

GOVERNMENT OF TELANGANA

Request for Proposal (RFP)

For

Project Consultant for DPR Preparation, PMU and Technical, Financial and Transaction Advisory for the development of Hyderabad Regional Ring Road (Southern Part)

ROADS AND BUILDINGS DEPARTMENT

December 2024

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Disclaimer

The information contained in this Request for Proposal document ("RFP") or subsequently provided to Applicants, whether verbally or in documentary or any other form by or on behalf of the Authority or any of its employees or advisers, is provided to Applicants on the terms and conditions set out in this RFP and such other terms and conditions subject to which such information is provided.

This RFP is not an agreement or an offer by the Authority to the prospective Applicants or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in the formulation of their Proposals pursuant to this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived at by the Authority in relation to the Consultancy. Such assumptions, assessments and statements do not purport to contain all the information that each Applicant may require. This RFP may not be appropriate for all persons, and it is not possible for the Authority, its employees or advisers to consider the objectives, technical expertise and particular needs of each party who reads or uses this RFP. The assumptions, assessments, statements and information contained in this RFP, may not be complete, accurate, adequate or correct. Each Applicant should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments and information contained in this RFP and obtain independent advice from appropriate sources.

Information provided in this RFP to the Applicants may be on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The Authority accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on the law expressed herein.

The Authority, its employees and advisers make no representation or warranty and shall have no liability to any person including any Applicant under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, adequacy, correctness, reliability or completeness of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way in this Selection Process.

The Authority also accepts no liability of any nature whether resulting from negligence or otherwise however caused arising from reliance of any Applicant upon the statements contained in this RFP.

The Authority may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumption contained in this RFP.

The issue of this RFP does not imply that the Authority is bound to select an Applicant or to appoint the Selected Applicant, as the case may be, for the Consultancy and the Authority reserves the right to reject all or any of the Proposals without assigning any reasons whatsoever.

The Applicant shall bear all its costs associated with or relating to the preparation and submission of its Proposal including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by the Authority or any other costs incurred in connection with or relating to its Proposal. All such costs and expenses will remain with the Applicant and the Authority shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by an Applicant in preparation or submission of the Proposal, regardless of the conduct or outcome of the Selection Process.

1. INTRODUCTION

1.1. Background

- 1.1.1. To provide greater connectivity and accessibility to the citizen of the state of Telangana, Government of Telangana has envisaged development of a Regional Ring Road (RRR) circumferenceing the Outer Ring Road (ORR) of Hyderabad city. The Regional Ring Road (RRR) will be an access-controlled highway with radial distance 30-50 KM from the ORR. As part of the project, the Authority intends to focus on integrated regional growth plan encompassing on the development of the highway, its economic nodes (agri/ manufacturing clusters etc) and other ancillary value-added user services such as wayside amenities, ITMS, utility corridor etc.
- 1.1.2. Roads and Buildings Department of Government of Telangana (herein after known as "R&B Deptt, GoT" or "the Authority") is the nodal agency for development of the Hyderabad RRR. The Authority intends to Project Consultant for DPR Preparation, PMU and Technical, Financial and Transaction Advisory for the development of Hyderabad Regional Ring Road (Southern Part) and assistance to the Authority at apex level.

1.2. Request for Proposal

The Authority invites proposal from interested firms (the "Proposals") Project Consultant for DPR Preparation, PMU and Technical, Financial and Transaction Advisory for the development of Hyderabad Regional Ring Road (Southern Part) (the "Consultant") who shall assist the Authority at apex level in the form of Project Support Office (PSO) to develop the Regional Ring Road (RRR) (collectively the "Consultancy").

The Authority intends to select the Consultant through an open competitive bidding in accordance with the procedure set out herein.

1.3. Due diligence by Applicants

Applicants are encouraged to inform themselves fully about the assignment before submitting the Proposal and attending a Pre-Bid Conference on the date and time specified in Clause 1.10.

1.4. Sale of RFP Document

RFP document can be downloaded from the "e procurement" portal https://tender.telangana.gov.in. The Bidders shall submit an amount of Rs.15,000 + GST @ 18% and Transaction Fee payable to the service provider as per Government Guidelines as non-refundable cost of RFP document and Bid Security of Rs.25,00,000/- (Rupees Twenty Five Lakhs only) in the form of Bank Guarantee in favour of "Managing Director, TGRDC" to be valid for 6 Months from the Proposal Due Date of Submission of RFP.

1.5. Validity of the Proposal

The Proposal shall be valid for a period of not less than 120 days from the Proposal Due Date (the "PDD").

1.6. Brief description of the Selection Process

The proposals shall be evaluated by a Committee constituted by the Roads and Buildings Department, Government of Telangana. A three-stage procedure will be adopted in evaluating proposals.

The Authority has adopted a three-stage procedure (collectively the "Selection Process") in evaluating the Proposals. First, eligibility of the bidder will be examined and bidders satisfying requirements in Clause 3.1 shall be declared "Pass" in Proof of Eligibility stage and the Technical Proposals of only those bidders shall be opened and evaluated further. In the second stage, evaluation will be carried out as specified in Clause 3.2. Based on this technical evaluation, a list of short-listed applicants shall be prepared as specified in Clause 3.3. In the third stage, financial evaluation will be carried out as specified in Clause 3.4. Proposals will finally be ranked according to their combined technical and financial scores as specified in Clause 3.5. The first ranked Applicant (the "Selected Applicant") shall be called for negotiation, if necessary, while the second ranked Applicant will be kept in reserve.

1.7. Payment to Consultants

1.7.1. All payments to the Consultant shall be made in Indian Rupees (Rs.) in accordance with the provisions of this RFP. The Consultant may convert Rs. into any foreign currency as per Applicable Laws and the exchange risk, if any, shall be borne by the Consultant. The fee shall be quoted in Rs. only.

1.8. Schedule of Selection Process

The Authority would endeavor to adhere to the following schedule:

Information and Timelines

1.	Department Name	Roads & Buildings Department, Govt of Telangana.	
2.	Project Implementation Unit	Project Director (RRR)	
3.	Notice Inviting Tender No.	E-in-C(R&B)Admin,NH,LWE,CRIF,RSW,PPP&EAP, e	
		e-NIT No. 01(2 nd call) / 2024-25, Dt: 28 -12-2024	
4.	Name of Work	Request for Proposal (RFP) for Project Consultant for	
		DPR Preparation, PMU and Technical, Financial and	
		Transaction Advisory for the development of Hyderabad	
		Regional Ring Road (Southern Part).	
5.	Financial Proposal	Consultancy Charges to be quoted by the Consultant.	
6.	Period of Completion	30 months	
7.	Selection Method	Quality Cum Cost Based Selection (QCBS)	
8.	Type of Bidding	International Competitive Bidding (ICB)	
9.	RFP Category	Consultancy Services	
10.	Bid Security (EMD)	Rs.25,00,000/- (Rupees Twenty-Five Lakhs only)	
11.	Bid Security Payable to	In the shape of unconditional & irrevocable Bank	
		Guarantee in the standard format to be obtained from any	
		Government owned Public Sector Bank or any scheduled	
		commercial bank in favour of "Managing Director,	
		TGRDC" to be valid for 6 Months from the Proposal	
10	G . CRED D	Due Date (PDD) of submission of RFP	
12.	Cost of RFP Document	Rs.15,000+ GST @ 18% payable to Managing Director,	
		TGRDC and Transaction Fee payable to Service	
1.2	D1 1: C4+ D-+-	provider as per Government Guidelines.	
13.	Downloading Start Date Pre-bid Conference	30.12.2024 from 3:00 PM (IST)	
14. 15.	Last Date & Time for	Already held during 1 st Call	
13.		20.01.2025 till 3:00 PM(IST)	
16.	Downloading Bids Last Data & Time for submission	20 01 2025 4:U 2.20 DM/IST\	
10.	Last Date & Time for submission of Bids	20.01.2025 thi 5:30 FM(151)	
17.	Technical Bid Opening	20.01.2025 @ 4:30 PM(IST)	
1/.	Technical Bid Opening	20.01.2025 (b) 4.50 f M(151)	

