 10 | | |
| c) | Experience in position of Team Leader/Project Manager or similar capacity in Construction Supervision/IC involving length 40%project length or more of similar configuration (2/4/6** laning) and above<br>< 2 projects – 0<br>2 Projects – 16 marks<br>Add 2 marks extra for each additional project subject to maximum 4 (four) marks | 20 | | |

| | | | | |
|---|---|---|---|---|
| d) | Experience as Team Leader or similar capacity in Operation and Maintenance of Major Highway (of length 40% project length or more of similar configuration (2/4/6 laning**) and above).<br>1 project – 4 marks<br>Add 1 mark extra for each additional project subject to maximum 1 (one) mark | 5 | | |
| **3** | Employment with the Firm<br>< 1 year -0<br>1 year – 3 marks<br>Add 0.5 marks for each subsequent year subject to maximum 2 marks | **5** | | |
| | **Total :** | **100** | | |

**Note:**

(1) Similar Capacity includes the following positions

i) On behalf of Consultant: Team Leader/Resident Engineer (Construction Supervision/IE/AE/DPR).

ii) On behalf of Contractor: Project Manager (Construction/Construction Supervision)

iii) In Government Organizations: Superintending Engineer (or equivalent) and above

(2) Only those projects will be considered for evaluation at S. No. 2(b) where the input of the personnel is not < 9 months.

(3) Only those projects will be considered for evaluation at S. No. 2(c ) and 2 (d) where the input of the personnel is not < 12 months.

(4) In case of experience on behalf of Authority's Engineer or Contractor, the experience shall be duly endorsed by the respective Government agency. In case of non-availability of endorsement from Govt. Agency, the experience uploaded on INFRACON Portal will be taken into consideration. However, the key personnel/ bidder will be solely responsible for any fake information/ CV, which may result in debarment.

### 3.2 Resident cum Highway Engineer

| S. No. | Description | | Max. Points | Reference/Details of projects Claimed for self - assessment | Marks self-assessed by the bidder |
|---|---|---|---|---|---|
| **1** | **General Qualification** | | **25** | | |
| i) | Graduate in Civil Engineering | 17 | | | |
| ii) | Post-Graduation in Construction management/ Transportation/Highway Engineering/ Structural Engineering / Geotechnical Engineering or equivalent specialized stream of civil engineering | 03 | | | |
| iii) | Minimum 15 days training certificates from IAHE/CRRI or any Govt Institute | 03 | | | |
| iv) | **Essential Software Experience- (MS Roads/ Projects, Prima Vera or other relevant software)** | 2 | | | |
| **2** | **Adequacy for the Project** | | **70** | | |
| | **Professional Experience** | | | | |
| i) | Total Professional Experience in handling Highway projects<br>< 12 years -0<br>12 years -12 marks<br>Add 1 mark extra for each additional year of experience subject to maximum 3 (three) marks. | | 15 | | |
| ii) | Experience as Resident Engineer/Highway Engineer/Project Director/Project Manager/Superintending Engineer or equivalent/Executive Engineer or equivalent on construction works/Authority Engineer/Independent Engineer Projects (similar configuration (2/4/6 laning*)and above).<br>< 5 years -0; 5 years -15 marks | | 20 | | |

| | | | | |
|---|---|---|---|---|
| | Add 1 marks extra for each additional year of experience subject to maximum 5 (five) marks. | | | |
| iii) | Experience in similar capacity in handling major 2/4/6-laning** projects (of length 40% of project length or more of similar configuration (2/4/6 laning**) and above)<br>< 2 nos. -0<br>1 nos. -19 marks<br>Add three marks extra for each additional project subject to maximum 6 (Six) marks. | 25 | | |
| iv) | Experience in similar capacity of Highway Project of Construction/Construction Supervision/IC on EPC Mode(of length 40% of project length or more of similar configuration (2/4/6 laning**) and above)<br>1 Project- 4 marks<br>Add 1 (one) mark extra for each additional project subject to maximum 1 (one) mark | 5 | | |
| v) | Experience as RE or similar capacity in Operation and Maintenance of Major Highway (of length 40% of project length or more of similar configuration (2/4/6 laning**) and above).<br>1 project – 4 marks<br>Add 1 mark extra for each additional project subject to<br>maximum 1 (one) mark | 5 | | |
| **3** | Employment with the Firm<br>< 1 year -0<br>1 year – 3 marks | **5** | | |
| | Add 0.5 marks for each subsequent year subject to maximum 2 marks | | | |
| | **Total :** | **100** | | |

**Note:**

(1) Similar Capacity includes the following positions

i) On behalf of Consultant: Resident / Highway Engineer

ii) On behalf of Contractor: Resident Engineer/ Highway Engineer / Project Manager (Construction/Construction Supervision)

iii) In Government Organizations: Executive Engineer (or equivalent) and above

(2) Only those projects (in numbers) will be considered for evaluation above, where the input of the personnel is not < 12 months

(3) In case of experience on behalf of Authority's Engineer or Contractor, the experience shall be duly endorsed by the respective Government agency. In case of non-availability of endorsement from Govt. Agency, the experience uploaded on INFRACON Portal will be taken into consideration. However, the key personnel/ bidder will be solely responsible for any fake information/ CV, which may result in debarment.

### 3.3 Bridge/Structural Engineer

| S. No. | Description | | Max. Points | Reference/Details of projects Claimed for self-assessment | Marks self-assessed by the bidder |
|---|---|---|---|---|---|
| **1** | **General Qualification** | | **25** | | |
| i) | Graduate in Civil Engineering | 18 | | | |
| ii) | Post-Graduation in Structural Engineering | 04 | | | |
| iii) | training in residential training programme on Collapse/failure of bridges/structures from IAHE/CRRI/ any other Govt Institute | 03 | | | |
| **2** | **Adequacy for the Project** | | **70** | | |

| | | | | |
|---|---|---|---|---|
| i) | Total Professional Experience in handling Highway/Bridge projects<br>< 10 years -0<br>10 years -11 marks<br>Add one mark extra for each additional 2 year subject to maximum 4(four) marks | 15 | | |
| ii) | Experience in similar capacity in Design/Construction/Construction Supervision of Bridges/ROB/Flyover/Interchanges/any other such structures (similar configuration (2/4/6 laning**) and above)<br>< 5 years -0;<br>5 years -15 marks<br>Add 1 (one) mark extra for each additional<br>completed year of experience subject to maximum 5(five) marks | 20 | | |
| iii) | Experience in similar capacity in supervision of Major Highway Bridges/ROB/Flyover/ Interchanges/ any other structures<br>< 2 Bridges -0<br>02 Bridge -15 marks<br>Add 2.5 mark extra for each additional bridge subject to maximum 5 marks | 20 | | |
| iv) | Experience in similar capacity in supervision of Rehabilitation and repair of Major Bridges/ROB/Flyover/ Interchanges/ any other structures<br>< 2 nos. – 0<br>2 nos. -8 marks<br>> 3 nos.- 10 | 10 | | |

| | | | | |
|---|---|---|---|---|
| v) | Experience in similar capacity of modern bridge construction technology viz., Precast Segmental, Balanced Cantilever Construction, Extra dosed Bridge, Full Span Launching, Incremental Launching. | 5 | | |
| | Experience in 1 project – 4 marks<br>More than one project – 5 marks | | | |
| **3** | **Employment with the Firm**<br>< 1 year -0<br>1 year -3 marks<br>Add 0.5 marks for each subsequent year subject to maximum 2 marks | **5** | | |
| | **Total :** | **100** | | |

**Note:**

(1) Similar Capacity includes the following positions

i) On behalf of Consultant/Contractor: Bridge Engineer/Project Manager (Bridges)/ Resident Engineer (Bridge)

ii) On behalf of Government: Executive Engineer

(2) Only those projects (in numbers) will be considered for evaluation above, where the input of the personnel is not < 12 months

(3) In case of experience on behalf of Authority's Engineer or Contractor, the experience shall be duly endorsed by the respective Government agency. In case of non-availability of endorsement from Govt. Agency, the experience uploaded on INFRACON Portal will be taken into consideration. However, the key personnel/ bidder will be solely responsible for any fake information/ CV, which may result in debarment.

### 3.4 Senior Pavement Specialist

| S. No. | Description | | Max. Points | Reference/Details of projects Claimed for self-assessment | Marks self-assessed by the bidder |
|---|---|---|---|---|---|
| **1** | **General Qualification** | | **25** | | |
| I) | Graduate in Civil Engineering | 18 | | | |

| | | | | | |
|---|---|---|---|---|---|
| II ) | Post-Graduation in Transportation/Highway Engineering/Pavement engineering or Equivalent | 04 | | | |
| iii ) | Training certificate from IAHE /CRRI or any other Govt Institute in design/ maintained of pavement | 03 | | | |
| **2** | **Adequacy for the Project** | | **70** | | |
| | **Professional Experience** | | | | |
| i) | Total Professional Experience of Pavement Design/Construction and Maintenance of Highways/Roads/Air Field Runway<br>< 10 years -0<br>10 years -15 marks<br>Add one mark extra for each additional year of experience subject to maximum 5 (five) marks. | | 20 | | |
| ii) | Experience in Similar capacity in Construction/Construction Supervision of 2/4/6-laning** of major Highway Projects (similar configuration (2/4/6 laning**) and above)<br>< 5 years -0; 5 years -15 marks<br>Add one mark extra for each additional year of experience subject to maximum 5 (five) marks. | | 20 | | |
| iii) | Experience in similar capacity as Pavement/Geo-technical Engineer in construction/ construction supervision of Major Highway projects (of length 40% of project length or more of similar configuration(2/4/6 laning**) and above)<br>< 2 nos. -0<br>2 nos. -20 marks<br>Add 2.5 marks extra for each additional project subject to maximum 5 marks. | | 25 | | |

| | | | | |
|---|---|---|---|---|
| iv) | Experience in similar capacity on EPC Projects (of length 40% of project length or more of similar configuration (2/4/6 laning**) and above)<br>1 Project- 4 marks<br>Add 1 (one) mark extra for each additional project subject to maximum 1 (one) mark | 5 | | |
| **3** | Employment with the Firm<br>< 1 year -0<br>1 year – 3 marks<br>Add 0.5 marks for each subsequent year subject to maximum 2 marks | **5** | | |
| | **Total :** | **100** | | |

**Note:**

(1) Similar Capacity includes the following positions

i) On behalf of Consultant/Contractor: Pavement Specialist/ Pavement Engineer/ Pavement Expert / Highway Engineer

ii) On behalf of Government: Executive Engineer

(2) Only those projects (in numbers) will be considered for evaluation above, where the input of the personnel is not < 6 months

(3) In case of experience on behalf of Authority's Engineer or Contractor, the experience shall be duly endorsed by the respective Government agency. In case of non-availability of endorsement from Govt. Agency, the experience uploaded on INFRACON Portal will be taken into consideration. However, the key personnel/ bidder will be solely responsible for any fake information/ CV, which may result in debarment.

### 3.5 Senior Quality/Material Expert

| S. No. | Description | | Max. Points | Reference/Details of projects Claimed for self-assessment | Marks self-assessed by the bidder |
|---|---|---|---|---|---|
| **1** | **General Qualification** | | **25** | | |
| | I) Graduate in Civil Engineering | 18 | | | |

| | | | | | |
|---|---|---|---|---|---|
| | II) Post Graduation in Geotechnical<br>Engineering/ Foundation Engineering/ Soil Mechanics/ Rock Mechanics | 04 | | | |
| | 16 days material testing process course imparted by Indian Academy<br>of Highway Engineers or CRRI or any other Govt Institute | **03** | | | |
| **2** | **Adequacy for the Project** | | **70** | | |
| | **Professional Experience** | | | | |
| i) | Total Professional Experience in handling Highway/Bridge projects<br>< 10 years -0<br>10 years -11<br>Add one mark extra for each additional year of experience subject to maximum 4 (four) marks. | | 15 | | |
| ii) | Experience in similar capacity in Construction/Construction Supervision of major Highway Projects ((similar configuration (2/4/6 laning**) and above))<br>< 5 years -0; 5 years -19<br>Add 2.0 (two) marks extra for each additional year of experience subject to maximum 6 (Six) marks. | | 25 | | |
| iii) | Experience in similar capacity in handling Similar Highway projects (of length 40% of project length or more of similar configuration (2/4/6 laning**) and above)<br>< 2 nos. -0<br>2 nos. - 25<br>Add 2.5 marks extra for each additional project subject to maximum 5 (five) marks. | | 30 | | |

| | | | | |
|---|---|---|---|---|
| **3** | Employment with the Firm<br>< 1 year – 0<br>1 year – 3<br><br>Add 0.5 marks for each subsequent year subject to maximum 2 marks | **5** | | |
| | **Total :** | **100** | | |

**Note:**

(1) Similar Capacity includes the following positions

i) On behalf of Consultant/Contractor: Quality Expert/ Material Engineer/Material Expert/ Quality Engineer/ Geo-Technical Expert.

ii) On behalf of Government: Executive Engineer

(2) Only those projects (in numbers) will be considered for evaluation above, where the input of the personnel is not < 12 months

(3) In case of experience on behalf of Authority's Engineer or Contractor, the experience shall be duly endorsed by the respective Government agency. In case of non-availability of endorsement from Govt. Agency, the experience uploaded on Infracon Portal will be taken into consideration. However, the key personnel/ bidder will be solely responsible for any fake information/ CV, which may result in debarment.

### 3.6 Road Safety Expert

| S. No. | Description | | Max. Points | Reference/ Details of projects Claimed for self-assessment | Marks self-assessed by the bidder |
|---|---|---|---|---|---|
| **1** | **General Qualification** | | **25** | | |
| I) | Graduate in Civil Engineering | 18 | | | |
| II) | Post-Graduation in Traffic/ Transportation/ Safety Engineering or equivalent | 04 | | | |
| | 15 days Certificate course on Road Safety Audit from IAHE/CRRI/ or any other Govt institute | 03 | | | |
| **2** | **Adequacy for the Project** | | **70** | | |

| | | | | |
|---|---|---|---|---|
| | **Professional Experience** | | | |
| i) | Total Professional Experience in handling Highway/Bridge projects<br><br>< 10 years -0<br><br>10 years -11 marks<br><br>Add one mark extra for each additional year of experience subject to maximum 4 (four) marks. | 15 | | |
| ii) | Experience in similar capacity in Road Safety works on Major Highway Project (similar configuration (2/4/6 laning**) and above).<br><br>< 5 years -0<br><br>5 years -11 marks<br><br>Add one mark extra for each additional year of experience subject to maximum 4 (four) marks. | 15 | | |
| iii) | Experience in similar capacity in Road Safety Audits of 2/4/6-laning** Highway projects at different stages including at least one at design stage<br><br>< 2 nos. -0<br><br>2 nos. -15 marks<br><br>Add 2.5 marks extra for each additional project subject to maximum 5 marks. | 20 | | |
| iv) | Experience in similar capacity in identification and improvement of black spots on Major Highway Project (similar configuration (2/4/6 laning**) and above)<br><br>< 2 nos. -0<br><br>2 nos. -8 marks<br><br>Add 2 marks extra for each additional improvement of black spots subject to maximum 2 marks. | 10 | | |
| v) | Experience in similar capacity of preparing Road Safety Management Plans for Inter Urban Highway<br><br>1 project -4 marks<br><br>2 or more -5 marks | 5 | | |

| | | | | |
|---|---|---|---|---|
| vi) | Experience in similar capacity in field of Road Safety Management Plan<br>1 project -4 marks<br>2 or more -5 marks | 5 | | |
| **3** | Employment with the Firm<br><1 year- 0<br>1 year – 3 marks<br>Add 0.5 marks for each subsequent year subject to maximum 2 marks | **5** | | |
| | **Total :** | **100** | | |

*Note:*

(1) Similar Capacity includes the following positions

i) On behalf of Consultant/Contractor: Road Safety Expert

ii) In Government Organizations: Executive Engineer (or equivalent) and above

(2) Only those projects (in numbers) will be considered for evaluation above, where the input of the personnel is not < 6 months

(3) **For claiming experience of Sr. No. 2 (iv)- Experience in similar capacity in identification and improvement of black spots on Major Highway Project, the blackspot ids rectified may be provided on the INFRACON.**