18.	Consortium	Allowed (not more than three Members as JV with a
		minimum 35% share for Lead Member and highest
		shareholder shall be Lead Member.
19.	Financial Bid Opening	Will be intimated later.
20.	Currency of payment	All payments to be made by the Bidder will be in INR only
21.	Officer Inviting Bids	Engineer-in-Chief, R & B, Telangana.
22.	Address / E-mail ID	Room No. 601, 6 th Floor,
		R & B Building,
		Errum Manzil, Hyderabad
		Telangana 500082
23.	Contact Details/ Telephone/Email	Engineer-in-Chief (R & B), Telangana.
		Mobile No. 9000548789
		Email: <u>pd-rrr-rnb@telangana.gov.in</u> and
		cenhts@gmail.com

1.9. Pre-Bid visit - Deleted

1.10. Pre-Bid Conference- Already held during 1st Call

1.11. Communications

1.11.1. Communications if any on proposals shall be made as per section 1.8.

2. INSTRUCTIONS TO APPLICANTS

A. GENERAL

2.1. Scope of Proposal

- 2.1.1. Detailed description of the objectives, scope of services, Deliverables and other requirements relating to this Consultancy are specified in this RFP. In case an applicant firm possesses the requisite experience and capabilities required for undertaking the Consultancy, it may participate in the Selection Process either individually (the "Sole Firm") or as lead member of a consortium of firms (the "Lead Member") in response to this invitation. The term applicant (the "Applicant") means the Sole Firm or the Lead Member, as the case may be. The manner in which the Proposal is required to be submitted, evaluated and accepted is explained in this RFP.
- 2.1.2. Applicants are advised that the selection of Consultant shall be on the basis of an evaluation by the Authority through the Selection Process specified in this RFP. Applicants shall be deemed to have understood and agreed that no explanation or justification for any aspect of the Selection Process will be given and that the Authority's decisions are without any right of appeal whatsoever.
- 2.1.3. The Applicant shall submit its Proposal in the form and manner specified in this Section of the RFP. The Technical proposal shall be submitted in the form at Appendix-I and the Financial Proposal shall be submitted in the form at Appendix-II.

2.1.4. Key Personnel

The Consultant's team (the "Consultancy Team") shall consist of the personnel as mentioned in the Terms of Reference (ToR) (the "Key Personnel") who shall discharge their respective responsibilities in accordance with the Terms of Reference:

2.2. Conditions of Eligibility of Applicants

2.2.1. Applicants must read carefully the minimum conditions of eligibility (the "Conditions of Eligibility") provided herein. Proposals of only those Applicants who satisfy the Conditions of Eligibility will be considered for evaluation. The Conditions of Eligibility as specified in the RFP may be relaxed for a particular Applicant, if applicable, subject to furnishing of relevant and valid documents or certificates, supporting such relaxations or exemptions under Applicable Laws.

The Applicant must also fulfill following conditions:

a) The Applicant should be a Company registered under Companies Act, 1956/2013 or a partnership firm registered under Limited Liability Partnership Act, 2008.

Or

The Applicant should be a partnership registered under the Indian Partnership Act 1932 or Limited Liability Partnership Firm registered under the Limited Liability Partnership Act 2008 with their registered office in India.

- b) The Applicant should be registered with the Service Tax Authorities (GST)
- c) The Applicant should not have been be Debarred for the last 3 years by any Centre or State Government Department/ Agency.

2.2.2. To be eligible for evaluation of its Proposal, the Applicant shall fulfil the following Minimum Eligibility Criteria.

Minimum Eligibility Criteria

Sl. No.	Minimum experience and performance during last 15 years	
(i)	Category A1: Project management consultancy for development of	
	Greenfield Highway/ Expressway/ Linear Transport Infrastructure	
	works: Should have successfully completed at least (1) one project related to	
	Project Management Consultancy (PMC)/ General Consultants/Project	
	Monitoring Unit (PMU)/ Project Support Office (PSO) services for Central/	
	State Government client in India/International for development of Highway/	
	Expressway/ Linear Transport Infrastructure works with a minimum cost	
	of the Single Highway/ Expressway/ Linear Transport Infrastructure works	
	project of Rs. 10,000 Cr. (Rupees Ten Thousand Crore)	
(ii)	Category A2: Financial structuring and fund raising for Roads and Highway	
	project: Should have completed at least 1 (one) project, for Central/ State	
	Government client in India, involving fund raising for Highway/ Expressway	
	project, from commercial banks, financial institutions, bond markets, etc. of	
	amount not less than Rs. 5,000 Cr. (Rupees Five Thousand Crore) for the single	
(***)	Highway/ Expressway project.	
(iii)	Category A3: Annual average turnover: Annual average turnover for last 3	
	years from consultancy and professional fees of the Bidder (Firm in	
	case of Sole Bidder/Lead Member in case of JV)should be equal or more	
	thanRs.5,000 Cr. (Rupees Five Thousand Crore)	

Eligible Projects for Project Management Consultancy (PMC)/ Project Monitoring Unit (PMU)/ Project Support Office (PSO)

- a) Project Management Consultancy (PMC)/ General Consultant/Project Monitoring Unit (PMU)/ Project Support Office (PSO) projects shall be considered for projects having all of the following tasks:
 - i. Procurement support for appointment of vendors, contractors, consultants, etc.
 - ii. Assistance in technical, contractual and commercial aspects of the project
 - iii. Project progress monitoring, presentation of progress dashboard
 - iv. Mapping of physical and financial progress of the project (budgeted vs actual)
 - v. Preparation of periodic progress reports
 - vi. Preparation of disbursement schedule
- b) Projects with scope of only construction supervision/ independent engineer or only procurement support or only independent design proof consultancy shall not qualify as eligible projects
- c) Projects undertaken with private sector clients shall not qualify as eligible projects
- d) This definition of Project Management Consultancy (PMC)/ General Consultant/ Project Monitoring Unit (PMU)/ Project Support Office (PSO) projects shall be applicable for both Minimum Eligibility Criteria and Evaluation of Technical Proposal
- e) For criteria A1 and A2, only completed projects shall be considered and completion certificate issued by the authority/ client must be furnished.

- f) For criterion A3, certificate by the statutory auditor, chartered accountant must be furnished.
- g) In case of consortium, for the purpose of fulfilling the Minimum Eligibility Criteria A1 to A3 as mentioned in Table 2 above, Lead Member of the consortium must meet at least 2 criteria. Criterion A2 needs to be met by the Lead Member of the consortium.

2.3. Conflict of Interest

- 2.3.1. Applicant shall not have a conflict of interest that may affect the Selection Process or the Consultancy (the "Conflict of Interest"). Any Applicant found to have a Conflict of Interest shall be disqualified. In the event of disqualification, the Authority shall forfeit and appropriate the Performance Security, if available, as mutually agreed genuine pre-estimated compensation and damages payable to the Authority for, *inter alia*, the time, cost and effort of the Authority including consideration of such Applicant's Proposal, without prejudice to any other right or remedy that may be available to the Authority hereunder or otherwise.
- 2.3.2. The Authority requires that the Consultant provides professional, objective, and impartial advice and at all times hold the Authority's interests paramount, avoid conflicts with other assignments or its own interests, and act without any consideration for future work. The Consultant shall not accept or engage in any assignment that would be in conflict with its prior or current obligations to other clients, or that may place it in a position of not being able to carry out the assignment in the best interests of the Authority.
- 2.3.3. Some guiding principles for identifying and addressing Conflicts of Interest have been illustrated in the Guidance Note at Schedule-2. Without limiting the generality of the above, an Applicant shall be deemed to have a Conflict of Interest affecting the Selection Process, if:
 - The Applicant, or Associates (or any constituent thereof) or Associate (or any (a) constituent thereof) have common controlling shareholders or other ownership interest; provided that this disqualification shall not apply in cases where the direct or indirect shareholding or ownership interest of an Applicant, or its Associate (or any shareholder thereof having a shareholding of more than 5 per cent of the paid up and subscribed share capital of such Applicant, or Associate, as the case may be) in the other Applicant, or Associate is less than 5% (five per cent) of the subscribed and paid up equity share capital thereof. For the purposes of this Clause 2.3.3(a), indirect shareholding held through one or more intermediate persons shall be computed as follows: (aa) where any intermediary is controlled by a person through management control or otherwise, the entire shareholding held by such controlled intermediary in any other person (the "Subject Person") shall be taken into account for computing the shareholding of such controlling person in the Subject Person; and (bb) subject always to Sub-clause (aa) above, where a person does not exercise control over an intermediary, which has shareholding in the Subject Person, the computation of indirect shareholding of such person in the Subject Person shall be undertaken on a proportionate basis; provided, however, that no such shareholding shall be reckoned under this Sub-clause (bb) if the shareholding of such person in the intermediary is less than 26% (twenty six per cent) of the subscribed and paid up equity shareholding of such intermediary; or
 - (b) A constituent of such Applicant is also a constituent of another Applicant; or
 - (c) Such Applicant or its Associate receives or has received any direct or indirect subsidy or grant from any other Applicant or its Associate; or
 - (d) Such Applicant has the same legal representative for purposes of this Application as

any other Applicant; or

- (e) Such Applicant has a relationship with another Applicant, directly or through common third parties, that puts them in a position to have access to each others' information about, or to influence the Application of either or each of the other Applicant; or
- (f) There is a conflict among this and other consulting assignments of the Applicant (including its personnel and other members, if any) and any subsidiaries or entities controlled by such Applicant or having common controlling shareholders. The duties of the Consultant will depend on the circumstances of each case. While providing consultancy services to the Authority for this particular assignment, the Consultant shall not take up any assignment that by its nature will result in conflict with the present assignment; or
- (g) A firm which has been engaged by the Authority to provide goods or works or services for a project, and its Associates, will be disqualified from providing consulting services for the same project save and except as provided in Clause 2.3.4; conversely, a firm hired to provide consulting services for the preparation or implementation of a project, and its Members or Associates, will be disqualified from subsequently providing goods or works or services related to the same project; or
- (h) The Applicant, or Associate (or any constituent thereof), and the bidder or Concessionaire, if any, for the Project, its contractor(s) or sub-contractor(s) (or any constituent thereof) have common controlling shareholders or other ownership interest; provided that this disqualification shall not apply in cases where the direct or indirect shareholding or ownership interest of an Applicant, or Associate (or any shareholder thereof having a shareholding of more than 5% (five per cent) of the paid up and subscribed share capital of such Applicant, or Associate, as the case may be,) in the bidder or Concessionaire, if any, or its contractor(s) or subcontractor(s) is less than 5% (five per cent) of the paid up and subscribed share capital of such Concessionaire or its contractor(s) or sub-contractor(s); provided further that this disqualification shall not apply to ownership by a bank, insurance company, pension fund or a Public Financial Institution referred to in section 4A of the Companies Act 1956. For the purposes of this Sub-clause (h), indirect shareholding shall be computed in accordance with the provisions of Sub-clause (a) above.

For purposes of this RFP, Associate means, in relation to the Applicant, a person who controls, is controlled by, or is under the common control with such Applicant, or is deemed or published as an "Associate Office"; or has a formal arrangement such as tie up for client referral or technology sharing, joint venture with the Applicant (the "Associate"); provided, however, that if the Applicant has any formal arrangement such as membership in other advisers/ consultants for a particular assignment/ project, not being this project, with any other person, then such other person shall not be treated to be an Associate of the Applicant. As used in this definition, the expression "control" means, with respect to a person which is a company or corporation, the ownership, directly or indirectly, of more than 50% (fifty per cent) of the voting shares of such person, and with respect to a person which is not a company or corporation, the power to direct the management and policies of such person by operation of law or by contract.

2.3.4. An Applicant eventually appointed to provide Consultancy for this Project, its Associates, affiliates shall be disqualified from subsequently providing goods or works or services related to the construction and operation of the same Project and any breach of this obligation shall be construed as Conflict of Interest; provided that the restriction herein shall not apply after a period

of 3 (three) years from the completion of this assignment or to any consulting assignments granted by banks/ lenders at any time; provided further that this restriction shall not apply to consultancy/ advisory services performed for the Authority in continuation of this Consultancy or to any subsequent consultancy/ advisory services performed for the Authority in accordance with the rules of the Authority. For the avoidance of doubt, an entity affiliated with the Consultant shall include a partner in the Consultant's firm or a person who holds more than 5% (five per cent) of the subscribed and paid up share capital of the Consultant, as the case may be, and any Associate thereof.

2.3.5. In the event that the Consultant, its Associates or affiliates are auditors or financial advisers to any of the bidders for the Project, they shall make a disclosure to the Authority as soon as any potential conflict comes to their notice but in no case later than 7 (seven) days from the opening of the RFP bids for the Project and any breach of this obligation of disclosure shall be construed as Conflict of Interest. The Authority shall, upon being notified by the Consultant under this Clause 2.3.5, decide whether it wishes to terminate this Consultancy or otherwise, and convey its decision to the Consultant within a period not exceeding 15 (fifteen) days.

2.4. Number of Proposals

No Applicant or its Associate shall submit more than one Application for the Consultancy. An Applicant applying individually or as an Associate shall not be entitled to submit another application either individually.

2.5. Cost of Proposal

The Applicants shall be responsible for all of the costs associated with the preparation of their Proposals and their participation in the Selection Process including subsequent negotiation, visits to the Authority, Project site etc. The Authority will not be responsible or in any way liable for such costs, regardless of the conduct or outcome of the Selection Process.

2.6. Visit to the Authority and verification of information- DELETED

2.7. Acknowledgement by Applicant

- 2.7.1. It shall be deemed that by submitting the Proposal, the Applicant has:
 - (a) Made a complete and careful examination of the RFP;
 - (b) DELETED
 - (c) Accepted the risk of inadequacy, error or mistake in the information provided in the RFP or furnished by or on behalf of the Authority or relating to any of the matters referred to in Clause 2.6 above;
 - (d) Satisfied itself about all matters, things and information, including matters referred to in Clause 2.6 herein above, necessary and required for submitting an informed Application and performance of all of its obligations there under;
 - (e) Acknowledged that it does not have a Conflict of Interest; and
 - (f) Agreed to be bound by the undertaking provided by it under and in terms hereof.
- 2.7.2. The Authority shall not be liable for any omission, mistake or error in respect of any of the above or on account of any matter or thing arising out of or concerning or relating to RFP or the

Selection Process, including any error or mistake therein or in any information or data given by the Authority.

2.8. Right to reject any or all Proposals

- 2.8.1. Notwithstanding anything contained in this RFP, the Authority reserves the right to accept or reject any Proposal and to annul the Selection Process and reject all Proposals, at any time without any liability or any obligation for such acceptance, rejection or annulment, and without assigning any reasons therefore.
- 2.8.2. Without prejudice to the generality of Clause 2.8.1, the Authority reserves the right to reject any Proposal if:
 - (a) At any time, a material misrepresentation is made or discovered, or
 - (b) The Applicant does not provide, within the time specified by the Authority, the supplemental information sought by the Authority for evaluation of the Proposal.