### 3.7 Team Leader cum Senior Bridge Engineer:

| ~~S. No.~~ | ~~Description~~ | | ~~Max. Points~~ | ~~Reference/Details of projects Claimed for self-assessment~~ | ~~Marks self-assessed by the bidder~~ |
|---|---|---|---|---|---|
| ~~1~~ | ~~General Qualification~~ | | ~~25~~ | | |
| ~~i)~~ | ~~Graduate in Civil Engineering~~ | ~~17~~ | | | |
| ~~ii)~~ | ~~Post Graduation in /Structural Engineering or equivalent specialised stream of civil engineering~~ | ~~03~~ | | | |
| ~~iii)~~ | ~~training programme on Collapse/failure of bridges/structures or bridge~~ | ~~03~~ | | | |

| | | | | | |
|---|---|---|---|---|---|
| | design from IAHE/ any other Govt Institute | | | | |
| iv) | **Essential Software Experience (MS Roads/ Projects, Prima Vera or other relevant software)** | 02 | | | |
| **2** | **Adequacy for the Project** | | **70** | | |
| **a)** | **Professional Experience in Bridge Projects:** | | | | |
| i) | Total Professional Experience in handling Bridge projects<br>< 15 years -0<br>15 years -12 marks<br>Add 1 mark extra for each additional year of experience subject to maximum 3 (three) marks. | | 15 | | |
| ii) | Experience as Team Leader or similar capacity in Highway Development projects of(similar configuration (2/4/6 laning**) and above)<br>< 5 years -0<br>5 years -8 marks<br>Add 1 marks extra for each additional year of experience subject to maximum 2 (two) marks. | | 10 | | |
| iii) | Experience as Team Leader or similar capacity in Highway Development projects (of length 40% of project length or more of similar configuration (2/4/6 laning**) and above)<br>1 project -4 marks add 1 mark extra for<br>additional projects subject to maximum1 (one) mark | | 5 | | |

| | | | | |
|---|---|---|---|---|
| b) | Experience as Team Leader or similar capacity of at least Two projects in Construction Supervision / AE/ IE/ Project preparation involving at least one Major Bridge (minimum 300 m length without approaches) in the Project (40% of project length or more of similar configuration (2/4/6 laning**)<br><br>< 2 projects -0<br><br>2 Projects -20 marks<br><br>Add 5 marks for each additional project subject to maximum 10 marks. | 30 | | |
| c) | Experience as Team Leader/Project Manager or similar capacity in Operation and Maintenance of Major Bridge (minimum 300 m length without approaches) in the Project (of 40% of project length or more of similar configuration (2/4/6 laning**)<br><br>1 project – 8 marks<br><br>Add 1 mark extra for each additional project subject to maximum 2 (two) mark | 10 | | |
| **3** | Employment with the Firm<br><br>< 1 ye ar -0<br><br>1 year – 3 marks<br><br>Add 0.5 marks for each subsequent year subject to maximum 2 marks | **5** | | |
| | **Total :** | **100** | | |

(5) Similar Capacity includes the following positions

i) On behalf of Consultant: Team Leader( Bridge)/ Resident Engineer (Bridge) (Construction Supervision/IE/AE/DPR).

ii) On behalf of Contractor: Project Manager( Bridge) (Construction/Construction Supervision)

iii) In Government Organizations: Superintending Engineer (or equivalent) and above

### 3.8 Resident cum Pavement Specialist

| S. No. | Description | | Max. Points | Reference/Details of projects Claimed for self-assessment | Marks self-assessed by the bidder |
|---|---|---|---|---|---|
| 1 | General Qualification | | 25 | | |
| i) | Graduate in Civil Engineering | 17 | | | |
| ii) | Post Graduation in Transportation/Highway Engineering/Structural Engineering/Geotechnical Engineering | 03 | | | |
| iii) | Training programme from IAHE/CRRI or any other Govt Institute in Highway/Pavement | 03 | | | |
| iv) | **Essential Software Experience (MS Roads/ Projects, Prima Vera or other relevant software )** | 02 | | | |
| 2 | Adequacy for the Project | | 70 | | |
| | Professional Experience | | | | |
| i) | Total Professional Experience in handling Highway projects<br>< 12 years -0<br>12 years -16 marks<br>Add 2 mark extra for each additional year of experience subject to maximum 4 (four) marks. | | 20 | | |

| | | | | |
|---|---|---|---|---|
| ~~ii)~~ | ~~Experience as Resident Engineer/Project Director/Project Manager/Superintending Engineer or equivalent/Executive Engineer or equivalent on construction works/Authority Engineer/Independent Engineer Projects (similar configuration (2/4/6 laning*) and above).~~<br><br>~~< 5 years -0; 5 years -15 marks~~<br><br>~~Add 1 marks extra for each additional year of experience subject to maximum 5 (five) marks.~~ | ~~20~~ | | |
| ~~iii)~~ | ~~Experience in similar capacity in handling major 2/4/6 laning** projects (of length 40% of project length or more of similar configuration (2/4/6 laning**) and above)~~<br><br>~~< 2 nos. -0~~<br><br>~~2 nos. -19 marks~~<br><br>~~Add three marks extra for each additional project subject to maximum 6 (Six) marks.~~ | ~~25~~ | | |
| ~~iv)~~ | ~~Experience in similar capacity of Highway Project of Construction/Construction Supervision on EPC Mode (of length 40% of project length or more of similar configuration(2/4/6 laning**) and above)~~<br><br>~~1 Project- 4 marks~~<br><br>~~Add 1 (one) mark extra for each additional project subject to maximum 1 (one) mark~~ | ~~5~~ | | |
| ~~3~~ | ~~Employment with the Firm~~<br><br>~~< 1 year -0~~<br><br>~~1 year - 3 marks~~<br><br>~~Add 0.5 marks for each subsequent year subject to maximum 2 marks~~ | ~~5~~ | | |
| | ~~Total :~~ | ~~100~~ | | |

Note:

(1) Similar Capacity includes the following positions
i) On behalf of Consultant: Resident / Pavement specialist/ Pavement Engineer.
iii) In Government Organizations: Executive Engineer (or equivalent) and above.

*3.9 Planning Engineer*

| S. No. | Description | | Max. Points | Reference /Details of projects Claimed For self-assessment | Marks self-assessed by the bidder |
|---|---|---|---|---|---|
| **1** | **General Qualification** | | **25** | | |
| I) | Graduate in Civil Engineering | 17 | | | |
| II) | PG In construction Management/Project Management/Infrastructure Development & Management | 03 | | | |
| iii) | Training programme on Project Management/ project planning from IAHE/CCRI/ any other Govt Institute | 03 | | | |
| iv) | **Essential Software Experience- (MS Roads/ Projects, Prima Vera or other relevant software )** | 02 | | | |
| **2** | **Adequacy for the Project** | | **70** | | |
| | **Professional Experience** | | | | |
| i) | Total Professional Experience of Project Management/ planning Engineer.<br>< 15 years -0<br>15 years -15 marks<br>Add one mark extra for each additional year of experience subject to maximum 5 (five) marks. | | **20** | | |
| ii) | Experience as Project Manager/ Planning Engineer on any National/State Highway project.<br>< 4 years -0<br>4 years -15 marks<br>Add one mark extra for each additional year of experience subject to maximum 5 (five) marks. | | **20** | | |

| | | | | |
|---|---|---|---|---|
| iii) | Project Management/ Planning Engineer of a large Highway contract say over Rs.150 crore including experience of handling variation orders, claims of the contractor and there appropriate disposal<br>< 2 nos. -0<br>2 nos. -10<br>Add 2.5 marks extra for each additional project subject to maximum 5 (five) marks. | **15** | | |
| iii) | Planning Engineer of a large Highway Project say over Rs.150 crore including experience of handling variation orders, EOT and there appropriate disposal<br>< 2 nos. -0<br>2 nos. -50<br>Add 2.5 marks extra for each additional project subject to maximum 5 (five) marks. | **10** | | |
| v) | Experience of Handling Arbitration cases in respect of any Highway project.<br>1 project -4 marks<br>2 or more projects-5 marks | **5** | | |
| **3** | Employment with the Firm<br><1 year- 0<br>1 year – 3 marks<br>Add 0.5 marks for each subsequent year subject to maximum 2 marks | **5** | | |
| | **Total :** | **100** | | |

Note:

(1) Similar Capacity includes the following positions

i) On behalf of Consultant/ Contractor: Construction Manager/ Planning Engineer.

iii) In Government Organizations: Executive Engineer (or equivalent) and above.

### 3.10 Team Leader cum Senior Tunnel Expert:

| S. No. | Descriptio n | | Max. Points | Reference /Details of projects Claimed forself- assessment | Marks self- assessed by the bidder |
|---|---|---|---|---|---|
| 1 | General Qualification | | 25 | | |
| I) | Graduate in Civil/Mining Engineering or equivalent | 18 | | | |
| II) | Post Graduate or chartered engineer in Mining Engineering/ Geotechnical Engineering /Structural Engineering/Rock Mechanics or equivalent | 04 | | | |
| | Attended Minimum 5 days training on tunnel from IAHE/ITA/ any other Govt institute | 03 | | | |
| 2 | Adequacy for the Project | | 70 | | |
| | Total Professional Experience | | | | |
| | < 20 years -0<br>20years -5 marks<br>Add one mark extra for each additional year of experience subject to maximum 2 (Two) marks. | | 7 | | |
| | Total professional experience in handling major tunnelling projects<br><15 years – 0 marks<br>15 years – 6 marks<br>Add 1 mark extra for each additional year of experience subject to maximum 2 (two) marks. | | 8 | | |
| a<br>iii) | Experience in major tunnel construction/construction supervision projects (Road/Rail/Metro)<br><10 years – 0 marks<br>10 years – 7 marks<br>Add 1.5 marks extra for each additional year of experience subject to maximum 3 marks. | | 10 | | |
| b | Experience in Similar Capacity | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | | ~~Experience as Team Leader or similar capacity in Construction~~<br><br>~~supervision of major tunnel projects (Road/Rail/Metro) of length40% of Project length or more than 1.5 km, whichever is More~~<br><br>~~<5 years – 0 marks~~<br><br>~~5 years – 7 marks~~<br><br>~~Add 1.5 marks extra for each additional year of experience subject to maximum 3 marks~~ | ~~10~~ | | |
| | ~~b ii)~~ | ~~Experience as Team Leader or similar capacity of project Preparation/Design of tunnel projects(Road/Rail/Metro) of length 40% of project length or 1.5 km whichever is more~~<br><br>~~1 Project – 8 marks~~<br><br>~~Add 1 mark extra for each additional projects subject to maximum 2 marks.~~ | ~~10~~ | | |
| | ~~b iii)~~ | ~~Experience as Team Leader or similar capacity in construction supervision of tunnels (Road/Rail/Metro) of 40% of project lenth or 1.5 km whichever is more~~<br><br>~~<2 project -0 marks~~<br><br>~~2 Projects – 15 marks~~<br><br>~~Add 1.25 mark extra for each additional projects subject to maximum 5(five) marks.~~ | ~~20~~ | | |
| ~~C)~~ | | ~~Experience in project preparation/ design of major tunnel projects apart from those under 2 (b) (ii)~~<br><br>~~(Road/Rail/Metro) 1 project -4~~<br>~~Marks~~<br><br>~~2 or more -5 marks~~ | ~~5~~ | | |
| ~~3~~ | | ~~Employment with the Firm~~<br><br>~~<1 year- 0~~<br><br>~~1 year – 3 marks~~<br><br>~~Add 0.5 marks for each subsequent year subject to maximum 2 marks~~ | ~~5~~ | | |
| | | ~~Total :~~ | ~~100~~ | | |

Note: As per RFP, Definition of Team Leader includes Team Leader includes Project Manager(tunnels)/ Resident Engineer (Tunnel)/ **Tunnel Engineer/** or any equivalent position.

** tunnel projects, unless specifically mentioned, to be considered for evaluation has to be major tunnels of length equal to or more than 1.5 Km. For project having length less than 1.5 km, the requirement of length of tunnel project may be changed to 40% of project length or min 500 m whichever is more.

### 3.11 Resident cum Tunnel Excavation Expert:

| S. No. | Description | | Max. Points | Reference /Details of projects Claimed forself-assessment | Mark self-assessed by the bidder |
|---|---|---|---|---|---|
| 1 | General Qualification | | 25 | | |
| I) | Graduate in Civil/Mining Engineering or equivalent | 18 | | | |
| II) | Post-Graduate or chartered engineer in civil/Mining Engineering or equivalent | 04 | | | |
| | Attended Minimum 5 days training on tunnels from IAHE/ITA/ any other Govt institute | 03 | | | |
| 2 | Adequacy for the Project | | 70 | | |
| | Total Experience | | | | |
| a i) | <15 years – 0<br>15 years – 12 marks<br>Add 1 mark extra for each additional year of experience subject to maximum 3 (three) marks. | | 15 | | |
| A ii) | Total professional experience in handling major tunneling projects<br>< 10 years – 0<br>10 years – 7 marks<br>Add 1.5 marks extra for each additional year of experience subject to maximum 3 (three) marks. | | 10 | | |
| b | Experience in Similar Capacity | | | | |

| | | | | |
|---|---|---|---|---|
| b i) | Experience as Tunnel Engineer/Tunnel Excavation Expert or similar capacity in construction supervision of major tunneling projects<br><br>(Road/Rail/Metro)<br><br>< 7 years – 0<br><br>7 years – 7 marks<br><br>Add 1.5 marks extra for each additional year of experience subject to maximum 3 (three) marks. | 10 | | |
| b ii) | Experience as Tunnel Engineer/ Tunnel Excavation Expert or similar capacity in construction supervision of tunnel projects (Road/Rail/Metro) of minimum length of 40% of Project length or 1.5 km whichever is more (Minimum one year supervision in a project)<br><br>< 2 projects – 0<br><br>2 projects – 15 marks<br><br>Add 2.5 marks extra for each additional projects subject to 5 (five) marks. | 20 | | |
| b iii) | Experience in tunnel design/ DPR/ preparation / feasibility study/design review involving major tunnel projects (Road/Rail/Metro) of 40% of Project length or 1.5 km whichever is more (minimum 1 year experience in a project)<br><br>1 project – 7 marks<br><br>Add 1 mark extra for each additional projects subject to maximum 3 (three) marks | 10 | | |
| C) | Experience in construction of major tunnel projects (Road/Rail/Metro) apart from those under 2 (b) (ii)<br><br>1 project – 3 marks<br><br>Add 1 mark extra for each additional projects subject to maximum 2 (two) marks. | 5 | | |
| **3** | Employment with the Firm<br><br><1 year- 0<br><br>1 year – 3 marks<br><br>Add 0.5 marks for each subsequent year subject to maximum 2 marks | **5** | | |
| | **Total :** | **100** | | |

Note:- Max Age = 65 Years

** tunnel projects, unless specifically mentioned, has to be major tunnels of length equal to or more than 1.5 Km to be considered for evaluation. For project having length less than 1.5 km, the requirement of length of tunnel project may be changed to 40% of project length or min 500 m whichever is more.