Misrepresentation/ improper response by the Applicant may lead to the disqualification of the Applicant. If such disqualification / rejection occurs after the Proposals have been opened and the highest ranking Applicant gets disqualified / rejected, then the Authority reserves the right to consider the next highest Applicant, or take any other measure as may be deemed fit in the sole discretion of the Authority, including annulment of the Selection Process.

B. DOCUMENTS

2.9. Contents of the RFP

2.9.1. This RFP comprises the Disclaimer set forth herein above, the contents as listed below and will additionally include any Addendum / Amendment issued in accordance with Clause 2.11:

Request for Proposal

- 1. Introduction
- 2. Instructions to Applicants
- 3. Criteria for Evaluation
- 4. Fraud and corrupt practices
- 5. Pre-bid Conference
- 6. Miscellaneous

Schedules

- 1 Terms of Reference
- 2 Guidance Note on Conflict of Interest
- 3 Appendices

Appendix - I: Technical Proposal

Form 1 : Letter of Proposal

Form 2 : Particulars of the Applicant Form 3 : Statement of Legal Capacity

Form 4 : Power of Attorney

Form 5 : Financial Capacity of the Applicant

Form 6 : Particulars of Key Personnel

Form 7 : Abstract of Eligible Assignments of the Applicant

Form 8 : Deleted

Form 9 : Eligible Assignments of Applicant

Form 10 : CVs of Professional Personnel

Appendix - II: Financial Proposal

Form 1 : Covering Letter Form 2 : Financial Proposal

2.10. Clarifications

2.10.1. Applicants requiring any clarification on the RFP may send their queries to the Authority in writing before the date mentioned in the Schedule of Selection Process at Clause 1.8, to the Authority through offline/e-mail mentioned therein. The envelopes shall clearly bear the following identification in case of offline submission:

"Queries/Request for Additional Information concerning RFP for Project Consultant for DPR Preparation, PMU and Technical, Financial and Transaction Advisory for the development of Hyderabad Regional Ring Road (Southern Part)"

The Authority shall endeavour to respond to the queries within the period specified therein but no later than 7 (seven) days prior to the PDD. The Authority will post the reply to all such queries on the e procurement platform https://tender.telangana.gov.in.

2.10.2. The Authority reserves the right not to respond to any queries or provide any clarifications, in its sole discretion, and nothing in this Clause 2.10 shall be construed as obliging the Authority to respond to any question or to provide any clarification.

2.11. Amendment of RFP

- 2.11.1. At any time prior to the deadline for submission of Proposal, the Authority may, for any reason, whether at its own initiative or in response to clarifications requested by an Applicant, modify the RFP document by the issuance of Addendum/ Amendment and posting it on the 'e' procurement platform https://tender.telangana.gov.in.
- 2.11.2. The amendments will also be posted on the 'e' procurement platform https://tender.telangana.gov.in along with the revised RFP containing the amendments if any.
- 2.11.3. In order to afford the Applicants a reasonable time for taking an amendment into account, or for any other reason, the Authority may, in its sole discretion, extend the PDD^{\$}

While extending the Proposal Due Date on account of an addendum, the Authority shall have due regard for the time required by bidders to address the amendments specified therein. In the case of significant amendments, at least 15 (fifteen) days shall be provided between the date of amendment and the Proposal Due Date, and in the case of minor amendments, at least 7(seven) days shall be provided.

C. PREPARATION AND SUBMISSION OF PROPOSAL

2.12. Language

The Proposal with all accompanying documents (the "**Documents**") and all communications in relation to or concerning the Selection Process shall be in English language and strictly on the forms provided in this RFP. No supporting document or printed literature shall be submitted with the Proposal unless specifically asked for and in case any of these Documents is in another language, it must be accompanied by an accurate translation of all the relevant passages in English, in which case, for all purposes of interpretation of the Proposal, the translation in English shall prevail.

2.13. Format and signing of Proposal

- 2.13.1. The Applicant shall provide all the information sought under this RFP. The Authority would evaluate only those Proposals that are received in the specified forms and complete in all respects.
- 2.13.2. The Applicant shall submit the Proposal both Technical and Financial proposals along with EMD and PoA in original online.
- 2.13.3. The Proposal, and its copy, shall be typed or written in indelible ink and signed by the authorised signatory of the Applicant who shall initial each page, in blue ink. The Proposals must be properly signed by the authorised representative (the "Authorised Representative") as detailed below:
 - (a) By the proprietor, in case of a proprietary firm; or
 - (b) By a partner, in case of a partnership firm and/or a limited liability partnership; or
 - (c) By a duly authorised person holding the Power of Attorney, in case of a Limited Company or a corporation; or
 - (d) A copy of the Power of Attorney certified by a notary public in the form specified in Appendix-I (Form-4) shall accompany the Proposal (if required).
- 2.13.4. Applicants should note the PDD, as specified in Clause 1.8, for submission of Proposals.

Except as specifically provided in this RFP, no supplementary material will be entertained by the Authority, and evaluation will be carried out only on the basis of Documents received online by the closing time of PDD as specified in Clause 2.17.1.

2.14. Technical Proposal

- 2.14.1. Applicants shall submit the technical proposal in the formats at Appendix-I (the "Technical Proposal").
- 2.14.2. While submitting the Technical Proposal, the Applicant shall, in particular, ensure that:
 - (a) All forms are submitted in the prescribed formats and signed by the prescribed signatories;
 - (b) Power of attorney, if applicable, is executed as per Applicable Laws;
 - (c) CVs of all Key Personnel have been included;
 - (d) Key Personnel have been proposed in alignment with the Terms of Reference.

- (e) Deleted;
- (f) CVs shall be signed and dated, in blue ink by the respective Personnel and countersigned by the Applicant. Photocopy or unsigned / countersigned CVs shall be rejected;
- (g) Deleted;
- (h) Key Personnel proposed have good working knowledge of English language;
- (i) Key Personnel would be available for the period indicated in the Terms of Reference;
- (j) No Key Personnel should have attained the age of 75 years at the time of submitting the proposal; and
- (k) The proposal is responsive in terms of Clause 2.21.3.
- 2.14.3. Failure to comply with the requirements spelt out in this Clause 2.14 shall make the Proposal liable to be rejected.
- 2.14.4. If an individual Key Personnel makes a false averment regarding his qualification, experience or other particulars, he shall be liable to be debarred for any future assignment of the Authority for a period of 3 (three) years. The award of this Consultancy to the Applicant may also be liable to cancellation in such an event.
- 2.14.5. The Technical Proposal shall not include any financial information relating to the Financial Proposal.
- 2.14.6. The proposed team shall include experts and specialists (the "Professional Personnel") in their respective areas of expertise and managerial/support staff (the "Support Personnel") such that the Consultant should be able to complete the Consultancy within the specified time schedule. The Key Personnel specified in Clause 2.1.4 shall be included in the proposed team of Professional Personnel. The team shall comprise other competent and experienced professional personnel in the relevant areas of expertise (where applicable) as required for successful completion of this Consultancy. The CV of each such professional personnel, if any, should also be submitted in the format at Form-10 of Appendix-I.

2.14.7. **DELETED**

- 2.14.8. The Authority reserves the right to verify all statements, information and documents, submitted by the Applicant in response to the RFP. Any such verification or the lack of such verification by the Authority to undertake such verification shall not relieve the Applicant of its obligations or liabilities hereunder nor will it affect any rights of the Authority there under.
- 2.14.9. In case it is found during the evaluation or at any time before signing of the Agreement or after its execution and during the period of subsistence thereof, that one or more of the eligibility conditions have not been met by the Applicant or the Applicant has made material misrepresentation or has given any materially incorrect or false information, the Applicant shall be disqualified forthwith if not yet appointed as the Consultant either by issue of the LOA or entering into of the Agreement, and if the Selected Applicant has already been issued the LOA or has entered into the Agreement, as the case may be, the same shall, notwithstanding anything to the contrary contained therein or in this RFP, be liable to be terminated, by a communication in writing by the Authority without the Authority being liable in any manner whatsoever to the Selected Applicant or Consultant, as the case may be.

In such an event, the Authority shall forfeit and appropriate the Performance Security, if available, as mutually agreed pre-estimated compensation and damages payable to the

Authority for, *inter alia*, time, cost and effort of the Authority, without prejudice to any other right or remedy that may be available to the Authority.

2.15. Financial Proposal

- 2.15.1. Applicants shall submit the financial proposal in the formats at Appendix-II (the "Financial Proposal") clearly indicating the total cost of the Consultancy in both figures and words, in Indian Rupees, and signed by the Applicant's Authorised Representative. In the event of any difference between figures and words, the amount indicated in words shall prevail. In the event of a difference between the arithmetic total and the total shown in the Financial Proposal, the lower of the two shall prevail.
- 2.15.2. While submitting the Financial Proposal, the Applicant shall ensure the following:
 - (i) All the costs associated with the assignment shall be included in the Financial Proposal. These shall normally cover remuneration for all the Personnel (Expatriate and Resident, in the field, office etc), accommodation, air fare, equipment, printing of documents, etc. The total amount indicated in the Financial Proposal shall be without any condition attached or subject to any assumption, and shall be final and binding. In case any assumption or condition is indicated in the Financial Proposal, it shall be considered non-responsive and liable to be rejected.
 - (ii) The Financial Proposal shall take into account all expenses and tax liabilities. For the avoidance of doubt, it is clarified that all taxes shall be deemed to be included in the costs shown under different items of the Financial Proposal. Further, all payments shall be subject to deduction of taxes at source as per Applicable Laws.
 - (iii) Costs (including break down of costs) shall be expressed in Indian Rupees (Rs.)

2.16. Submission of Proposal

A three stage bid procedure/evaluation will be followed for this RFP with QCBS system selection criteria. The following proposals to be submitted by bidders are:

- a. Proof of eligibility
- b. Technical Proposals and
- c. Financial Proposals

The Bidder has to submit the bid online only as per the formats provided in this RFP. The bids are to be submitted on or before the last date of proposal submission. Bids received in any other form will not be accepted and may lead to rejection of the bid.

Details of the process for submission is provided in this RFP

The Bidder should take into account any Corrigendum to this RFP document that may have been published before submitting their Proposals.

The technical proposal and financial proposal (as mentioned in the previous paragraph) should be submitted on or before PDD in the e-procurement platform https://tender.telangana.gov.in

Please note that prices must not be indicated in the technical bid and must only be indicated in the financial bid. In case any bidder submits prices or any other financial information in technical bid then the bids of such bidders will be summarily rejected by the Authority.

The technical proposal and financial proposal shall comprise all documents in complete shape. All the pages of the bid must be sequentially numbered and must contain the list of contents with page numbers. Bidders are required to submit all details as per the formats given in the RFP document only. Any deficiency in documentation may result in the rejection of the bid at the sole discretion of the Authority.

The Bidders are requested to go through the RFP document carefully to understand the documents required to be submitted and the process to be followed as a part of the Proposal. Any deviations may lead to rejection of the Proposal.

The Bidder should try to submit the proposal well before the last date and hence to avoid any inconvenience at the last moment. The Bidder will not be allowed to submit the Proposal after the Bid submission time.

Each document submitted by the bidder in technical and financial proposals must be duly signed by the authorized signatory as per RFP (Authorized Signatory and Authentication of Bids)

2.17. Proposal Due Date

- 2.17.1. Proposal should be submitted online before 15:00 Hrs on the PDD specified at Clause 1.8 in the manner and form as detailed in this RFP.
- 2.17.2. The Authority may, in its sole discretion, extend the PDD by issuing an Addendum in accordance with Clause 2.11 uniformly for all Applicants.

2.18. Late Proposals- DELETED

Proposals received by the Authority after the specified time on PDD shall not be eligible for consideration and shall be summarily rejected.\

2.19. Modification/ substitution/ withdrawal of Proposals- DELETED

2.20. Security

The Applicant, by submitting its Application pursuant to this RFP, shall be deemed to have acknowledged that without prejudice to the Authority's any other right or remedy hereunder or in law or otherwise, the Performance Security, available as per Clause 2.27 a shall be forfeited by the Authority as the mutually agreed pre-estimated compensation and damage payable to the Authority for, *inter alia*, the time, cost and effort of the Authority in regard to the RFP including the consideration and evaluation of the Proposal under the following conditions:

- (a) If an Applicant engages in any of the Prohibited Practices specified in Clause 4.1 of this RFP;
- (b) If the Applicant is found to have a Conflict of Interest as specified in Clause 2.3; and
- (c) If the selected Applicant commits a breach of the Agreement.

D. EVALUATION PROCESS

2.21. Evaluation of Proposals

2.21.1. The Authority shall open the Technical bid proposals at 16:30 hours on the PDD, online in the 'e' procurement platform https://tender.telangana.gov.in as specified in the Clause 1.8. The

"Financial Proposal" shall be kept unopened for opening at a later date as specified in Clause 1.8.

2.21.2. DELETED.

- 2.21.3. Prior to evaluation of Proposals, the Authority will determine whether each Proposal is responsive to the requirements of the RFP. A Proposal shall be considered responsive only if:
 - (a) The Technical Proposal is received in the form specified at Appendix-I;
 - (b) It is received by the PDD including any extension thereof pursuant to Clause 2.17;
 - (c) Deleted
 - (d) It is accompanied by the Power of Attorney as specified in Clause 2.2.4;
 - (e) It contains all the information (complete in all respects) as requested in the RFP;
 - (f) It does not contain any condition or qualification; and
 - (g) It is not non-responsive in terms hereof.
- 2.21.4. The Authority reserves the right to reject any Proposal which is non-responsive and no request for alteration, modification, substitution or withdrawal shall be entertained by the Authority in respect of such Proposals.
- 2.21.5. The Authority shall subsequently examine and evaluate Proposals in accordance with the Selection Process specified at Clause 1.6 and the criteria set out in Section 3 of this RFP.
- 2.21.6. After the technical evaluation, the Authority shall prepare a list of qualified Applicants in terms of Clause 3.2 for opening of their Financial Proposals. The Authority will not entertain any query or clarification from Applicants who fail to qualify at any stage of the Selection Process. The financial evaluation and final ranking of the Proposals shall be carried out in terms of Clauses 3.3 and 3.4.
- 2.21.7. Applicants are advised that Selection shall be entirely at the discretion of the Authority.
 - Applicants shall be deemed to have understood and agreed that the Authority shall not be required to provide any explanation or justification in respect of any aspect of the Selection Process or Selection.
- 2.21.8. Any information contained in the Proposal shall not in any way be construed as binding on the Authority, its agents, successors or assigns, but shall be binding against the Applicant if the Consultancy is subsequently awarded to it.

2.22. Confidentiality

Information relating to the examination, clarification, evaluation, and recommendation for the selection of Applicants shall not be disclosed to any person who is not officially concerned with the process or is not a retained professional adviser advising the Authority in relation to matters arising out of, or concerning the Selection Process. The Authority shall treat all information, submitted as part of the Proposal, in confidence and shall require all those who have access to such material to treat the same in confidence. The Authority may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or to enforce or assert any right or privilege of the statutory entity and/or the Authority or as may be required by law or in connection with any legal process.

2.23. Clarifications

- 2.23.1. To facilitate evaluation of Proposals, the Authority may, at its sole discretion, seek clarifications from any Applicant regarding its Proposal. Such clarification(s) shall be provided within the time specified by the Authority for this purpose. Any request for clarification(s) and all clarification(s) in response thereto shall be in writing.
- 2.23.2. If an Applicant does not provide clarifications sought under Clause 2.23.1 above within the specified time, its Proposal shall be liable to be rejected. In case the Proposal is not rejected, the Authority may proceed to evaluate the Proposal by construing the particulars requiring clarification to the best of its understanding, and the Applicant shall be barred from subsequently questioning such interpretation of the Authority.