### *3.12 TUNNEL DESIGN ENGINEER:*

| S. No. | Description | | Max. Points | Reference /Details of projects Claimed forself-assessment | Marks self-assessed by the bidder |
|---|---|---|---|---|---|
| 1 | General Qualification | | 25 | | |
| I) | Graduate in Civil Engineering or equivalent | 18 | | | |
| II) | Post Graduate in Engineering (Structural) | 04 | | | |
| | Attended Minimum 5 days training on tunnel from IAHE/ITA/ any other Govt institute | 03 | | | |
| 2 | Adequacy for the Project | | 70 | | |
| | Total Professional Experience | | | | |
| a i) | <20 years – 0<br>20 years – 11 marks<br>Add 1 mark extra for each additional year of experience subject to maximum 4 (four) marks. | | 15 | | |
| ii) | Total Professional Experience in handling major Tunnel projects<br><12 years – 0<br>12 years- 7 marks<br>Add 1 mark extra for each additional year of experience subject to maximum 3 (three) marks. | | 10 | | |
| b | Experience in Similar Capacity | | | | |
| b i) | Experience in tunnel design (Road/Rail/Metro) works in similar capacity<br><12 years – 0<br>12 years – 7 marks<br>Add 1 mark extra for each additional year of exper | | 10<br>Ince | | |

| | | | | |
|---|---|---|---|---|
| | ~~experience subject to maximum 3 (three) marks.~~ | | | |
| ~~b ii)~~ | ~~Experience in similar capacity in Project Preparation/DPR involving design of tunnels (Road/Rail/Metro)of 40% of project length or 1.5 km whichever is more (Min. 1 year experience in a project)~~<br><br>~~< 3 projects – 0~~<br><br>~~3 projects – 11 marks~~<br><br>~~Add 1 mark extra for each additional projects subject to maximum 4 (four) marks.~~ | ~~15~~ | | |
| ~~b iii)~~ | ~~Experience in similar capacity in construction/construction supervision projects involving design/design review of tunnels of 40% of project length or 1.5 km whichever is more (Min. 1 year experience in project)~~<br><br>~~<2 projects – 0~~<br><br>~~2 projects – 7 marks~~<br><br>~~Add 1.5 mark extra for each additional projects subject to maximum 3(three) marks.~~ | ~~10~~ | | |
| ~~c i)~~ | ~~Experience in innovation tunnel design (Road/Rail/Metro) like immersed tunnel and sub-sea bored tunnel 1 projects – 4 marks~~<br><br>~~2 or more projects -5 marks~~ | ~~5~~ | | |
| ~~c ii)~~ | ~~Experience in design tunnel projects(Road/Rail/Metro) apart from those under 2 (b) (ii)~~<br><br>~~1 project – 4 marks~~<br><br>~~2 or more projects – 5 marks~~ | ~~5~~ | | |
| ~~**3**~~ | ~~Employment with the Firm~~<br><br>~~<1 year- 0~~<br><br>~~1 year – 3 marks~~<br><br>~~Add 0.5 marks for each subsequent year subject to maximum 2 marks~~ | ~~**5**~~ | | |
| ~~———~~ | ~~**Total :**~~ | ~~**100**~~ | | |

Note: Max Age =65Years

** tunnel projects, unless specifically mentioned, has to be major tunnels of length equal to or more

than 1.5 Km to be considered for evaluation. For project having length less than 1.5 km, the requirement of length of tunnel project may be changed to 40% of project length or min 500 m whichever is more.

### *3.13 TUNNEL SAFETY EXPERT*

| S. No. | Description | | Max. Points | Reference /Details of projects Claimed for self-assessment | Marks self-assessed by the bidder |
|---|---|---|---|---|---|
| 1 | General Qualification | | 25 | | |
| I) | Graduate in Civil/Mining Engineering or equivalent | 18 | | | |
| II) | Any professional Certification from a recognized/statutory body on safety/health/shot firer | 04 | | | |
| | Attended Minimum 5 days training on tunnel safety from IAHE/ITA/ any other Govt institute | 03 | | | |
| 2 | Adequacy for the Project | | 70 | | |
| | Total Professional Experience | | | | |
| a i) | <20 years – 0<br>20 years – 11 marks<br>Add 1 mark extra for each additional year of experience subject to maximum 4 (four) marks. | | 15 | | |
| A ii) | Experience Tunnel (Road/Rail/Metro) Safety Works<br><10 years – 0<br>10 years – 11 marks<br>Add 1 mark extra for each additional year of experience subject to maximum 4 (four) marks. | | 15 | | |

| | | | | |
|---|---|---|---|---|
| a iii) | International exposure in tunnel safety works in developed countries<br><br><7 years – 0<br><br>7 years – 7 marks<br><br>Add 1 mark extra for each additional projects subject to maximum 3 (three) marks. | 10 | | |
| b | Experience in Similar Capacity | | | |
| b i) | Experience in similar capacity of Tunnel Safety Audits during construction stage of tunnel projects(Road/Rail/Metro) of 40% of project length or 1.5 km whichever is more<br><br>< 2 projects – 0<br><br>2 projects – 15 marks<br><br>Add 1.25 mark extra for each additional projects subject to maximum 5 (five) marks. | 20 | | |
| b ii) | Experience in similar capacity of Tunnel Safety Audits in design stage on tunnel projects (Road/Rail/Metro)<br><br>1 project – 8 marks<br><br>2 or more – 10 marks | 10 | | |
| C) | Experience in construction of major tunnel projects (Road/Rail/Metro) using<br><br>1 project – 3 marks<br><br>Add 1 mark extra for each additional projects subject to maximum 2 (two) marks. | 5 | | |
| **3** | Employment with the Firm<br><br><1 year- 0<br><br>1 year – 3 marks<br><br>Add 0.5 marks for each subsequent year subject to maximum 2 marks | **5** | | |
| | **Total :** | **100** | | |

Note: Max Age = 65 Years

** tunnel projects, unless specifically mentioned, has to be major tunnels of length equal to or more than

1.5 Km to be considered for evaluation. For project having length less than 1.5 km, the requirement of length of tunnel project may be changed to 40% of project length or min 500 m whichever is more.

*3.14 Senior Geotechnical Expert:*

| S. No. | Description | | | Max. Points | Reference /Details of projects Claimed | Marks self-assessed by the |
|---|---|---|---|---|---|---|
| 1 | General Qualification | | | 25 | | |
| I) | Graduate in Civil Engineering / Masters in Engineering Geology or equivalent from a recognized | 18 | | | | |
| II) | Post Graduate in Rock Mechanics /Foundation Engineering/ Tunnel | 04 | | | | |
| iii) | Attended Minimum 5 days training on tunnels/ Geotechnical from IAHE/ITA/ any other Govt institute | 03 | | | | |
| 2 | Adequacy for the Project | | | 70 | | |
| | Total Professional Experience | | | | | |
| a i) | <20 years – 0<br>20 years – 11 marks<br>Add 1 mark extra for each additional year of | | | 15 | | |
| A ii) | Experience in Construction/ Construction Supervision of major tunnel projects (Road/Rail/ Metro<br>< 10 years – 0<br>10 years – 7 marks | | | 10 | | |
| b | Experience in Similar Capacity | | | | | |
| b i) | Experience as Geotechnical engineer or similar capacity in construction/ construction supervision of at least 4 tunnel projects (Road/Rail/Metro) of length 40% of project length or 1.5 km whichever is more<br>< 4 projects – 0<br>4 projects – 17 marks<br>add 2 marks for each additional project | | | 25 | | |
| b ii) | Experience as Geotechnical engineer or similar capacity in Construction/ Construction Supervision of major tunnel projects involving vertical shaft sinking of at least 200m vertical depth<br>1 project – 4 marks<br>more than 2 project - 5 marks | | | 5 | | |

| S. No. | Description | | Max. Points | Reference/Details of projects Claimed for self-assessment | Marks self-assessed by the bidder |
|---|---|---|---|---|---|
| B iii) | Experience as Geotechnical engineer or similar capacity in design/project preparation of tunnel projects(Road/Rail/Metro) of 40% of project length or 1.5 km whichever is more<br><br>< 2 projects – 0<br><br>2 projects – 11 marks<br><br>Add 2 marks extra for each additional projects subject to maximum 4 (four) marks. | | 15 | | |
| 3 | Employment with the Firm<br><br><1 year- 0<br><br>1 year – 3 marks<br><br>Add 0.5 marks for each subsequent year subject to maximum 2 marks | | 5 | | |
| | Total : | | 100 | | |

Note:- Max Age =65 Years

** tunnel projects, unless specifically mentioned, has to be major tunnels of length equal to or more than 1.5 Km to be considered for evaluation. For project having length less than 1.5 km, the requirement of length of tunnel project may be changed to 40% of project length or min 500 m whichever is more.

### 3.15 Senior GEOLOGIST:

| S. No. | Description | Max. Points | Reference/Details of projects Claimed for self-assessment | Marks self-assessed by the bidder | |
|---|---|---|---|---|---|
| 1 | General Qualification | 25 | | | |
| I) | Masters in Geology /Applied Geology fromrecognized | 22 | | | |
| iii) | Attended Minimum 5 days training for geologist from IAHE/ITA/ any other Govt institute | 03 | | | |
| 2 | Adequacy for the Project | | 70 | | |
| | Total Professional Experience | | | | |

| | | | | |
|---|---|---|---|---|
| a i) | <<20 years – 0<br><br>20 years – 15 marks<br><br>Add 1 mark extra for each additional year of experience | 20 | | |
| A ii) | Experience in major Tunnel construction/construction supervision Projects (Road/Rail/Metro) using NATM technology<br><br>< 5 years – 0 | 15 | | |
| | Add 1.5 marks extra for each additional year subject to maximum 3 (three) marks. | | | |
| b | Experience in Similar Capacity | | | |
| b i) | Experience in major Tunnel(Road/Rail/Metro) Construction works in similar capacity<br><br>< 7 years – 0<br><br>7 years – 12 marks<br><br>Add 1 mark extra for each additional year of experience subject to maximum 3 (three) marks. | 15 | | |
| b ii) | Experience in similar capacity in project preparation/DPR involving of major tunnel projects (Road/Rail/Metro). (Min 1year experience in a project)<br><br><2 projects – 0<br><br>2 projects -7 marks<br><br>Add 1.5 marks extra for each additional projects subject to maximum 3 (three) marks. | 10 | | |
| b iii) | Experience in similar capacity in highway tunnel construction/construction supervisionof project having 40% of project length or 1.5 km whichever is more<br><br>< 2 projects – 0<br><br>2 project – 7 marks | 10 | | |
| | Add 1.5 marks extra for each additional projects subject to maximum 3 (three) marks. | | | |

| | | | | |
|---|---|---|---|---|
| ~~3~~ | ~~Employment with the Firm~~<br><br>~~<1 year- 0~~<br><br>~~1 year – 3 marks~~<br><br>~~Add 0.5 marks for each subsequent year subject to maximum 2 marks~~ | ~~5~~ | | |
| | ~~Total :~~ | ~~100~~ | | |

Note: Max Age = 65 Years

** tunnel projects, unless specifically mentioned, has to be major tunnels of length equal to or more than 1.5 Km to be considered for evaluation. For project having length less than 1.5 km, the requirement of length of tunnel project may be changed to 40% of project length or min 500 m whichever is more.

*For all the above Key-Positions the following shall be noted:*

*1. AICTE (Major/Core Branch of Engineering/Technology and their relevant/ appropriate course*

*leading to degree in Engineering/Technology), 2017 shall be considered for equivalence of disciplines.*

*2. For gaps not addressed in the above notification, the same shall be decided by a committee of the Authority with at least one educationalist as a committee member.*

3. **Self-Certified Undertakings on INFRACON if not supplemented with Client Issued Certificates**, shall not be considered for Evaluation.

4. **Retired Govt. Officers shall upload the promotion orders** to equivalent/similar capacity posts on INFRACON.

5. If a key personnel has worked in next lower category to the similar capacity, the marks allotted to key personnel in the category 'experience in similar capacity' shall be reduced To two thirds of marks in this category. This shall be applicable for evaluation of all key personnel.

6. Similar projects means 2/4/6 lane as applicable for the project for which RFP is invited. For 2-lane projects experience of 4/6 lane also to be considered with a multiplication factor of 1.5. Experience of 4/6 lane shall be considered interchangeably for 4/6 laning projects. For 4/6 laning projects, experience of 2 lane will be considered with a multiplication factor of 0.4.

6. Essential Software Experience- (MS Roads/ Projects, Prima Vera or other relevant software, the certificate from any Govt training institute/ Educational institute only will be considered.

7. CV submitted without Medical certificate of fitness as per Appendix-B shall not be evaluated and will be assigned zero(0) marks.

**4.0 Requirements with respect to Technical Capacity Provision for maximum number of consultancy services to be awarded to one consultant:**

(i) The maximum number of consultancy services to be awarded to one consultant will be governed by the following provisions:

- Residual AE/IE Bid Capacity viz., "R" shall be more than the tentative length of the Project

**For Normal Highway Projects**

- **R= CL x TF - RP**

Wherein:

Completed Length (CL) = Length of AE/IE completed NHs/Expressways in last 5 FY. Turnover Factor (TF)= Multiplication factor based on Turnover

| **Average Annual Turnover of Last 5 Financial years** | **Turn Over Factor "TF"** |
|---|---|
| Upto 50 cr | 1.00 |
| 50 to 250 cr | 1.50 |
| >250 crores | 2.00 |

Running Projects (RP)= Length of AE/IE Projects in Hand wherein provisional Completion Certificate/ completion certificate not issued, Includes projects for which firm has emerged as H-1 bidder but LOA have not been issued. R to be calculated for each JV member & weighted average as per Share in JV be considered.

The applicants shall submit the requisite details for determination of technical capacity in the prescribed format Technical Capacity (Form T-11) enclosed.

# BIDDING FORMS

# Technical Proposal

# Form T-1: Proposal Form (Covering Letter)

(Ref ITC-clause 9.2)
(To be submitted as part of Technical Proposal, along with supporting documents, if any)
(on Consultant's Letter-head)
(Strike out alternative phrases not relevant to you)
Consultant's Name
[Address and Contact Details]
Consultant's Reference No._____ Date……..
To
The President of India, through
Head of Procurement
Procuring Organisation

*[Complete address of the Procuring Entity]*
Ref: Your RFP Document No. RFP No./ xxxx; Tender Title: Consultancy Services
Sir/ Madam

1. We, the undersigned, offer to provide consulting services in accordance with your above-referenced Request for Proposals (RFP) and our Proposal. We are hereby submitting our Proposal, which includes this Technical Proposal and a separately uploaded Financial Proposal. Commercial information about our organisation is enclosed in Form T-1A.

- We are submitting our Proposal without any Sub-consultants or JV.

Or

- We are submitting our proposal as a joint venture with {Insert a list with each rdiedednthban'rligeamseacfeulna ad leadmember}. We have attached a copy of the following document signed by every participating member, which details the (likely) legal structure and the confirmation of joint and severable liability of the members of the said joint venture.

  - our letter of intent to form a joint venture
  - the JV agreement

2) **Our Eligibility and Qualifications to participate**
   a) We confirm that we continue to comply with all the eligibility (including the absence of conflict of interest and debarment) and qualification criteria stipulated in this RFP. We shall be dutybound to proactively inform you of any change in our compliance with these criteria as soon as it occurs.
   b) We confirm that we don't have any Conflict of Interest as stipulated in this RFP. We shall be duty bound to proactively inform you of any change in our compliance with Conflict-of-Interest stipulations as soon as it occurs.

3) **Our Proposal to deliver Services:**

We offer to deliver the subject Services of requisite Performance Standards and

within Delivery Schedules in conformity with the RFP Document. The relevant details are submitted in 'Form T-4: Description of Approach, Methodology and Work Plan in responding to Terms of Reference'; Form T-5: Work Schedule and Planning of Deliverables and Form T-6: Team Composition, Assignment and Key Experts' Inputs'.

4) Prices:

We hereby offer to perform the Services at our lowest prices and rates mentioned in the separately uploaded Financial Proposal. It is hereby confirmed that the prices quoted therein by us are:

(a) Based on the terms of delivery and delivery schedule confirmed by us; and

(b) Cost break-up of the quoted cost, showing inter-alia costs (including taxes and duties thereon) of all the included incidental Goods/ Works considered necessary to make the proposal self-contained and complete, has been indicated therein, and

(c) based on the terms and mode of payment as stipulated in the RFP Document. We have understood that if we quote any deviation from the terms and mode of payment, our Proposal is liable to be rejected as nonresponsive, and

(d) have been arrived at independently, without restricting competition, any consultation, communication, or agreement with any other Consultant or competitor relating to:

i) those prices; or

ii) the intention to submit an offer; or

iii) the methods or factors used to calculate the prices offered.

(e) Have neither been nor shall be knowingly disclosed by us, directly or indirectly, to any other Consultant or competitor before the Proposal opening unless otherwise required by law.

5) We declare regarding commissions or fees paid or are to be paid to agents, representatives, or commission agents concerning the selection process or execution and performance of this Contract, that:

□ No such commissions or gratuities or fees have been paid are to be paid by us to any third party

Or

□ We have paid/ are due to pay the following commissions/ gratuities/ fees:

---

(Indicate the name and address of the agent, representative, or commission agent, the amount and currency, and the purpose of the commission or fee.)

6) **No change in the Key Experts**

Except as stated in the RFP Document, we undertake to negotiate a Contract based on the proposed Key Experts. We accept that substituting Key Experts for reasons other than those stated in ITC-Clause 12.3 may lead to the termination of contract negotiations.