E. APPOINTMENT OF CONSULTANT

2.24. Negotiations

2.24.1. The Selected Applicant may, if necessary, be invited for negotiations. The negotiations shall generally not be for reducing the price of the Proposal, but will be for re-confirming the obligations of the Consultant under this RFP. Issues such as deployment of Key Personnel, understanding of the RFP, methodology and quality of the work plan shall be discussed during negotiations.

The negotiation may also include explanations on break up of consultancy fees quoted by the Applicant for every module as provided TOR and in the Financial Proposal. Applicants are advised to quote fees for respective modules including preparation of DPR as per estimated effort. In case there is inconsistency in fee quoted for respective modules and for preparation of DPRs, the Authority may reject the Applicant at its own discretion.

In case the Selected Applicant fails to reconfirm its commitment, the Authority reserves the right to designate the next ranked Applicant as the Selected Applicant and invite it for negotiations.

- 2.24.2. The Authority will examine the CVs of all other Professional Personnel and those not found suitable shall be replaced by the Applicant to the satisfaction of the Authority.
- 2.24.3. The Authority will examine the credentials of the Applicant for this Consultancy and those not found suitable shall be replaced by the Selected Applicant to the satisfaction of the Authority.

2.25. Substitution of Key Personnel

- 2.25.1. The Authority will not normally consider any request of the Selected Applicant for substitution of the Experts as the ranking of the Applicant is based on the evaluation of the Expert and any change therein may upset the ranking. Substitution will, however, be permitted in exceptional circumstances if ANY Expert is not available for reasons of any incapacity or due to health or due to leaving the job, subject to qualified and experienced personnel as per the requirement of the RFP being provided to the satisfaction of the Authority.
- 2.25.2. The Authority expects the Key Personnel to be available during implementation of the Agreement. The Authority will not consider substitution of the Key Personnel except for reasons of any incapacity or due to health. Such substitution shall ordinarily be limited to one Key Personnel subject to equally or better qualified and experienced personnel being provided to the satisfaction of the Authority.

2.26. Indemnity

The Consultant shall, subject to the provisions of the Agreement, indemnify the Authority, for an amount not exceeding the value of the Agreement, for any direct loss or damage that is caused due to any deficiency in Services.

2.27. Award of Consultancy

After selection, a Letter of Award (the "LOA") shall be issued, in duplicate, by the Authority to the Selected Applicant and the Selected Applicant shall, within 7 (seven) days of the receipt of the LOA, sign and return the duplicate copy of the LOA in acknowledgement thereof. In the event the duplicate copy of the LOA duly signed by the Selected Applicant is not received by the stipulated date, the Authority may, unless it consents to extension of time for submission thereof, cancel the LOA and the next highest ranking Applicant may be considered.

2.27 a. Performance Security:

The successful bidder shall furnish, within 15 days of the issue of Letter of Acceptance (LOA), an unconditional Bank Guarantee (BG) from a Nationalized Bank or Scheduled Bank having a net worth of not less than 500 crore as per latest Annual Report of the Bank. The BG shall be furnished for an amount equivalent to 10 % of the total contract value to be received by the consultant towards Performance Security, valid until expiry of 180 (one hundred and eighty) days from the date of completion of the Services, as determined by the Authority as per terms hereof. The Bank Guarantee will be released by the Authority upon expiry of 3 years beyond the date of completion of services provided rectification of errors if any, found during implementation of the contract, and satisfactory report by the Authority in this regard is issued. If a Consultant fails to submit the Performance Security (as specified above), it shall attract penalty, i.e. encashment of Bid Security submitted by the Consultant.

b. Penalty:

The Consultant will indemnify the Authority for any direct loss or damage that accrue due to deficiency in carrying out services mentioned in the Detailed Project Report. Penalty shall be imposed on the consultants for poor performance/deficiency in services as expected from the consultant and as stated in General Conditions of Contract of the contract entered into.

2.28. Execution of Agreement

2.28.1. Award of Contract

The Client shall issue letter of award to selected Consultant and ask the Consultant to provide Performance Security as in above. If the selected Consultant fails to provide performance security within the prescribed time or the Consultant fails to sign the Contract Agreement within prescribed time, the Client may invite the 2^{nd} highest ranking bidder Consultant and follow the procedure of this Letter of Invitation.

2.29. Commencement of Assignment

After successful Negotiations with the selected Consultant, the Authority shall issue the Letter of Award and ask the Consultant to provide Performance Security as in Para 2.27 above. If negotiations (as per para 2.24 above) fails or the selected Consultant fail to provide performance security within the prescribed time or the Consultant fail to sign the Contract Agreement within prescribed time the Authority may cancel the bid process and re-invite the bid.

2.30. Project Augmentation

The Authority may extend the scope of services defined under this contract and call for augmentation of the overall existing team structure and experts based on the need of newly added projects.

The scope of work and the terms & conditions of such augmentation shall be, primarily and in principle, governed by this RFP.

The Authority, in its sole capacity, shall derive and propose final terms and condition of such deviation from the overall understanding of the techno-commercial proposal submitted by the selected Bidder.

The Bidder may choose to accept or reject such deviation. However, any such acceptance or rejection must be informed to the Authority within 15 days from the receipt of such notice in writing.

2.31. Signing of Contract Agreement

After having received the Performance Security and verifying it, the Authority shall invite the selected bidder/Consultant for signing of the Contract Agreement on a date and time convenient to both parties within 15 days of receipt of valid Performance Security.

2.32. The Authority shall keep the bidders informed during the entire bidding process and shall host the following information on its website:

- i) Notice Inviting Tender (NIT);
- ii) Request For Proposal (RFP);
- iii) Replies to pre-bid queries, if any;
- iv) Amendments/corrigendum to RFP;
- v) List of bidders who submitted the bids up to the deadline of submission;
- vi) List of bidders who did not pass the eligibility requirements, stating the broad deficiencies;
- vii) List of bidders who did not pass the Technical Evaluation stating the reasons;
- viii) List of bidders along with the technical score, who qualified for opening the financial bid:
- ix) Final Score of qualified bidders;
- x) Name of the bidders who are awarded the Contract;

2.33. Expiry of the Contract

The Agreement with selected consultant shall remain valid for a period of 30 months from the signing unless terminated by Authority.

2.34. Liability of the consultant

The liability of the consultant under this agreement shall be limited to the value of the agreement for any direct loss to the Authority due to negligence or carelessness of the Consultant.

3. CRITERIA FOR EVALUATION

3.1. Proof of Eligibility

In the Proof of Eligibility stage, it shall be examined as to whether:

- I. The Proposal is accompanied by the requisite Document fee
- II. The Proposal is accompanied by the Bid Security of required value and of validity equal or more than the minimum required validity
- III. The documents are properly signed by the authorized signatories and whether the Proposal contains the proper Power of Authority
- IV. Joint Venture Agreement in case of Consortium, Memorandum of Understanding.
- V. The Proposals have been received on or before the deadline of submission.

In case answers to any of the above items is 'No' the bid shall be declared as non-responsive and shall not be evaluated further.

A bidder satisfying above mentioned requirement shall be declared "Pass" in Proof of Eligibility and the Technical Proposals of only those bidders shall be opened and evaluated further.

3.2. Evaluation of Technical Proposals

3.2.1. The Technical Proposal shall be evaluated as per the detailed evaluation criteria given in 2.2 A) Minimum Eligibility Criteria and B) Scoring of Technical Proposal. A proposal meeting Minimum Eligibility Criteria and securing 70 marks during Scoring of Technical Proposal shall be declared pass in the Evaluation of Technical Proposal. The Technical Proposal should score at least 70 points out of 100 to be considered for financial evaluation.

Scoring of Technical Proposal shall be based on following criteria as mentioned in Table 3.2.1 (1):

Sl. No. **Description** Marks Marks **B1:** Firms Relevant Experience in 1 Breakup is as per Table 60 last 15 years 3.2.1 (B) Breakup is as per Table 2 B2: Adequacy of Approach and 30 Methodology and proposed team 3.2.1 (C) **B3:** Average annual turnover 3 10 Breakup is as per from consultancy and professional Table 3.2.1 (D) fees **B4:** Reference letters/ certificates 4 from central/ State/ International government clients **Total** 100

Table 3.2.1 (A)

B1: Firms Relevant Experience in last 15 years

Table 3.2.1 (B)

Bid	der's relevant experience in last 15 years	
Tota	al 60 marks	
(a)	Category B1a: Project management consultancy for development of	
	Greenfield Highway/ Expressway/Linear Transport Infrastructure works:	
	Should have successfully completed atleast one single project related to Project Management Consultancy (PMC)/ General Consultant/Project Monitoring Unit	
	(PMU)/ Project Support Office (PSO) services for Central/ State Government	
	client in India/International for development of Greenfield Highway/	
	Expressway/ Linear Transport Infrastructure works:	
	Expressway/ Emeai Transport infrastructure works.	
	Mark for this category is divided into two parameters:	
	Parameter 1 (maximum marks - 10):	
	For one single project	
	• If the project cost is between Rs. 10,000 Crore and Rs. 15,000 Crore – 3 marks	Maximum 15
		marks
	 If the project cost is between Rs. 15,000 Crore and Rs. 20,000 Crore – 6 marks 	
	• If the project cost is more than Rs. 20,000 Crore – 10 marks	
	Parameter 2 (maximum marks - 5):	
	For the submitted project:	
	• If the consultancy fee is less than Rs. 10 Crore – 1 marks	
	• If the consultancy fee is between Rs. 10 Crore and Rs. 20 Crore (both	
	fees inclusive) – 2 marks	
	 If the consultancy fee is more than Rs. 20 Crore – 5 marks 	
	Evaluation of parameter 1 and 2 shall be applicable for the same project only	
(b)	Category B1b:Financial structuring and fund raising for Roads and	
	Highway projects: For Sole Bidder/Lead member in case of JV,	
	Credentials will be evaluated	
	Should be a reputed firm having experience of at least 15 Financial Years in	
	providing transaction and advisory services like commercial structuring, fund	
	raising, debt restructuring / debt resolution, transaction advisory, valuation and	
	transaction support services. The Bidder needs to provide details of transactions	
	over last 15 years in a separate sheet.	
	 Experience of at least 15 years – 4 marks 	
	Should have handled and executed at least 1 transaction with Central / State	
	Government Authorities / PSUs/ JV of PSUs / Govt. companies with value of	
	debt financing/arrangement of at least Rs. 10,000 Crore under a single	
	engagement, during last 15 financial years.	
	At least one transaction should be for Roads and Highway/ Expressway project in	Maximum 6
	India.	marks
	• Experience of 1 transaction (for Roads and Highway/ Expressway	
	project in India) – 4 marks	
	• Every additional transaction (any project/sector) shall get extra 1 mark	
	each subject to maximum 2 additional transactions - Maximum 2	
	marks	
	Should have handled and executed at least 5 transactions / bid advisory	
	assignments in transport infrastructure / infrastructure finance sector in India with	
	Central / State Government Authorities / PSUs/ JV of PSUs / Govt. companies/,	
	Infrastructure Companies/Assets, with value of each transaction being Rs. 1,000	

	Crore or more, under a single engagement.	
	At least two of the minimum five engagements should be in Roads & Highways	
	sector in India.	
	• Experience of 5 transactions (including 2 transactions in Roads and	
	Highway sector) – 5 marks	
	Every additional transaction shall get extra 1 mark subject to maximum	
	5 additional transactions – Maximum 5 marks	
(c)	Category B1c: International experience of Highway/ Expressway/	
	Transportation Infrastructure worksprojects	
	Should have successfully completed international Highway/ Expressway project related to Project Management Consultancy (PMC)/General Consultant/ Project Monitoring Unit (PMU)/ Project Support Office (PSO)/ Feasibility Study/ Project Structuring and Transaction services:	Maximum 10 marks
	1 completed project – 10 marks	
(d)	Category B1d: Implementation of project monitoring platform-Lead	
	member Credentials will be evaluated	
	Should have experience of developing platform for monitoring & reporting of	
	projects for Central/ State Government client, with consultancy fee of at least	
	Rs. 1 Crore	
	• 3 completed projects – 8 marks	
	• 4 completed projects – 10 marks	
	• 5 or more completed projects - 12 marks	
	Additional marks for experience of working on at least 1 Road/	Maximum 15
	Highway construction monitoring project with more than 250 km of	marks
	road length – 3 marks	marks
	It will be preferred if the Applicant has following certifications:	
	• ISO 20000:2011/ISO 20000:2018 for IT Sorvice Management	
	ISO 20000:2011/ ISO 20000:2018 for IT Service Management ISO 27001:2013 for Information Security Management System	
	 ISO 27001:2013 for Information Security Management System CMMi Level 5 	
	Copy of certificates must be furnished.	Maximum 60
	Total	
		marks

Notes:

- a. Technical and Financial Credentials of Parent/Group Company can be used by the Bidder Company incorporated in India under the Companies Act 1956/2013 at least 15 years ago from the date of issuance of RFP.
- b. Eligible projects shall be considered for evaluation only if substantiated with project completion certificate (mentioning completion date, project scope, project cost and consultancy fee received),

B2: Adequacy of Approach and Methodology

Table 3.2.1 (C)

Sl. No.	Sub criteria:	Marks
(a)	Understanding of the project and project appreciation (2 marks)	
(b)	One case study of similar project (PMC/ PMU/ PSO for Highway/	
	Expressway projects/ Transportation Infrastructure works) in India	
	(2 marks)	
	The case study should focus on following:	
	Nature of the project (Highway/ Expressway/ Transportation	
	Infrastructure works)	
	Coverage of the services (concept to implementation)	
	Fund raising component	
	Identification of key bottlenecks and solutions to overcome bottlenecks	
	Strategies and interventions for corridor development	
(c)	One case study of financial structuring and fund raising for Highway/	Maximum
	Expressway projects in India (3 marks)	30 marks
	The case study should focus on following:	30 marks
	Financial structuring of the entire capex	
	Credit rating of the entity raising fund	
	Preparation of PIM and other documents	
	Fund raising from multiple sources	
(d)	One international case study of development of Highway/ Expressway/	
	Transportation Infrastructure works involving feasibility and/or DPR	
	preparation and/or structuring and transaction (3 marks)	
(e)	Detailed approach and methodology and work plan (3 marks)	
(f)	Adequacy of proposed team – competency of team members in terms of	
	education qualification, professional experience and knowhow to handle	
	similar large scale program management assignments (2 marks)	
(g)	Presentation of A&M and Case Study (15 marks)	

Note: Presentation Schedule will be intimated during the evaluation.

B3: Average annual turnover from consultancy and professional fees

Table 3.2.1 (D)

Sl. No.	Description	Marks
1	Average annual turnover of last 3 years from consultancy and professional fees:	
	 Average annual turnover between Rs. 4,000 Crore and Rs. 6,000 Crore – 3 marks 	Maximum 10 marks
	 Average annual turnover more than 6,000 Crore and up to Rs. 8,000 Crore – 6 marks 	
	 Average annual turnover more than Rs. 8000 Crore – 10 marks 	

B4: Reference letters/ certificates from central/ State/International government clients

The Applicant is required to submit at least 3 reference letters/ certificates from Central/ State/International government clients for transport sector (Roads and Highways, Railways, MRTS, Aviation, Ports and Shipping, Inland Water Transport) related projects indicating satisfactory performance for completion of services.