7) **Affirmation of terms and conditions of the RFP Document:**

We have understood the complete terms and conditions of the RFP Document. We accept and comply with these terms and conditions without reservations, although we are not signing and submitting some of the RFP document's sections. Deviations, if any, are submitted by us in Form T-7: 'Terms and Conditions - Compliance'. We also explicitly confirm acceptance of the Arbitration Agreement as given in the RFP Document.

8) **Bid Security**: We have submitted the Bid Security as

a) Earnest Money Deposit (EMD) for the amount of Rs. (Rupees…….) valid upto in favour of

….....in the form of Insurance Surety Bonds/ Account Payee

Demand Draft/ Fixed Deposit Receipt/ Banker's cheque/ Payment online/ Bank Guarantee in Form T-9A, with reference numberdated , issued by . as p

b) Bid Securing Declaration (BSD, in lieu of Bid Security, if permitted in TIS) in stipulated format vide Form T-9B.

9) **Abiding by the Proposal's Validity**

We agree to keep our Proposal valid for acceptance for a period upto , as required in the RFP Document, or for a subsequently extended period, if any, agreed to by us, and are aware of penalties in this regard stipulated in the RFP Document in case we fail to do so.

10) Non-tempering of Downloaded RFP Documents and Uploaded Scanned Copies We confirm that we have not changed/ edited the contents of the downloaded RFP Document. We realise that any change noticed at any stage, including after the contract award, shall be liable to punitive action in this regard stipulated in the RFP Document. We also confirm that scanned copies of documents/ affidavits/ undertakings uploaded during the shortlisting process and this RFP are valid, true, and correct to the best of our knowledge and belief. We shall be responsible if any dispute arises regarding the validity and truthfulness of such documents/ affidavits/ undertakings. We undertake to submit for scrutiny, on-demand by the Procuring Entity, originals and self-certified copies of all such certificates, documents, affidavits/ undertakings.

11) **A Binding Contract:**

We further confirm that if our proposal is accepted, all such terms and conditions shall continue to be acceptable and applicable to the resultant contract, even though some of these documents may not be included in the contract Documents submitted by us. We do hereby undertake that until a formal contract is signed or issued, this Proposal and your written Letter of Award shall constitute a binding contract between us.

12) **Performance Guarantee and Signing the contract**

We further confirm that if our proposal is accepted, we shall provide you with performance security of the required amount stipulated in the RFP Document for the due performance of the contract. We are fully aware that in the event of our failure to deposit the required security amount and/ or execute the agreement, the Procuring Entity has the right to avail of any or all punitive actions stipulated in the RFP Document.

13) **Penalties for misinterpretation or misrepresentation:**

We hereby confirm that the particulars given above are factually correct and nothing is concealed and undertake to advise any future changes to the above details. We understand that any misinterpretation or misrepresentation would violate the Code of Integrity and attract penalties, as this RFP Document mentions.

14) **Consultant's Authorized Signatory:**

a) Full Name: _____

b) Designation: _____

c) Signing as:

☐ A sole proprietorship firm. The person signing the Proposal is the sole proprietor/ constituted attorney of the sole proprietor,

☐ A partnership firm. The person signing the Proposal is duly authorised being a partner to do so under the partnership agreement or the general power of attorney,

☐ A company. The person signing the Proposal is the constituted attorney by a resolution passed by the Board of Directors or in pursuance of the Authority conferred by the Memorandum of Association.

☐ A Society. The person signing the Proposal is the constituted attorney.

We confirm that we are duly authorized to submit this Proposal and make commitments on behalf of the Consultant. We acknowledge that our digital/digitized signature is valid and legally binding. Supporting documents are submitted herewith.

Documents to be submitted: Registration Certificate/ Memorandum of Association/Partnership Agreement/ Power of Attorney/ Board Resolution

15) **Rights of the Procuring Entity to Reject Proposal(s):**

We further understand that you are not bound to accept the lowest or any Proposal you may receive against your above-referred RFP Document.

….....(Signature with date)

…..... (Name and designation)

Duly authorized to sign Proposal for and on behalf of [name, address, and seal of Consultant]

# Form T-1A: Consultant's Commercial Information

*Note: Consultant shall fill in the following information and enclose certified copies of the documentary proof/ evidence to substantiate the corresponding statement wherever necessary and applicable.*

(Please tick appropriate boxes or strike out sentences/ phrases not applicable to you)

1) Consultant particulars:
   a) Name of the Consultant:…….
   b) Corporate Identity No. (CIN): ……..
   c) Registration, if any, with The Procuring Entity: ……..
   d) Place of Registration/ Principal place of business" …….
   e) Complete Postal Address: ……..
   f) Pin code/ ZIP code: …….
   g) Telephone nos. (with country/ area codes): ……
   h) Mobile Nos.: (with country/ area codes): ……..
   i) Contact persons/ Designation: …….
   j) Email IDs: ……. .

*Submit a self-certified copy of the registration certificate – in case of a partnership firm –Deed of Partnership; in case of a Company–Notarized and certified copy of its Registration; and in case of Society – its Byelaws and registration certificate of the firm.All these documents should be Notarized.*

2) Taxation:
   a) PAN number: …….
   b) Type of GST Registration as per the Act (Normal Taxpayer, Composition, Casual Taxable Person, SEZ, etc.): …….
   c) GSTIN number.....in Consultant and Service Site States
   d) Registered/ Certified Offices from where the Services would be supported and Place of Service Site for GST Purpose: …….
   e) Contact Names, Nos. & email IDs for GST matters (Please mention primary and secondary contacts): ……
   f) Comments on Tax liability and the breakup of CGST, SGST, IGST and Cess inthis assignment:

Documents to be submitted: Self-attested Copies of PAN card and GSTIN Registration.

3) Trade Registrations and Licences

We have the following registrations/ licences required for the performance of this Service (tick as applicable). Authenticated copies of these are enclosed herewith:

- □ EPF
- □ ESI
- □ Labour Licence
- □ Any other ~~required~~---------- --.

4) Consultant's Authorized Representative Information

a) Name:
b) Address:
c) Telephone/ Mobile numbers:
d) Email Address:

(Signature with date)

…..... (Name and designation)

Duly authorized to sign Proposal for and on behalf of [name, address and seal of Consultant]

DA: As above

# Form 1.2: Eligibility Declarations

(On Consultant's Letter-head)
(Along with supporting documents, if any)
REOI document No. REOI/ xxxx; Tender Title: Consultancy Services Consultant's Name_____[Address and Contact Details]
Consultant's Reference No._____Date…….
[Note: The list below is indicative only. You may attach more documents as required to confirm your eligibility criteria.]

**Eligibility Declarations**

(Please tick appropriate boxes or cross out any declaration not applicable to the consultant)
We hereby confirm that we comply with all the stipulations of REOI Clause 4.1 of the REOI document and declare as under and shall provide evidence of our continued eligibility to the Procuring Entity as and when it may be requested:

**1) Legal Entity of Consultant**: We are:

a) : _____relevant documents enclosed)

b) We are a Consultancy Services provider with valid registration regarding GSTIN, PAN, EPF, ESI, Labour, or equivalent registration certificate as applicable to the subject Services.

**2) Eligibility:** We solemnly declare that we (including our affiliates or subsidiaries, or constituents):

(a) are not insolvent, in receivership, bankrupt or being wound up, not have our affairs administered by a court or a judicial officer, not have our business activities suspended and are not the subject of legal proceedings for any of these reasons;

(b) (including our affiliates or subsidiaries, or constituents for any part of the assignment):

i) Do not stand declared ineligible/ blacklisted/ banned/ debarred by the Procuring Organisation or its Ministry/ Department from participation in its procurement processes; and/ or

ii) Are not convicted (within three years preceding the last date of EOI submission) or stand declared ineligible/ suspended/ blacklisted/ banned/ debarred by appropriate agencies of the Government of India from participation in procurement processes of all its entities for offences mentioned in REOI document in this regard.

iii) We have neither changed our name nor created a new "Allied Entity", consequent to the above disqualifications.

(c) Do not have any association (as consultant/ partner/ Director/ employee in any capacity) with such retired public official or near relations of such officials of Procuring Entity, as counter-indicated, in the REOI document.

(d) We have no conflict of interest, which substantially affects fair competition. The quoted prices are competitive without adopting unfair/ unethical/ anti competitive means. No attempt has been made or shall be made by us to induce any other consultant to submit or not to submit an EOI to restrict competition.

(e) We certify that we fulfil other additional eligibility conditions if prescribed in the

RFP document.

3) We certify that we are not an entity from a country identified to restrict Consultants from India from participation in their Government Procurements as per EOI clause 4.2.1

4) **Restrictions on procurement from consultants from a country or countries or a class of countries under Rule 144 (xi) of the General Financial Rules 2017:**
"We have read the clause regarding restrictions on procurement from a consultant of a country which

shares a land border with India and on sub-contracting to contractors from such countries, and solemnly certify that we fulfil all requirements in this regard and are eligible to be considered. We certify that:

a) we are not from such a country or, if from such a country, we are registered with the Competent Authority (copy enclosed). and;

b) we shall not subcontract any assignment to a contractor from such countries unless such a contractor is registered with the Competent Authority.

5) Startup Status: We confirm that we are (Certificate of Recognition issued by the Department for Promotion of Industry and Internal Trade (DPIIT) enclosed herewith)/ are not a Startup entity as per the Department of Promotion of Industrial and Internal Trade – DPIIT.

6) Penalties for false or misleading declarations: We hereby confirm that the particulars given above are factually correct and nothing is concealed and undertake to advise any future changes to the above details. We understand that any wrong or misleading self-declaration would violate the Code of Integrity and attract penalties.

……..

……

……..

(Signature with date) (Name and designation)

Duly authorised to sign EOI for and on behalf of

…….

….....Name, address, and seal of the Consultant] DA: As in Sr 1 to 5 above, as applicable

# Form T-2: Consultant's Organisation and Experience

(Ref ITC-clause 9.2)

(To be submitted as part of Technical

Proposal)(on Consultant's Letter-head)

(Along with supporting documents, if any)

Consultant's Name_____ [Address and Contact Details]

Consultant's Reference No._____ Date…….

RFP Document No. RFP No./ xxxx; Tender Title: Consultancy Services

Form-2: Please fill out this form to briefly describe the Consultant's organization andoutline the recent consultant experience most relevant to the assignment. In the case ofa joint venture, information on similar assignments shall be provided for each partner.For each assignment, the outline should indicate the names of the Consultant's KeyExperts and Sub-consultants who participated, the duration of the assignment, the contract amount (total and, if it was done in the form of a joint venture or a Sub- consultant, the amount paid to the Consultant), and the Consultant's role/involvement.

A - **Consultant's Organization :-** The proposal should contain the following information in enclosed format attached

- Year of Establishment of Firm
- Average annual turnover (last three years)

**Note:** The Firm shall submit Certificate of Incorporation and audited balance sheet for the last three years [FY 2014-2015, FY 2015-2016 and FY 2016-2017]*. For claiming experience of Highway projects, completion certificate from employer should be enclosed. The proposal should also contain the details of the key personnel viz. their name, qualification, expertise area, experience and years of association with the firm.

**To be modified appropriately.*

The following information related to the firm should be provided in the proposal.

i. Name of the package applied for:-

ii. Year of establishment of firm*

| Consultant | Year of Establishment | Country | Type of Organization | | | |
|---|---|---|---|---|---|---|
| | | | Individual | Partnership | Corporation | Other |

| | | | | | | |
|---|---|---|---|---|---|---|
| Individual / Lead Partner (of JV)/ Minor Partner of JV/Associate | | | | | | |

NOTE:- Year of Establishment of Lead Partner of JV shall be considered.

*Copy of Certificate of incorporation shall be submitted.

iii. Office/ Business Address/Telephone nos. /Cable Address.

iv. Narrative description of firm (Not more than 2 sheets)

v. Name of two (2) principals who may be contacted with title and telephone number/fax number/e-mail.

vi. Financial Statement of the last three years. **

| **Sl. No.** | Particular | **<2022-23>** | **< 2023-24>** | **<2024-25>** |
|---|---|---|---|---|
| i. | Annual turnover from Consulting business of civil Engineering Projects | | | |
| ii. | Total Assets | | | |
| iii. | Current Assets | | | |

Balance Sheet/ Auditor Certificate of last 3years <2022-23, 2023-24 and 2024-25> shall be submitted as evidence of Annual Turnover. Annual financial statement turnover duly certified by the Statutory Auditor with UDIN certifying turnover from consulting buissness of civil Engineering Projects may also be Provided.

** a) The amount shall be stated in INR. (Consider 1US Dollar = Rs. And 1 Euro = Rs.) (This will be the exchange rates as per Reserve Bank of India rounded off to nearest Rupee applicable at the time of RFP invitation).

b) The currency conversion rate for the respective years shall be mentioned for other International currencies.

**B - Consultant's Experience**

1. List only previous similar assignments completed in the last [ 7 ] years.

i) List only those assignments for which the Consultant was legally contracted bythe client directly or was one of the joint venture members. Assignments completed by the Consultant's individual experts working privately or through other consulting firms cannot be claimed as the relevant experience of the Consultant or that of the Consultant's partners or Sub-consultants - but can be claimed in their CVs. The Consultant should be prepared to substantiate the claimed experience by presenting copies of relevant documents and references, as requested by the Procuring Entity. Experience as Authority Engineer/Independent Consultant/Construction supervision of Highway projects, separately for PPP and non-PPP Projects during the last 7 years. ***

| S No | Projects<br>Name / Year<br>Sole Consultant/ Prime Consultant of JV / minor Authority's Engineer of JV/ /as associate consultant | Type of Services rendered | Description of Highway Project/ Length (kms) | Client (with complete address, contact person, Telephone Nos. and Fax Nos.) | Total Fee for the Consultancy Assignment (INR) | Fee received by Applicant (in case of JV/Association) | %age of total fee received by the firm | Approx. Cost of Highway Project | Period |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| | | A. Completed / Substantially completed projects:<br>1.<br>2.<br>3.<br>B. Projects in progress:<br>1.<br>2.<br>3. | | | | | | | |

ii) Experience in DPR/ Feasibility Study cum Preliminary Design Report preparation of 2/4/6 laning / Bridge Highway Projects separately for the PPP and non-PPP projects during the last 7 years. ***

| S No | Projects Name / | Type | Length | Client | Total Fee | Fee received by | %age of | Period |
|---|---|---|---|---|---|---|---|---|

| | Year<br><br>Sole Consultant/ Prime<br><br>Consultant of JV / minor Authority's Engineer of JV/ /as associate<br><br>consultant | of Services Rendered | of Project (kms) | (with Complete address, contact person, telephone Nos. and Fax Nos.) | for the Consultancy Assignment (INR) | Applicant (in case of<br><br>JV/Association)<br><br>ca<br><br>se of JV) | total fee received by the firm | |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

***a) 2/4/6 lane/Bridge work as applicable for the project for which RFP is invited. For 2-lane projects experience of 4/6 lane also to be considered with a multiplication factor of 1.5. Experience of 4/6 lane shall be considered interchangeably for 4/6 laning projects. For 4/6 lane projects, experience of 2 lane will be considered with a multiplication factor of 0.4, but only for those 2-lane projects whose cost of consultancy services was more than Rs.3.0 crores. For standalone bridge projects, experience in bridge work (either standalone project or as a part of road project) only be considered.

b) Only those projects, to be included in the table which are Highways Projects and for which clients certificates from the concerned Government agencies are enclosed with the proposal.

c) The details of bridges having length more than 200m (500m in case the project consist of bridges of length more than 500m) in the listed projects is to be specifically mentioned.

d) The weightage given for experience of a firm would depend on the role of the firm in

the respective assignments. The firm's experience would get full credit if it was the sole firm in the respective assignment. If the applicant firm has completed projects as JV with some other firms, weightage shall be given as per the JV share***. However if the applicant firm has executed the project as associate with some other firms, 25% weightage shall be given to the applicant firm for the projects completed under such association

The weightage given for experience of a firm would depend on the role of the firm in the respective assignments. The firm's experience would get full credit if it wasthe sole firm in the respective assignment. If the applicant firm has completed projects as JV with some other firms, weightage shall be given as per the JV share***. However if the applicant firm has executed the project as associate/ non substantial partner with some other firms, weightage shall be given as per the Actual share subjected to maximum of 25% to the applicant firm for the projects completed under such associationAssignments on hand including those for which the Letter of Acceptance from the clients received as on 7 days prior to due date for submission of proposals: The details shall be given in the following format.

| S. No | Name of Assignment | Client | Role of the firm<br>Sole, Lead/ Other in JV or sub- | Date of letter of Acceptance | Date of Agreement if signed | Present status of Assignment | Team Members provided by the firm | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Name | DOB | Position |
| (1) | (2 ) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| | | | | | | | | | |

| Key Personnel | Number of key personnel employed | | |
|---|---|---|---|
| | Sole Applicant (Lead Member in case of JV) | JV (1) | |
| Team Leader cum Senior Highway Engineer | | | |
| Resident cum Highway Engineer | | | |
| Bridge/Structural Engineer | | | |
| Senior Pavement Specialist | | | |
| Senior Quality cum Material Expert | | | |
| Road Safety Expert | | | |

## 2. FACILITY FOR FIELD INVESTIGATION AND TESTING

1. State whether applicant has in-house (created in house at site)/ outsourced/ not available facility for

- Surface defects detection and roughness measurement using Network Survey Vehicle
- Mobile Quality Control Unit having Soil Testing, Asphat Testing, Concrete testing, Aggregate Testing and pavement testing equipment onboard along with sufficient IT and communication systems
- Ownership of NABL accredited Lab by the firm
- Pavement strength measurement using FWD
- Bridge inspection using Mobile Bridge Inspection Unit

- Road signs inspection using Retro Reflectometer

*REFERENCES*

Relevant Services Carried Which Best Illustrate Qualifications

The following information should be provided in the format below for each reference assignment for which your firm, either individually as a corporate entity or as one of the major companies within a consortium, was legally contracted by the client:

<table>
<tr><td colspan="2">Assignment Name:</td><td>Country:</td></tr>
<tr><td colspan="2">Location within Country:</td><td>Professional Staff Provided by your firm:</td></tr>
<tr><td colspan="2">Name of Client :</td><td>No. of Staff :</td></tr>
<tr><td colspan="2">Address :</td><td>No. of Staff Months :</td></tr>
<tr><td colspan="3">Technology Used:</td></tr>
<tr><td>Start Date<br>(Month / Year)</td><td>Completion Date<br>(Month / Year)</td><td>Approx. Value of Services in INR/current USD):</td></tr>
<tr><td colspan="2">Name of JV/Association Firm(s)if any:</td><td>No. of Months of Professional Staff provided by<br>Associated Firm(s)</td></tr>
<tr><td colspan="3">Status of your Company in the Assignment i.e., Sole/Lead Member/Other Member/Associate</td></tr>
<tr><td colspan="3">Narrative Description of Project :</td></tr>
<tr><td colspan="3">Description of Actual Services Provided by your Company:</td></tr>
</table>

Signature of Authorised Representative
(Certificate from Employer regarding experience should be furnished)

# Format for Technical Capacity of Applicants

**(TO BE FILLED BY THE SOLE CONSULTANT & IN CASE OF JV, SEPARATELY BY JV MEMBERS BIDDING FOR THE ASSIGNMENT)**

(i) Details of all in-hand AE/ IE/ SC projects or AE/ IE/ SC awarded by MoRTH or its executing agencies for NH works and centrally sponsored road works:

| Sl. No | Project Description | AE/IE/SC works Provisionally completed or original assignment period+ one year lapsed (Yes/ No) | Start Date | Scheduled Completion | Whether awarded in Current Financial Year (Yes/ No) | In case of JV, share of Contract Fee (%) |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**Format for undertaking by the firm for in-hand AE/ IE/ SC Projects:**

The undersigned on behalf of ---------- (name of consulting firm) certify that the firm do not have any other in-hand/ awarded AE/ IE/ SC project other than those listed above.

Date (dd/mm/yyyy)

*[Signature of authorized representative of the Firm]*

**Note 1:**

The figures in Col 7 be rounded off to the nearest integer i.e. in case remaining bid-capacity comes to 0.5 or more then it will be considered as 1, in case less than 0.5 then it will be considered as 0 (Zero).

**Note 2:**

**Clarification for technical capacity utilised in case of JV with other firm than proposed in current assignment.**

In case Firm-1 proposes for new JV with other partner, then capacity utilisation will be calculated on the basis of JV share in existing assignments e.g. JV in one project with 30% share:-One projectX0.3=0.3 JV in one project with 70% share:-One projectX0.7=0.7 JV in one project with 50% share:-One projectX0.5=0.5 JV in two projects with 80% share:-Two projectX0.8=1.6 The weighted utilization of the Capacity of Firm-1=3.1

Note 3:

The Consultant shall re-submit the bid capacity details as per above format at the time of opening of Financial Bid.

# Form T-3: Comments and Suggestions on the Terms of Reference, Counterpart Staff, and Facilities to be provided by the Procuring Entity

(Ref ITC-clause 9.2)
(To be submitted as part of Technical Proposal) (Along with supporting documents, if any)
(on Consultant's Letter-head)
RFP Document No. RFP No./ xxxx;
Tender Title: Consultancy Services
Consultant's Name
[Address and Contact Details]
Consultant's Reference No. Date…….

Form T-3: Comments and Suggestions on the areas that have not been provided or any changes*to the existing provisions of the Terms of Reference, Counterpart Staff, and Facilities to be provided by the Procuring Entity that could improve the quality/effectiveness of the assignment.Specifically mention where your proposal deviates from Section VI: Terms of Reference. A - ONTHE TERMS OF REFERENCE

Note: Suggest and justify any modifications or improvements to the Scope of Work you are proposing to improve performance in carrying out the assignment (such as deleting some activity you consider unnecessary, adding another, or proposing a different phasing of the activities).Such suggestions should be concise, to the point, and incorporated into your proposal.Consultants must maintain the same numbering and structure as in Section VI:'Terms of Reference'and Section VI-A: List of Key Experts and Required Qualifications.

B - ON COUNTERPART STAFF AND FACILITIES & OTHER AREAS
{Comments on counterpart staff and facilities to be provided by the Procuring Entity. For example, administrative support, office space, etc., if any}

# Form T-4: Description of Approach, Methodology and Work Plan in Responding to the Terms of Reference

(Ref ITC-clause 9.2)

(To be submitted as part of Technical Proposal) (on Consultant's Letter-head) RFP Document

No. RFP No./ xxxx; Tender Title: Consultancy Services Consultant's Name_____

[Address and Contact Details]

Consultant's Reference No._____nce Date…….

Form T-4: a description of the approach, methodology for quality control and work plan for performing the assignment, including a detailed description of the proposed methodology and staffing for training if the Terms of Reference specify training as a specific component of the assignment.

{Suggested structure of your Response:

a) Technical Approach and Methodology

b) Work Plan

c) Organization and Staffing}

A) Technical Approach and Methodology

{Please explain your understanding of the objectives of the assignment as outlined in the 'Terms of Reference' (TORs), the technical approach, and the methodology you would adopt for implementing the tasks to deliver the expected output(s), and the degree of detail of such output. Please do not repeat/copy the TORs here.}

B) Work Plan.

{Please outline the plan for implementing the main activities/tasks of the assignment, their content and duration, phasing and interrelations, milestones (including interim approvals by the Procuring Entity), and tentative delivery dates of the reports. The proposed work plan should be consistent with the technical approach and methodology, showing your understanding of the TOR and ability to translate them into a feasible working plan. A list of the final documents (including reports) to be delivered as final output(s) should be included here. The work plan should be consistent with Form T-5: 'Work Schedule and Planning of Deliverables'.}

C) Organization and Staffing.

{Please describe the structure and composition of your team, including the list of the Key Experts, Non-Key Experts, and relevant technical and administrative support staff. The Organization and staffing should be consistent with Form T-6: 'Team Composition, Assignment, and Key Experts' Inputs.}

……..

(Signature with date)

…..... (Name

and designation)

Duly authorized to sign Proposal for and on behalf of

…….

[name, address, and seal of Consultant ]

DA: Relevant documents like technical data, literature, drawings, and other documents

# Form T-5: Work Schedule and Planning for Deliverables[3]

(Ref ITC-clause 9.2)

(To be submitted as part of Technical Proposal)(on Consultant's Letter-head)

RFP Document No. RFP No./ xxxx; Tender Title: Consultancy

ServicesConsultant's Name_____

[Address and Contact Details]

Consultant's Reference No._____ Date…….

{Please outline the Plan for implementing the main activities/ tasks of the assignment, their content and duration, phasing and interrelations, milestones (including interim approvals by the Procuring Entity), and tentative delivery dates of the deliverables. Theproposed work plan should be consistent with the technical approach and methodology, showing your understanding of the ToR, anychallenges likely to be encountered during the programmatic implementation, the mitigations proposed and the ability to translate them into a feasible working plan. A list of the final documents (including reports) to be delivered as final output(s) should be includedhere. The work plan should be consistent with the Work Schedule Form.}

*A. Activity Schedule*

| | | **Month wise Program(information of Bar Chart)** **[1st,2nd, etc. are months from the start of assignment]** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sr. No.** | **Item of Activity (Works)** | **1st** | **2nd** | **3rd** | **4th** | **5th** | **6th** | **7th** | **8th** | **9th** | **10th** | **11th** | **12th** |
| 1 | …… …… | | | | | | | | | | | | |
| 2 | …… …… | | | | | | | | | | | | |
| 3 | …… …… | | | | | | | | | | | | |
| 4 | …… …… | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| - | ..... ..... | | | | | | | | | | | | |
| - | ..... ..... | | | | | | | | | | | | |

### B. Completion and Submission of Reports

| Sr.No | Reports : | Programme Date) |
|---|---|---|
| 1 | Monthly reports (Design and Construction) | |
| 2 | Quarterly Reports | |
| 3 | Various others reports as provided in the Concession Agreement such as Completion Report | |

## Form T-6: Team Composition, Assignment, and Key Experts' Inputs

(Ref ITC-clause 9.2)

(To be submitted as part of Technical Proposal)(on Consultant's Letter-head)

RFP Document No. RFP No./ xxxx;

Tender Title: Consultancy Services

Consultant's Name_____ [Address and Contact Details]

Consultant's Reference No._____ Date…….

**Note to Consultants: RFP indicates key Personnel (Managers/ Supervisors/ Executives/ Specialists/ Technicians) and the number of non- key staff required to perform the services to the required performance standards and quality. The consultant shall quote the cost of these personnel in the Financial Proposal.**

**TIME SCHEDULE FOR PROFESSIONAL PERSONNEL**

1. Technical/Managerial Staff

| Sl. No. | Name | Position | Task |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| … | | | |
| … | | | |

i. Support Staff

| Sl. No. | Name | Position | Task |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| … | | | |
| … | | | |

## Annex to Form T-6: Key Expert Curriculum Vitae (CV)

(As per the infracon format with following certifications)

*Certification by the Candidate*

I, the undersigned,(Name and Address) undertake that this CV correctly describes myself, my qualifications and my experience and Employer would be at liberty to debar me if any information given in the CV, in particular the Summary of Qualification & Experience vis-à-vis the requirements as per TOR is found incorrect. I further undertake that I have neither been debarred by <Agency> or any other central/stage government organization nor left any assignment with the consultants engaged by Employer / contracting firm (firm to be supervised now) for any continuing work of Employer without completing my assignment. I will be available for the entire duration of the current project (named… ).If I leave this assignment in the middle of the
work, Employer would be at liberty to debar me from taking any assignment in any of the Employer works for an appropriate period of time to be decid ed by the Employer. I have no objection if my services are extended by the Employer for this work in future.

I further undertake that my CV is being proposed for this project by (the applicant firm) and I have not given consent to any other consultant(s) to propose my CV for any position forthis project.

I further undertake that if due to my inability to work on this project due to unavoidable circumstances, due to which consultant's firm is forced to seek replacement. In such unavoidable circumstances, I shall not undertake any employment in Employer projects during the period of assignment of this project and Employer shall consider my CV invalid till such time.

I undertake that I have no objection in uploading/hosting of my credentials by Employer in public domain.

For Key Personnel having intermittent inputs, add the following:

I further certify that I am associated with the following assignments as on date (as on 7 days prior to due date for submission of proposal) including those for which LOA has been received by the firm and the inputs in these assignments shall not effect the work of the current assignment.

| Name of Assignment | Client | Date of LOA | Likely start (Month / Year) | Likely end (Month / Year) | Total input of the person (man-months) |
|---|---|---|---|---|---|
| | | | | | |

Adequacy for the Assignment:

| Detailed Tasks Assigned on Consultant's Team of Experts: | Reference to Prior Work/Assignments that Best Illustrates Capability to Handle the Assigned Tasks |
|---|---|
| *{List all deliverables/tasks as in FORM T-5 in which the Expert shall be involved)* | |
| | |
| | |

Expert's contact information: (e-mail ……., phone..... )

Date(Signature of Key Personnel)
(Day/Month/Year)

The Bidder should carryout self-evaluation based on the evaluation criteria at Appendix-EC and furnish the same here. While submitting the self-evaluation along with bid, Bidder shall make references to the documents which have been relied upon in his self-evaluation.

*Certification by the firm*

The undersigned on behalf of ----------( name of consulting firm) certify that Shri (name of proposed personnel) to the best of our knowledge has neither been debarred by
<Agency> or any other Central/State Government organization nor left his assignment with any other consulting firm engaged by the Employer /Contracting firm(firm to be supervised now) for the ongoing projects. We understand that if the information about leaving the past assignment is known to the Employer, Employer would be at liberty to remove the personnel from the present assignment and debar him for an appropriate period to be decided by the Employer.

… .....Date

(Day/Month/Year)

*[Signature of authorized representative of the Firm]*

# Form T-7: Terms and Conditions – Compliance

(Ref ITC-clause 9.2)

(To be submitted as part of Technical Proposal) (on Consultant's Letter-head)

Consultant's Name_____[Address and Contact Details]

Consultant's Reference No._____ Date ..... RFP Document No. RFP No./ xxxx; Tender Title: Consultancy Services

*Note to Consultants: Fill up this Form regarding Terms and Conditions in the RFP Document, maintaining the same numbering and structure. Add additional details not covered elsewhere in your Proposal in this regard.*

| Sl. No. | Ref of RFP Document Section, Clause | | Subject | Confirmation/ Deviation/ Exception/ reservation | Justification/ Reason |
|---|---|---|---|---|---|
| | Section | Clause/ sub-clause | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

We shall comply with, abide by, and accept without variation, deviation, or reservation all terms and conditions of the RFP Document, except those mentioned above. If mentioned elsewhere in our Proposal, contrary terms and conditions shall not be recognised and shall be null and void.

……..

(Signature with date)

….....(Name and designation)

Duly authorized to sign Proposal for and on behalf of

…….

…….

[name, address, and seal of Consultant ] DA: If any, at the option of the Consultant.

# Form T-8: Checklist for Consultants

(Ref ITC-clause 9.2)

(To be submitted as part of Technical Proposal) (on Consultant's Letter-head)

Consultant's Name_____[Address and Contact Details]

Consultant's Reference No._____ Date…….

RFP Document No. RFP No./ xxxx; Tender Title: Consultancy Services

Note to Consultants: This checklist is merely to help the Consultants prepare their Proposals; it does not override or modify the tender requirement. Consultants must do their own due diligence also.

| Sr | Documents submitted, duly filled, signed | Yes/ No/ NA |
|---|---|---|
| 1. | Form T-1.- Proposal Form (to serve as covering letter and declarations applicable for both the Techno-commercial and Financial Proposal) | |
| 2. | Form T-1A: Consultant's Commercial Information, Power of attorney, Registration Certificates, etc. | |
| 3. | Form T-2: Consultant's Organisation and Experience | |
| 4. | Form T-3: Comments and Suggestions on Terms of Reference… | |
| 5. | Form T-4: Description of Approach, Methodology and Work Plan… | |
| 6. | Form T-5: Work Schedule and Planning of Deliverables | |
| 7. | Form T-6: Team Composition, Assignment and Key Experts' Inputs. Annex containing all CVs | |
| 8. | Form T-7: Terms and Conditions - Compliance | |
| 9. | Form T-8: This Checklist – was ticked appropriately | |
| 10. | Form T-9A: Bank Guarantee Format for Earnest Money Deposit or Form T-9B: Bid Securing Declaration – as applicable | |
| 11. | Form T-10: Duly signed Integrity Pact, If stipulatedin AITC. | |
| 12. | Financial Proposal was separately uploaded | |

| | | |
|---|---|---|
| 13. | Any other requirements, if stipulated in TIS/ AITC; or if considered relevant by the Consultant | |

# Form T-9A: Bank Guarantee Format for Earnest Money Deposit

(The Bank Guarantee shall be on a Stamp Paper of appropriate value in accordance with Stamp Act and shall be purchased in the name of the guarantee issuing Bank or the Party on whose behalf the BG is being issued.)

(Ref ITC-clause 13.1.2 and GCC-clause 5.8)

Ref

Bank Guarantee No……

Date……...

To

The President of India, through Head of

Procurement Procuring Organisation

[Complete address of the Procuring Entity]

Whereas M/s……with its Registered/ Head Office at……. (name and address of the Consultant, hereinafter called "the Consultant", which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) has undertaken to submit a proposal, in pursuance of Tender no …….. date..... (hereinafter called "the Tender").

And Whereas you (unless repugnant to the context or meaning thereof, including your successors, administrators, executors, and assigns) have stipulated in the said Tender that the Consultant shall furnish you with a bank guarantee by a Commercial bank for the sum specified therein as Earnest Money Deposit for compliance with its obligations as per the Tender;

And Whereas we …… with our Head Office at .....(name and address of the Bank, hereinafter referred to as the 'Bank', which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) have agreed to give the Consultant such a bank guarantee.

Now, Therefore, we hereby affirm that we are guarantors and responsible to you, on behalf of the Consultant, up to a total of …….(amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the Consultant to be in default under the Tender and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein, notwithstanding any difference between you and the Consultant or any dispute pending before any Court, Tribunal, Arbitrator or any other authority.

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

The Bank undertakes not to revoke this guarantee during its currency without your previous consent and further agrees that the guarantee herein contained shall continue to be enforceable till you discharge this guarantee. This guarantee will not be discharged due to a change in the constitution of the Bank or the Consultant's.

We further agree that no change or addition to or other modification of the terms of the Tender made by you shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such

change, addition, or modification.

This guarantee shall be valid until the …….day of …….20……

Our…….branch at……*(Name & Address of the … .....*(branch) is liable to pay the guaranteed amount depending on the filing of a claim and any part thereof under this Bank Guarantee only and only if you serve upon us at our ..... * branch a written claim or demand and received by us at our ..... * branch on or before Dt .....otherwise, the bank shall be discharged of all liabilities under this guarantee after that.

(Signature of the authorized officer of the Bank)
…….
…….
Name and designation of the officer
……
Seal, name & address of the Bank B r a n c h

*Preferably at the authority's headquarters competent to sanction the expenditure for procurement of goods/services or at the concerned district headquarters or the state headquarters.

# Form T-9B: Bid Securing Declaration

Consultants exempted from submission of Bid Security are also required to submit this.

(on Consultant's Letter-head)

Consultant's Name_____[Address

and Contact Details]

Consultant's Reference No._____To

The President of India, through Head of Procurement Procuring Organisation

[Complete address of the Procuring Entity]

Date…….

Ref: RFP Document No. RFP No./ xxxx; Tender Title: Consultancy Services Sir/ Madam

We, the undersigned, solemnly declare that:

We understand that according to this RFP document's conditions, the Proposal must be supported by a Bid Securing Declaration in lieu of Bid Security.

We unconditionally accept the conditions of this Bid Securing Declaration. We understand we (all members individually and jointly in case of JV/C) shall stand automatically suspended from being eligible for bidding in any tender in Procuring Organisation for 2 years from the date of opening of this Proposal if we breach our obligation(s) under the tender conditions if we:

1) Withdraw/ amend/ impair/ derogate, in any respect, from our Proposal, within the Proposal validity; or
2) Being notified within the Proposal validity of the acceptance of our Proposal by the Procuring Entity:
    (a) Refused or failed to produce the original documents for scrutiny or the required Performance Security within the stipulated time under the RFP document's conditions.
    (b) Fail or refuse to sign the contract.

We know that this Proposal-Securing Declaration shall expire

1) If the contract is not decided - forty-five days after the expiration of the Proposal validity, any extension to it.
2) If the contract is not awarded to us - not later than thirty days after the conclusion of the resultant contract, or

3) if the contract is awarded to us - after receipt of performance security from them

(Signature with date)

… .....(Name and

designation)

Duly authorized to sign Proposal for and on behalf of..... [name, address,

and seal of Consultant ]

Dated on ……. day of..... [insert date of signing]

Place..... [ insert place of signing]

DA:……

# Form T-10: Integrity Pact

(If stipulated in TIS, ref Claus 9.2.1 of ITC) (To be signed on Plain Paper)

(To be submitted as part of Technical Proposal)

RFP Document No. RFP No./ xxxx; Tender Title: Consultancy Services

This Agreement (hereinafter called the Integrity Pact) is made on_____day of the month of _____202___at_____, India.

BETWEEN

Procuring Organisation, ---------- through Head of the Procuring Organisation, for and on behalf of President of India (hereinafter called the "The Principal", which expression shall mean and include unless the context otherwise requires, his successors in office and assigns) of the First Part

AND

M/ s._____(hereinafter called the "The Consultant", which expression shall mean and include unless the context otherwise requires, his successors and permitted assigns) of the Second Part.

**PREAMBLE**

'The Principal' intends to award, under laid down organizational procedures, contract/s for _____, 'The Principal' values full compliance with all relevant laws of the land, rules, regulations, economical use of resources and fairness/transparency in its relations with its Consultant(s) and/ or Consultant(s).

In order to achieve these goals, the Principal shall appoint Independent External Monitors (IEMs) who shall monitor the Procurement Process and the execution of the contract for compliance with the above mentioned principles.

**Section 1 - Commitments of the 'The Principal'**

(1) 'The Principal' commits itself to take all measures necessary to prevent corruption and to observe the following principles: -

a. No employee of the Principal, personally or through family members, shall, in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

b. The Principal shall, during the Procurement Process, treat all Consultant(s) with equity and reason. The Principal shall, in particular, before and during the Procurement Process, provide to all Consultant(s) the same information and shall not provide to any Consultant(s) confidential/ additional information through which the Consultant(s) could obtain an advantage in relation to the Procurement Process or the contract execution.

c. The Principal shall exclude from the process all known prejudiced persons.

(2) If the Principal obtains information on the conduct of any of its employees, which is a criminal offence under the IPC/ PC Act, or if there be a substantive suspicion in this regard, the Principal shall inform the Chief Vigilance Officer and in addition, can initiate disciplinary actions.

**Section 2 - Commitments of the 'Consultant'**

(1) The 'Consultant' commit themselves to take all measures necessary to prevent corruption. The 'Consultant' commit themselves to observe the following principles during participation in the

Procurement Process and during the contract execution.

a. The 'Consultant' shall not, directly or through any other person or firm, offer, promise, or give to any of the Principal's employees involved in the Procurement Processor the execution of the contract or to any third person any material or other benefit whichhe is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Procurement Process or during the execution of the contract.

b. The 'Consultant' shall not enter any undisclosed agreement or understanding with other Consultants, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of Proposals or any other actions to restrict competitiveness or to introduce cartelisation in the Procurement Process.

c. The 'Consultant' shall not commit any offence under the relevant IPC/ PC Act; further, the 'Consultant' shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals, and business details, including information contained or transmitted electronically.

d. The 'Consultant' of foreign origin shall disclose the name and address of the Agents/ representatives in India, if any. Similarly, the Consultant/ Contractors of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further details, as mentioned in the "Guidelines on Indian Agents of Foreign Suppliers", shall be disclosed by the Consultant. Further, as mentioned in the Guidelines, all the payments made to the Indian agent/ representative must be in Indian Rupees only. A copy of the "Guidelines on Indian Agents of Foreign Suppliers" is placed in the Appendix to this agreement.

e. The 'Consultant' shall, when presenting their Proposal, disclose any and all payments made, are committed to, or intends to make to agents, brokers, or any other intermediaries in connection with the contract award.

f. Consultant who has signed the Integrity Pact shall not approach the Courts while representing the matter to IEMs and shall wait for their decision in the matter.

(2) The 'Consultant' shall not instigate third persons to commit offences outlined above or be an accessory to such offences.

**Section 3 - Disqualification from Procurement Process and exclusion from future contracts**

If the 'Consultant', before award or during execution, has committed a transgression through a violation of Section 2, above or in any other form such as to put their reliability or credibility in question, the Principal is entitled to disqualify the 'Consultant' from the Procurement Process or take action as per the procedure mentioned in the "Guidelines on Banning of business dealings".

**Section 4 - Compensation for Damages**

(1) If the Principal has disqualified the 'Consultant' from the Procurement Process prior to the award according to Section 3, the Principal is entitled to demand and recover from the 'Consultant' the damages equivalent to Earnest Money Deposit/ Bid Security.

(2) If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Consultant liquidated damages of the contract value or the amount equivalent to Performance Bank Guarantee.

**Section 5 - Previous transgression**

(1) Consultant declares that no previous transgressions occurred in the last three years with any other Company in any country conforming to the anti-corruption approach or with any Public Sector Enterprise in India that could justify his exclusion from the Procurement Process.

(2) If the Consultant makes an incorrect statement on this subject, he can be disqualified from the Procurement Process, or action can be taken as per the procedure mentioned in "Guidelines on Banning of business dealings".

**Section 6 - Equal treatment of all Consultants/ Contractors/ Subcontractors**

(1) In the case of Sub-contracting, the Principal Consultant shall take responsibility for the adoption of the Integrity Pact by the Sub-contractor.

(2) The Principal shall enter into agreements with identical conditions as this one with all Consultants and Contractors.

(3) The Principal shall disqualify from the Procurement Process all Consultants who do not sign this Pact or violate its provisions.

**Section 7 - Criminal charges against violating Consultant(s)/ Consultant(s)/ Subcontractor(s)**

If the Principal obtains knowledge of the conduct of a Consultant, Consultant or Subcontractor, or of an employee or a representative or an associate of a Consultant, Consultant or Subcontractor, which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal shall inform the same to the Chief Vigilance Officer.

**Section 8 - Independent External Monitor**

(1) The Principal appoints a competent and credible Independent External Monitor for this Pact after approval by Central Vigilance Commission. The task of the Monitor is to review independently and objectively whether and to what extent the parties comply with the obligations under this agreement.

(2) The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. The Monitor would have access to all Contract documents whenever required. It shall be obligatory for him/ her to treat the information and documents of the Consultants/ Contractors as confidential. He/ she reports to the Head of the Procuring Organisation.

(3) The Consultant(s)/ Consultant(s) accepts that the Monitor has the right to access, without restriction, all Project documentation of the Principal, including that provided by the Consultant. The Consultant shall also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to their project documentation. The same is applicable to Sub-contractors.

(4) The Monitor is under contractual obligation to treat the information and documents of the Consultant(s)/ Sub-contractor(s) with confidentiality. The Monitor has also signed declarations on 'Non-Disclosure of Confidential Information' and ofAbsence of Conflict of Interest. In case of any conflict of interest arising at a later date,the IEM shall inform the Head of the Procuring Organisation and recuse himself/ herselffrom that case.

(5) The Principal shall provide to the Monitor sufficient information about all meetings among the parties related to the Project, provided such meetings could have an impact on the contractual relations between the Principal and the Consultant. The parties offer the Monitor the option to participate in such meetings.

(6) As soon as the Monitor notices, or believes to have noticed, a violation of this agreement, he shall so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can, in this regard, submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action, or tolerate action.

(7) The Monitor shall submit a written report to the Head of the Procuring Organisation within 8 to 10 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.

(8) If the Monitor has reported to the Head of the Procuring Organisation a substantiated suspicion of an offence under the relevant IPC/ PC Act, and the Head of the Procuring Organisation has not, within the reasonable time, taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.

(9) The word 'Monitor' would include both singular and plural. **Section 9 - Pact Duration**

This Pact begins when both parties have legally signed it. It expires for the Consultant 12 months after the last payment under the contract and for all other Consultants 6 months after the contract has been awarded. Any violation of the same would entail disqualification of the Consultants and exclusion from future business dealings.

If any claim is made/ lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above unless it is discharged/ determined by the Head of the Procuring Organisation.

**Section 10 - Other provisions**

(1) This agreement is subject to Indian Law. The place of performance and jurisdiction is the Registered Office of the Principal, i.e., New Delhi.

(2) Changes and supplements, as well as termination notices, need to be made in writing. Side agreements have not been made.

(3) If the Consultant is a partnership or a consortium, this agreement must be signed by all partners or consortium members.

(4) Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties shall strive to come to an agreement with their original intentions.

(5) Issues like Warranty/ Guarantee etc., shall be outside the purview of IEMs.

(6) In the event of any contradiction between the Integrity Pact and its Appendix, the Clause in the Integrity Pact shall prevail.

For and on behalf of the Principal

(Name of the Officer and Designation) (Office Seal)
For and on behalf of ‘Consultant.’

(Name of the Officer and Designation) (Office Seal)
For and on behalf of the Principal Place
Date Witness 1:
(Name & Address) Witness 2:
(Name & Address)

# Appendix to Integrity Pact
# Guidelines for Indian Agents of Foreign Suppliers

1.0 There shall be compulsory registration of agents for all Global (Open) Tender and Limited Tender. An agent who is not registered with 'The Principal' shall apply for registration in the registration form withthe appropriate unit.

1.1 Registered agents shall file an authenticated Photostat copy duly attested by a Notary Public/ Original certificate of the Principal confirming the agency agreement. It should cover - the precise relationship, services to be rendered, and mutual interests in business - generally and/ or specifically for the tender. Any commission/ remuneration/ salary/ retainership, which the agent or associate receives in India or abroad from the Principal, whether should be brought on record in the Agreement and be made explicit.

1.2 Wherever the Indian representatives have communicated on behalf of their principals and the foreign parties have stated that they are not paying any commission to the Indian agents, and the Indian representative is working on the basis of salary, or a retainer, a written declaration to this effect should be submitted by the party (i.e., Principal) before finalizing the order.

2.0 Disclosure of particulars of agents/ representatives in India, if any.

2.1 Consultants of Foreign nationality shall furnish the following details in their offers:

2.1.1 The 'Consultant' of foreign origin shall disclose the name and address of the agents/ representatives in India, if any and the extent of authorization and authority given to commit the Principals. In case the agent/ representative be a foreign Company, it shall be confirmed whether it is an existing Company and details of the same shall be furnished.

2.1.2 The amount of commission/ remuneration included in the quoted price(s) for such agents/ representatives in India.

2.1.3 Confirmation of Consultant that the commission/ remuneration, if any, payable to his agents/ representatives in India, may be paid by 'The Principal' in Indian Rupees only.

2.2 Consultants of Indian Nationality shall furnish the following details in their offers:

2.2.1 The 'Consultant' of Indian Nationality shall furnish the name and address of the foreign principals,if any, indicating their nationality as well as their status, i.e., whether manufacturer or agents of manufacturer holding the Letter of Authority of the Principal authorizing the agent specifically to make an offer in India in response to tender either directly or through the agents/ representatives.

2.2.2 The amount of commission/ remuneration included in the price (s) quoted by Consultant for himself.

2.2.3 Confirmation of the foreign principals of Consultant that the commission/ remuneration, if any, reserved for Consultant in the quoted price(s), may be paid by 'The Principal' in India in equivalent Indian Rupees on satisfactory completion of the Project or supplies of Services.

2.3 In either case, in the event of contract materializing, the terms of payment shall provide for payment of the commission/ remuneration, if any, payable to the agents/ representatives in India in Indian Rupees on expiry of 90 days after the discharge of the obligations under the contract.

2.4 Failure to furnish correct and detailed information as called for in clauses above shall render the concerned Proposal liable to rejection or, in the event of a contract materializing, the same liable to termination by 'The Principal'. Besides this, there would be a penalty of banning business dealings with 'The Principal' or damage or payment of a named sum.

# FORMATS

# Format 1: Contract Form

(Ref ITC-clause 13)

The President of India, through Head of Procurement Procuring Organisation

[Complete address of the Procuring Entity] Contract No……. dated..... To

Consultant [Write Name]

[Complete address of the Consultant] Subject:

Ref: 1. This office's Letter of Award No……..….. dated ……..

.2This office RFP Document No. RFP No./ xxxx; Tender Title: Consultancy Services, dated and subsequent

Amendment No.……., dated (If any). (Hereinafter referred to as 'the RFP Document')

3 Your Tender No…… dated…….. and subsequent communication(s)/ Revised Offer No…… dated (If any), exchanged between you and this office in connection with this tender. (Hereinafter

referred to as 'Your Offer') Dear Sir/ Madam,

Your Proposal referred above, read with subsequent letters mentioned above, for the Services stipulated in the Schedules annexed herewith, have been accepted. Terms and conditions in this Contract and the documents listed in the clause below shall apply.

Note: The words, expressions, definitions, and abbreviations used in this Contract shall have the same meanings as those assigned in the General Condition of Contract enclosed.

2) The following documents attached hereto shall be deemed to form an integral part of this Contract:

a) The General Conditions of the Contract;

b) The Special Conditions of the Contract;

c) Appendices:

d) Appendix A: Terms of Reference

e) Appendix B: Key Experts

i) Appendix C: Remuneration Cost Estimates

ii) Appendix D: Reimbursable Cost Estimates

iii) Appendix E-1:Bank Guarantee Format for Performance Security

iv) Appendix E-2:Bank Guarantee Format for Advance Payments

In the event of any inconsistency between the documents, the following order of precedence shall prevail: this Contract Form; the Special Conditions of Contract; the General Conditions of Contract; Appendix A; Appendix B; Appendix C and Appendix D; Appendix E-1; and Appendix E-2. Any reference to this Contract shall include, where the context permits, a reference to its Appendices.

3) Key Information

a) **Summary of Costs**

| Name of Work: | | Procurement of Consultancy Services | | | | | |
|---|---|---|---|---|---|---|---|
| Tender No: | | Tend No./ xxxx | | | | | |
| Name of the Bidder/ Bidding Firm/ Company: | | | | | | | |
| | Remuneration as per Appendix C | CGST %age And Amount | SGST %age And Amount | IGST %age And Amount | Cess %age And Amount | imbursables per Appendix D | Total Cost Cotract with Taxes |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| %age of GST | | | | | | | |
| Cost in Figs | | | | | | | |
| Cost in Words | | | | | | | |

B) Timelines

i) Effective Date of The Contract as per Work Plan in Appendix A

ii) Completion Date of the Services as per Work Plan in Appendix A

4) The mutual rights and obligations of the Procuring Entity and the Consultant shall be as outlined in the Contract, in particular:

a) the Consultant shall carry out the Services in accordance with the provisions of the Contract; and

b) the Procuring Entity shall make payments to the Consultant in accordance with the provisions of the Contract.

(Signature, name and address of [Procuring Entity]'s authorized, official) For and on behalf of the President of India

Received and accepted this Contract ……..

(Signature, name, and address of the Consultant's executive duly authorized to sign on behalf of the Consultant. For a joint venture, either all members shall sign or only the lead member, in which case a power of attorney to sign on behalf of all members shall be attached.)

For and on behalf of ……
(Name and address of the Consultant)
…….
…….
(Seal of the Consultant) Place:_____Date:

# Appendix A: Description of Services

RFP Document No. RFP No./ xxxx; Tender Title: Consultancy Services

Contract No_____; Date_____

Consultant's Name_____

[This Appendix shall include the final Terms of Reference (TORs), approach,Methodology and Work Schedule and Planning of Deliverables, worked out by the Procuring Entity and the Consultant during the negotiations; dates for completion of various tasks; location of performance for different tasks; detailed reporting requirements; Procuring Entity's input, including counterpart personnel assigned by the Procuring Entity to work on the Consultant's team; specific tasks that require prior approval by the Procuring Entity.]

# 1. Terms of  Reference

Insert the text based on Section VI (Terms of Reference) of the RFP and modify it based on Forms T-1 through Form T-7 in the Consultant's Proposal. Highlight the changes to Section VI of the RFP]

## 2. Approach, Methodology and Quality Control plan

Insert the text based on Form T-4 in the Consultant's Proposal as negotiated between the Procuring Entity and the Consultant.

## 3.Work Schedule and Planning for Deliverables

Insert the text based on Form T-5 in the Consultant's Proposal as negotiated between the Procuring Entity and the Consultant.

# Appendix B: Key Experts

RFP Document No. RFP No./ xxxx; Tender Title: Consultancy Services

Contract No ; Date

Consultant's Name

[Insert a table based on Form T-6 of the Consultant's Technical Proposal and finalized at the Contract's negotiations. Attach the CVs (updated and signed by the respective Key Experts) demonstrating the qualifications of Key Experts.]

The Consultants Key personnel and all other Professional / Sub Professional / Support Staff/Sub-Consultancy personnel shall work 6 days (Mondays through Saturday) every week and observe the Gazetted Holidays of Government of India as Holidays. The Consultant shall work as per the work program of the EPC Contractor. In this context in case the work plan of the Consultant needs suitable modifications, the same shall be carried out and submitted to the client for consideration. The Consultants hours of work normally shall match with that of Contractor's activities on the site. No extra remuneration shall be claimed or paid for extra hours of work required in the interest of Project completion.

ln addition, total Leave for 12 days CL shall be permitted in a year to each Key Personnel/ Sub-Professional with prior intimation to the Authority. Out of this, a maximum of 3 Cls can be availed in a quarter and the period of the Cls would be counted as Key Personnel /Sub Professional being on duty. In respect of foreign personnel, one day per trip as travel time from and to the country of the Government shall be allowed

# Appendix B-1 :**MEDICAL CERTIFICATE OF FITNESS**

I have examined Shri / Kumari / Smt. ……..….
Son / Daughter of
Shri.....aged
……. Years, of village: ……..……..……
P.O. ……..……..P.S ……..……..……
…….. Dist.…….…… State …..…..……. PIN ……
and certify that, he / she is free from deafness, defective vision (including colour vision) or any other infirmity, mental or physical, likely to interfere with the efficiency of his / her work and found him / her possessing good health.

This certificate is being given to him /her for the purpose of …… …….

Signature of Candidate
(To be signed in presence of the Medical Officer)

Signature of Medical Officer: ……..
Name of Medical Officer: Dr. ……...…….
Registration No. …….

Dated: Seal

**Note:**

**1. Medical certificate granted by a qualified medical practitioner holding at least M.B.B.S. Degree and registered with Medical Council of India, shall only be valid. The date of issue of the medical certificate should be within3 month from the date of application.**

**2. This medical Certificate shall be submitted with the Proposal for all the key personnel whose CV are to be evaluated. The key personnel without Medical fitness certificate will not be evaluated.**

**3. For all other Sub Professional / Support Staff/Sub-Consultancy personnel the same shall be submitted at the time of joining at project.**

**APPENDIX C-: FINANCIALPROPOSALSUBMISSIONFORM FROM: (Name of Firm)**
**Subject:**

We, the undersigned, offer to provide the consulting services for the above in accordance with your Request for Proposal dated [Date], and our proposal. Our attached financial proposal is for the sum of [Amount in words and figures]. This amount is exclusive of the local taxes which we have estimated at (Amount in Words and Figures). The percentage of overhead charges shall be [Amount in words and figures]

Our financial proposal shall be binding upon us upto the expiration of the validity period of the proposal, i.e., [Date].
We undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in India namely "Prevention of Corruption Act 1988".

Commission and gratuities, if any, paid or to be paid by us to agents relating to this proposal and contract execution, if we are awarded the contract, are listed below:

Name and Address of Agents ..... Amount and Currency ..... ..... Purpose of Commission or Gratuity ……..…… …….

We understand you are not bound to accept any proposal you receive. We
remain,
Yours sincerely,

Managing Director/Head of the firm/ Authorised Representative of the firm* Name of the firm Address *Lead Member in case of JV

APPENDIX C-1

# Remuneration Cost Estimates
## (To be filled by the Authority before inviting Bid and amount to Be quoted by bidder)

RFP Document No. RFP No./ xxxx; Tender Title: Consultancy Services Contract No_____ _____; Date_____Consultant's Name_____

| S. No. | Description | Amount (Rs.) |
|---|---|---|
| I | Remuneration for Local Professional Staff | |
| II | Supporting Staff | |
| III | Transportation | |
| IV | Duty Travel to Site | |
| V | Office Rent | |
| VI | Office Supplies, Utilities and Communication | |
| VII | Office Furniture and Equipment | |
| VIII | Reports and Document Printing | |
| IX | Road Survey Equipment | |
| X | Contingencies | |
| Xi | %Overhead of the firm on S.No. I to IX above. (The % overhead cannot be quote@ less than 10%. If remuneration quote @ less than 10%, the financial proposal will be non-responsive and will not be considered for further evaluation. | |
| | Sub Total | |
| | Goods and Services Tax Payable in India | |
| | Total Costs (Including Tax) | |

Note: Payments will be made as per stipulations of the Conditions of Contract.
We, the undersigned, offer to provide the consulting services for the above in accordance with your Request for Proposal dated [Date], and our proposal. Our attached financial proposal is for the sum of

## Annex to Appendix C-1: BREAKDOWN OF LOCAL CURRENCY COSTS

(To be quoted by the bidder)

### II. REMUNERATION FOR LOCAL PROFESSIONAL STAFF

**Normal Highway Project**
**For Project with Construction Period of 36 months**

| No. | Position | Name | Construction Period 36 months + DLP 120 months | | |
|---|---|---|---|---|---|
| | | | Rate | No. of man-months* | Amount |
| | **Professional Staff** | | | | |
| 1. | Team Leader cum Senior Highway Engineer | | | 66 | |
| 2. | Resident cum Highway Engineer | | | 156 | |
| 3. | Bridge/Structural Engineer | | | 56 | |
| 4. | Senior Pavement Specialist | | | 12 | |
| 5. | Senior Quality cum Material Expert | | | 36 | |
| 6. | Planning Engineer | | | 15 | |
| 7. | Road Safety Expert | | | 32 | |
| | **Sub – Total** | | | 373 | |
| | **Sub-professional** | | | | |
| 1. | Survey Engineer | | | 56 | |
| 2. | Assistant Highway Engineer(2nos) | | | 192 | |
| 3. | CAD Expert | | | 15 | |
| 4. | Environmental Engineer | | | 7 | |
| 5. | Assistant Bridge Engineer | | | 36 | |
| 6. | Assistant Quality cum Material Engineer(2 nos) | | | 72 | |

| | | | | | |
|---|---|---|---|---|---|
| 7. | Electrical Engineer | | | 13 | |
| 8. | HTMS/Toll Expert | | | 0 | |
| 9. | Quantity Surveyor | | | 52 | |
| 10. | Horticulture cum Landscaping Expert | | | 46 | |
| 11. | Lab Technician | | | 72 | |
| 12. | Document/Data entry operator | | | 36 | |
| | SubTotal | | | 597 | |
| | **Total** | | | 970 | |

*For Project with Construction Period of 24 months*

| No. | Position | Name | Construction Period 24 months + DLP60 months | | |
|---|---|---|---|---|---|
| | | | Rate | No. of man-months* | Amount |
| | **Professional Staff** | | | | |
| 1. | Team Leader cum Senior Highway Engineer | | | | |
| 2. | Resident cum Highway Engineer | | | | |
| 3. | Bridge/Structural Engineer | | | | |
| 4. | Senior Pavement Specialist | | | | |
| 5. | Senior Quality cum Material Expert | | | | |
| 6. | Contract specialist cum Planning Engineer | | | | |
| 7. | Road Safety Expert | | | | |
| | **Sub – Total** | | | | |
| | **Sub-professional** | | | | |
| 1. | Survey Engineer | | | | |
| 2 | Highway Design Engineer | | | | |
| 3 | Assistant Highway Engineer | | | | |
| 4 | CAD Expert | | | | |
| 5 | Environmental Engineer | | | | |
| 6 | Bridge Design Engineer | | | | |
| 7 | Assistant Bridge Engineer | | | | |
| 8 | Assistant Quality cum Material Engineer | | | | |
| 9 | Electrical Engineer | | | | |
| 10 | HTMS/Toll Expert | | | | |
| 11 | Quantity Surveyor | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 12. | Horticulture cum Landscaping Expert | | | | |
| 13 | Lab Technician | | | | |
| | SubTotal | | | | |
| | **Total** | | | | |

***The man-month against each key personnel/sub – professional shall be same as specified in Enclosure A of TOR.**

*For Standalone Bridge Project:*

| ~~No.~~ | ~~Position~~ | ~~Name~~ | ~~Construction Period 36 months + DLP60 months~~ | | |
|---|---|---|---|---|---|
| | | | ~~Rate~~ | ~~No. of man-months*~~ | ~~Amount~~ |
| | ~~Professional Staff~~ | | | | |
| ~~1.~~ | ~~Team Leader cum Senior Bridge Engineer~~ | | | | |
| ~~2.~~ | ~~Resident cum Pavement Specialist~~ | | | | |
| ~~3.~~ | ~~Bridge/Structural Engineer~~ | | | | |
| ~~4.~~ | ~~Senior Contract Specialist~~ | | | | |
| ~~5.~~ | ~~Senior Quality cum Material Expert~~ | | | | |
| ~~6.~~ | ~~Contract Specilist cum Planning Engineer~~ | | | | |
| ~~7.~~ | ~~Road Safety Expert~~ | | | | |
| | ~~Sub – Total~~ | | | | |
| | ~~Sub-professional~~<br><br>~~(To be decided by the Authority as per requirement of the Project at the time of preparation of RFP)~~ | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | ~~SubTotal~~ | | | | |
| | ~~Total~~ | | | | |

**For Standalone Tunnel Project:**

| ~~No.~~ | ~~Position~~ | ~~Name~~ | ~~Construction Period 60 months + DLP60 months~~ | | |
|---|---|---|---|---|---|
| | | | ~~Rate~~ | ~~No. of man-months*~~ | ~~Amount~~ |
| | ~~Professional Staff~~ | | | | |
| ~~1.~~ | ~~Team Leader cum Senior Tunnel Expert~~ | | | | |
| ~~2.~~ | ~~Resident Engineer cum Excavation Specialist~~ | | | | |
| ~~3.~~ | ~~Senior Geotechnical Expert~~ | | | | |
| ~~4.~~ | ~~Tunnel Design Engineer~~ | | | | |
| ~~5.~~ | ~~Tunnel Safety Expert~~ | | | | |
| ~~6.~~ | ~~Senior Geologist~~ | | | | |
| ~~7.~~ | ~~Contract Specialist cum planning Engineer~~ | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | **Sub – Total** | | | | |

Sub Professional Staff

| **No.** | **Position** | **Name** | **Construction Period 36 months + DLP 120 months** | | |
|---|---|---|---|---|---|
| | | | **Rate** | **No. of man-months*** | **Amount** |
| | **Sub-professional**<br><br>**(To be decided by the Authority as per requirement of the Project at the time of preparation of RFP)** | | | 156 | |
| | | | | | |
| | | | | | |
| | | | | | |
| | Sub Total | | | | |
| | **Total** | | | | |

**II. <u>Support Staff</u>**

| **No.** | **Position** | **Name** | **Staff Months** | **Billing Rate( )** | **Amount( )** |
|---|---|---|---|---|---|
| 1. | Office Manager | TBN | 156 | | |
| 2. | Accountant cum Cashier | TBN | 156 | | |
| 3. | Steno cum Computer Operator | TBN | 156 | | |
| 4. | Office Boy (1 no) | TBN | 156 | | |
| | | | | Total : | |

**III. <u>Transportation</u> (Fixed rate on rental basis)**

The vehicles provided by the Consultants shall include the cost for rental, drivers, operation, maintenance, repairs, insurance, etc. for all complete approx. 4000km/month run

| **Sr. No** | **Description of Vehicles** | **Qty. (No. of vehicle-month)** | | **Total** | **Rate/ Vehicle - Month** | **Amount** |
|---|---|---|---|---|---|---|
| | | **During Construction Period** | **During Development and O&M Period** | | | |
| 1 | Innova or equivalent | 1x36 | | 36 | | |
| 2 | (2) Balero or equivalent | 2x36 | 1x120 | 192 | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 3. | 1 Pickup Van | 1x36 | | 36 | | |
| | **Total** | | | | | |

Duty Travel to Site (Fixed Costs) (For all Lengths of projects) : Professional and Sub-Professional Staff

| **Trips** | **Number of Trips** | **Rate*** | **Amount** |
|---|---|---|---|
| 20 | | | |
| | | | |

* Rate quoted includes Hotel charges, travel cost etc. complete.

**IV. Office Rent (Fixed Costs)– Minimum 200 sqm area of office shall be rented.** The rent cost includes electricity and water charges, maintenance, Cleaning, repairs, etc. complete.

| Nos. of Months | Rate/month | Amount |
|---|---|---|
| 156 | | |

The rent cost includes electricity and water charges, maintenance, cleaning, repairs, etc. complete.

**V. Office Supplies, Utilities and Communication (Fixed Costs)**

| **No** | **Item** | **Months** | **Monthly Rate** | **Amount in Rs.** |
|---|---|---|---|---|
| 1. | Office Supplies | 156 | | |
| 2. | Drafting Supplies | 156 | | |
| 3. | Computer Running Costs | 156 | | |
| 4. | Domestic and International Communication | 156 | | |

**VI. Office Furniture and Equipment (Rental)**

The cost shall include rental charges towards all such furniture and equipment as required for proper functioning of office. Office furniture shall include executive tables, chairs, visitor chairs, steel almirahs, computer furniture, conference table etc. Office equipment shall include as a minimum of telephone (2 external & 10 internal lines), photocopier (15ppm, 12000 copies per month with A3 & A4 input) fax machine, PCs(5 No., Intel Core 2 Duo E8300, 19" colour TFT, Cache-6MB, RAM-2 GB, HDD-250 GB, DVD Writer, Key board, optical scroll mouse, MS- Windows Vista Business, pre-loaded anti-virus etc.), laser printers (2 no., 14 ppm, 266 MHZ, 5000 pages per month, 600x600 dpi or better etc., Engineering Plan printer (1 no.), binding machine (1 no.), plotter A0 size, overhead projector, AC (4 no., 1.5 Ton), Water Coolers (as required)etc.

| **Nos. of Months** | **Rate/month** | **Amount** |
|---|---|---|
| 156 | | |

**VIA Reports and Document Printing**

| No. | Description | No. of Reports | No. of Copies per Report | Total Nos. of copies | Rate per Copy ( ) | Amount |
|---|---|---|---|---|---|---|
| 1 | Monthly reports<br>(Design and Construction) | 156 | 3 | 468 | | |
| 2 | Half yearly Reports | 52 | 3 | 156 | | |
| 3 | Various others reports as provided in the Concession Agreement such as Completion Report | 10 | 3 | 30 | | |
| | | | | **Total** | | |

**VII. Road Survey Equipment**

The cost shall include carrying out survey using equipment, manpower, software and report processing.

| Item | Kms | Rate per km (INR) | No of times survey to be conducted | Amount (INR) |
|---|---|---|---|---|
| Surface defects detection and roughness measurement using Network Survey Vehicle | 18.1 | | 26 | |
| Pavement strength measurement using FWD | 18.1 | | 13 | |
| Bridge inspection using Mobile Bridge Inspection Unit | 18.1 | | 26 | |
| Road signs inspection using Retro Refractometer | 18.1 | | 26 | |
| | | | **Total** | |

***VIII.*** *Overhead in % of total cost*

| | |
|---|---|
| Overhead | …..% |

**The consultant shall quote a fixed percentage of overhead, which may include overhead charges over the salary of key personnel, sub professional staff and other parts of financial proposal except contingencies, cost of the coordinator/ other support staff and profits.**

APPENDIX C-2

# Amount of performance Security Quoted by Bidder (To be quoted by Bidder)

RFP Document No. RFP No./ xxxx; Tender Title: Consultancy Services Contract No _____; Date_____

Consultant's Name_____

| | |
|---|---|
| Amount of Performance security to be submitted by bidder | Rs..... ( Minimum amount to be 5% of the financial quote) |

# Appendix D-1: Bank Guarantee Format for Performance Security

*(The Bank Guarantee shall be on a Stamp Paper of appropriate value in accordance with Stamp Act and shall be purchased in the name of the guarantee issuing Bank or the Party on whose behalf the BG is being issued.)*

(Ref ITC-clause 13.1.2 and GCC-clause 5.8)

Ref Bank Guarantee No……

Date……...

To

The President of India, through

Head of Procurement Procuring

Organisation

[Complete address of the Procuring Entity]

Whereas M/s……with its Registered/ Head Office at……. (name and address of the Consultant, hereinafter called "the Consultant", which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) has undertaken, in pursuance of contract no …….. date ..... to delivery … ..... (description of Services) (hereinafter called "the contract").

And Whereas you (unless repugnant to the context or meaning thereof, including your successors, administrators, executors and assigns) have stipulated in the said contract that the Consultant shall furnish you with a bank guarantee by a Commercial bank for the sum specified therein as security for compliance with its obligations as per the contract;

And Whereas we …… with our Head Office at .....(name and address of the Bank, hereinafter referred to as the 'Bank', which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) have agreed to give the Consultant such a bank guarantee.

Now, Therefore, we hereby affirm that we are guarantors and responsible to you, on behalf of the Consultant, up to a total of …….(amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the Consultant to be in default under the contract and without cavil or argument, any sumor sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein,notwithstanding any difference between you and the Consultant or any dispute pending before any Court, Tribunal, Arbitrator or any other authority.

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

The Bank undertakes not to revoke this guarantee during its currency without your previous consent and further agrees that the guarantee herein contained shall continue to be enforceable till you discharge this guarantee. This guarantee will not be discharged due to a change in the constitution of the Bank or the Consultant's.

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

This guarantee shall be valid until the ……day of …….20……

Our…….branch at……*(Name & Address

of the ..... *(branch) is liable to pay the guaranteed amount depending on the filing of a claim and any part thereof under this Bank Guarantee only and only if you serve upon us at our..... * branch a written claim or demand and received by us at our ……..* branch on or before Dt otherwise, the bank shall be discharged of all liabilities under this guarantee after that.

(Signature of the authorized officer of the Bank)

…….

Name and designation of the officer

……

Seal, name & address of the Bank and address of the Branch

*Preferably at the authority's headquarters competent to sanction the expenditure for procurement of goods/services or at the concerned district headquarters or the state headquarters.

# Appendix D-2: Bank Guarantee Format for Advance Payment

*(The Bank Guarantee shall be on a Stamp Paper of appropriate value in accordance with Stamp Act and shall be purchased in the name of the guarantee issuing Bank or the Party on whose behalf the BG is being issued.)*

(Ref GCC-clause 10.5.2)

Ref Bank Guarantee No……

Date……..

To

The President of India, through

Head of Procurement

Procuring Organisation

[Complete address of the Procuring Entity]

Whereas M/s……with its Registered/ Head Office at……. (name and address of the Consultant, hereinafter called "the Consultant", which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) has undertaken, in pursuance of contract no …….. date…….. to delivery ……(description of Services) (hereinafter called "the contract").

And Whereas you (unless repugnant to the context or meaning thereof, including your successors, administrators, executors, and assigns) have agreed in pursuance of the said terms and conditions of the contract to make an advance payment of Rs..... (Rupees.....only) to the Contractor on the Contractor furnishing a Bank Guarantee in the manner herein contained.;

And Whereas we …… with our Head Office at……. (name and address of the Bank, hereinafter referred to as the 'Bank', which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby affirm that we are guarantors and responsible to you, on behalf of the Consultant, up to a total of ……(amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the Consultant to be in default under the contract and without cavil or argument, any sumor sums within the limits of (amount of guarantee) as aforesaid, without your needingto prove or to show grounds or reasons for your demand or the sum specified therein,notwithstanding any difference between you and the Consultant or any dispute pending before any Court, Tribunal, Arbitrator or any other authority.

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

The Bank undertakes not to revoke this guarantee during its currency without your previous consent and further agrees that the guarantee herein contained shall continue to be enforceable till you discharge this guarantee. This guarantee will not be discharged due to a change in the constitution of the Bank or the Consultant's.

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

This guarantee shall be valid until the ……day of …….20……

Our……branch at……*(Name & Address of

the

……*(branch) is liable to pay the guaranteed amount depending on the filing of a claim and any part thereof under this Bank Guarantee only and only if you serve upon us at our……* branch a written claim or demand and received by us at our ……..* branch on or before Dt …… otherwise, the bank shall be discharged of all liabilities under this guarantee after that.

(Signature of the authorized officer of the Bank)

…….

…….

Name and designation of the officer

……

Seal, name & address of the Bank and address of the Branch

*Preferably at the authority's headquarters competent to sanction the expenditure for procurement of goods/services or at the concerned district headquarters or the state headquarters.

## Format 2: Authorization To attend Pre–Proposal

(Refer to ITC-clause 7)

(on Company Official Letter Head)

Consultant's Name_____

[Address and Contact Details]

Consultant's Reference No._____ Date…….

To

Head of Procurement

Procuring Organisation

[Complete address of the Procuring Entity]

Ref: RFP Document No. RFP No./ xxxx; Tender Title: Consultancy Services

Subject: Authorization to attend Pre-Proposal Conference on_____(date).

Following persons are hereby authorized to attend the Pre-Proposal Conference for the tender mentioned above on behalf of

_____(Consultant) in the order of preference given below.

| Sr. | Name | Government Photo ID Type/ Number |
|---|---|---|
| I. | | |
| II. | | |
| Alternate Representative | | |

Note:

1. Maximum of two representatives (carrying valid Government photo IDs) shall be permitted to attend the Pre-Proposal opening. An alternate representative shall be permitted when regular representatives cannot attend.
2. Permission to enter the hall where the pre-Proposal conference is conducted may be refused if authorization as prescribed above is not submitted.

Signatures of

Consultant or

The officer authorized to sign the Proposal.

Documents on behalf of the Consultant

[name & address of Consultant and seal of company]

Format 3: Authorization to Attend Pre-Proposal Conference

## Format 3: Format of Insurance Surety Bond
## FORM OF SURETY BOND

# [Performance Security]

To,
<Agency>

**WHEREAS:**

(A) I (the **"Consultant")** and The President of India, through the Secretary (RT&H)/ Chairman NHAI/ MD NHIDCL, in the MoRTH/NHAI/NHIDCL (the **"Authority")** have to execute and enter into a consultancy agreement (the **"Agreement")** in pursuance of the LOA issued to the Consultant *vide* ref no. dated _____ whereby the Authority has agreed to the Consultant rendering consultancy services for _____[2], subject to and in accordance with the provision of the Agreement.

(B) The Consultant is required to furnish a performance security to the Authority for a sum of Rs. _____/- (Rupees _____only) (the **"Surety Bond Amount")** as security for due and faithful performance of its obligations, under and in accordance with the Agreement, during the Agreement Period (as defined in the Agreement).

(C) We, [3] having registered office at _____[4] through our branch at ____ [5] (hereinafter referred to as the 'Surety Insurer'), which expression shall, unless repugnant to the context **or** meaning thereof, include its successors, administrators, executors and assigns) have agreed to furnish this Surety Bond by way of performance security.

**NOW, THEREFORE,** the Surety Insurer hereby, unconditionally and irrevocably guarantees and affirms as follows:

**1.** The Surety Insurer hereby unconditionally and irrevocably guarantees the due and faithful performance of the Consultant's obligations during the Agreement Period under and in accordance with the Agreement, and agrees and undertakes to pay to the Authority, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Consultant, such sum or sums up to an aggregate sum of the Surety Bond Amount as the Authority shall claim, without the Authority being required to prove or to show grounds or reasons for its demand and/ or for the sum specified therein.

2. A letter from the Authority, under the hand of an officer not below the rank of General Manager/Superintending Engineer in the <Agency>, that the Consultant has committed default in the due and faithful performance of all or any of its obligations under and in accordance with the Agreement shall be conclusive, final and binding on the Surety Insurer. The Surety Insurer further agrees that the Authority shall be the sole judge as to whether the Consultant is in default in due and faithful performance of its obligations during the Agreement Period under the Agreement and its decision that the Consultant is in default shall be final, and binding on the Surety Insurer, notwithstanding any differences between the Authority and the Consultant, or any dispute between them pending before any court. tribunal, arbitrators or any other authority or body, or by the discharge of the Consultant for any reason whatsoever.

1. Name and registered address of the Consultant to be mentioned.
2 .Name of the project to be mentioned.
3 .Name of the Surety Insurer to be mentioned.
4. Registered Address of the Surety Insurer to be provided.
5 .Address of the issuing branch of the Surety Insurer to be mentioned.

3. In order to give effect to this Surety Bond, the Authority shall be entitled to act as if the Surety Insurer were the principal debtor and any change in the constitution or winding up of the Consultant or the Surety insurer, whether by their absorption, merger or amalgamation with any other entity or otherwise, shall not in any way or manner affect the liability or obligation of the Surety Insurer under this Surety Bond.

4. It shall not be necessary, and the Surety Insurer hereby waives any necessity, for the Authority to proceed against the Consultant before presenting to the Surety Insurer its demand under this Surety Bond.

5. The Authority shall have the liberty, without affecting in any manner the liability of the Surety Insurer under this Surety Bond, to vary at any time, the terms and conditions of the Agreement or to extend the time or period for the compliance with, fulfillment and/ or performance of all or any of the obligations of the Consultant contained in the Agreement or to postpone for any time, and from time to time, any of the rights and powers exercisable by the Authority against the Consultant, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Authority, and the Surety Insurer shall not be released from its liability and obligation under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the Consultant or any other forbearance, indulgence, act or omission on the part of the Authority or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Surety Insurer from its liability and obligation under this Surety Bond and the Surety Insurer hereby waives all of its rights under any such law.

6. This Surety bond is issued by the Insurer and held by the Authority towards performance security of the Consultant as required under clause _____of the Agreement[6] and is in addition to and not in substitution of any other surety bond or security which may hereafter be held by the Authority in respect of or relating to this Agreement.

7. Notwithstanding anything contained herein before, the liability of the Surety Insurer under the Surety Bond is restricted to the Surety Bond Amount, and this Surety Bond will remain in force for the period specified in paragraph 8 below and unless a demand or claim in writing is made by the Authority on the Surety Insurer under this Surety Bond, all rights of the Authority under this Surety Bond shall be forfeited, and the Surety Insurer shall be relieved from its liabilities hereunder.

8. The Surety Bond shall cease to be in force and effect on "_____"[7]. Unless a demand or claim under this Surety Bond is made in writing before the expiry of the Surety Bond, the Surety insurer shall be discharged from its liabilities hereunder.

9. The Surety Insurer undertakes not to revoke this Surety Bond during its currency, except with the previous express consent of the Authority in writing and declares and warrants that it has the power to issue this Surety Bond and the undersigned is duly authorised and has full powers to do so on behalf of the Surety Insurer.

10. The Surety Insurer agrees that it will not assign its obligation under this Surety Bond without the prior written consent of the Authority. The Authority will not unreasonably withhold its consent if the proposed assignee is of at least equal financial standing to the Surety Insurer and the assignee assumes in writing the obligations of the Surety Insurer under this Surety Bond at the same time or before the assignment.

[6]Reference of RFP clause can be mentioned here as the issuance of Insurance Surety Bond is a pre-condition for execution of the Agreement.

[7] (Date of issue)+ _____ ] months (As per Agreement)

11. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Surety Insurer at its above referred branch, which shall be deemed to have been duly authorized to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Authority that the envelope was so posted shall be conclusive.

12. The Surety Bond shall cover all the liabilities arising out of the Agreement from the date of its commencement and shall remain in force and effect for up to the date specified in paragraph 8 above or until it is released earlier by the Authority pursuant to the provisions of the Agreement.

13. This Surety Bond is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision. ICC Publication No.758, except that the supporting statement under Article 15(a) is hereby excluded.

14. This Surety Bond shall also be operatable at our _____[8] Branch at New Delhi, from whom, confirmation regarding the issue of this bond or extension/ renewal thereof shall be made available on demand. In the contingency of this bond being invoked and payment thereunder claimed, the said branch shall also accept such invocation on letter and make payment of amounts so demanded under the said invocation.

2. The Insurance Surety Bond shall be verified from the specific portal created for this purpose.

Signed and Sealed this _____Day of _____ _____

**SIGNED, SEALED AND DELIVERD**

For and on behalf of the Surety insurer by:

(Signature)

(Name)_____

(Designation)_____

(Code Number)_____

(Address)_____

[8] If Surety Bond is being issued from any other branch, any branch from New Delhi to be mentioned for operational purpose.