3.3. Short-listing of Applicants

All the Applicants ranked as aforesaid, shall be pre-qualified for financial evaluation in the third stage. However, if the number of such pre- qualified Applicants is less than 2 (two), the Authority may, in its sole discretion, pre-qualify the Applicant(s) whose Technical Score is less than the score specified in Clauses 3.1.1 and 3.1.2; provided that in such an event, the total number of pre-qualified Applicants shall not exceed 2 (two) and the technical scores shall be considered as per actual for further calculations.

3.4. Evaluation of Financial Proposal

3.4.1. The evaluation committee will determine whether the Financial Proposals are complete (i.e. whether they have included cost of all items of the corresponding proposals); if not, then their cost will be considered as nil, but the consultant shall however be required to carry out such obligations without any compensation. In case, if the Authority feels that the work cannot be carried out within overall cost of financial proposal, the proposal can be rejected. The evaluation shall exclude those taxes, duties, fees, levies and other charges imposed under the applicable law.

The lowest Financial Proposal (FM) shall be given a financial score (SF) of 100 points. Additional Costs shall include items specified as such in Form -2 of Appendix-II.

The financial scores of other proposals will be computed as follows:

$$SF = 100 \times \frac{FM}{F}$$

(SF = Financial Score, FM = Amount of lowest bid, F = Amount of financial proposal)

3.5. Combined and Final Evaluation

Proposals will finally be ranked according to their combined technical (ST) and Financial (SF) scores using the weights indicated below:

$$S = ST \times 0.8 + SF \times 0.2$$

Where,

S = Combined Score, ST = Technical Score out of 100, SF = Financial Score out of 100

The consultant having the maximum combined score (S) shall be declared as the highest ranked bidder (H-1).

4. FRAUD AND CORRUPT PRACTICES

- 4.1. The Applicants and the irrespective officers, employees, agents and advisers shall observe the highest standard of ethics during the Selection Process. Notwithstanding anything to the contrary contained in this RFP, the Authority shall reject a Proposal without being liable in any manner whatsoever to the Applicant, if it determines that the Applicant has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice (collectively the "Prohibited Practices") in the Selection Process. In such an event, the Authority shall, without prejudice to its any other rights or remedies, forfeit and appropriate the Performance Security, if available, as mutually agreed genuine pre-estimated compensation and damages payable to the Authority for, inter alia, time, cost and effort of the Authority, in regard to the RFP, including consideration and evaluation of such Applicant's Proposal.
- **4.2.** Without prejudice to the rights of the Authority under Clause 4.1 herein above and the rights and remedies which the Authority may have under the LOA or the Agreement, if an Applicant or Consultant, as the case may be, is found by the Authority to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Selection Process, or after the issue of the LOA or the execution of the Agreement, such Applicant or Consultant shall not be eligible to participate in any tender or RFP issued by the Authority during a period of 2 (two) years from the date such Applicant or Consultant, as the case may be, is found by the Authority to have directly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as the case may be.
- **4.3.** For the purposes of this Clause, the following terms shall have the meaning herein after respectively assigned to them:
 - "Corrupt practice" means (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of any person connected with the Selection Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of the Authority who is or has been associated in any manner, directly or indirectly, with the Selection Process or the LOA or has dealt with matters concerning the Agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the Authority, shall be deemed to constitute influencing the action of a person connected with the Selection Process; or (ii) save as provided herein, engaging in any manner whatsoever, whether during the Selection Process or after the issue of the LOA or after the execution of the Agreement, as the case may be, any person in respect of any matter relating to the Project or the LOA or the Agreement, who at any time has been or is a legal, financial or technical consultant/advisor of the Authority in relation to any matter concerning the Project;
 - (b) **"Fraudulent practice"** means a misrepresentation or omission of facts or disclosure of incomplete facts, in order to influence the Selection Process;
 - (c) "Coercive practice" means impairing or harming or threatening to impair or harm, directly or indirectly, any person's or property to influence any person's participation or action in the Selection Process;

- (d) "Undesirable practice" means (i) establishing contact with any person connected with or employed or engaged by the Authority with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Selection Process; or (ii) having a Conflict of Interest; and
- (e) "Restrictive practice" means forming a cartel or arriving at any understanding or arrangement among Applicants with the objective of restricting or manipulating a full and fair competition in the Selection Process.

5. MISCELLANEOUS

- **5.1.** The Selection Process shall be governed by, and construed in accordance with, the laws of India and the Courts at Hyderabad shall have exclusive jurisdiction over all disputes arising under, pursuant to and/or in connection with the Selection Process.
- **5.2.** The Authority, in its sole discretion and without incurring any obligation or liability, reserves the right, at anytime, to:
 - (a) Suspend and/or cancel the Selection Process and/or amend and/or supplement the Selection Process or modify the dates or other terms and conditions relating thereto;
 - (b) Consult with any Applicant in order to receive clarification or further information;
 - (c) Retain any information and/or evidence submitted to the Authority by, on behalf of and/or in relation to any Applicant; and/or
 - (d) Independently verify, disqualify, reject and/or accept any and all submissions or other information and/or evidence submitted by or on behalf of any Applicant.
- **5.3.** It shall be deemed that by submitting the Proposal, the Applicant agrees and releases the Authority, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in anyway related to or arising from the exercise of any rights and/or performance of any obligations hereunder, pursuant thereto and/or in connection herewith and waives any and all rights and/or claims it may have in this respect, whether actual or contingent, whether present or future.
- **5.4.** All documents and other information supplied by the Authority or submitted by an Applicant shall remain or become, as the case may be, the property of the Authority. The Authority will not return any submissions made hereunder. Applicants are required to treat all such documents and information as strictly confidential.
- **5.5.** The Authority reserves the right to make inquiries with any of the clients listed by the Applicants in their previous experience record.
- **5.6.** The liability of the consultant under this project shall be limited to value of the contract signed (to the extent of payment made to the consultant) with the consultant for consultancy work for direct loss to the Authority
- **5.7.** The Consultant shall not be liable, in contract or tort, under statute or otherwise, for any amount with respect to loss of profit, data or goodwill, or any other consequential, incidental, indirect, punitive or special damages in connection with claims arising out of this Contract or otherwise relating to the Services, whether or not the likelihood of such loss or damage was contemplated.
 - The Consultant shall also not be liable, in contract or tort, under statute or otherwise, for aggregate damages in excess of the fees actually paid in connection with claims arising out of this Agreement or otherwise relating to the services under the Agreement. However, this limitation shall not apply to losses or damages caused by the Consultant's fraud or to the extent prohibited by applicable law or professional obligations.
- **5.8.** The Contract shall be for a period of minimum of **30 months** which may be extended further with commensurate fee as per mutual agreement in case of any additional scope of work due to variation and increase in length of roads etc.
- **5.9.** Financial quote shall be inclusive of all out of pocket expenses like local taxi, conveyance, food and stay cost.
- **5.10.** Authority may ask for additional resources as per the requirement without any additional fee.

SCHEDULES

SCHEDULE - 1

Terms of Reference (TOR)

1. Project Background

To provide greater connectivity and accessibility to the citizen of the state of Telangana, Government of Telangana has envisaged development of a Regional Ring Road (RRR) circumferenceing the Outer Ring Road (ORR) of Hyderabad city. The Telangana Government envisages to develop a first-of-its-kind economic growth corridor around the Regional Ring Road (RRR) project, strategically designed to transform Hyderabad and its surrounding regions into a global economic powerhouse. The Regional Ring Road (RRR) will be an access-controlled highway with radial distance 30-50 KM from the ORR. As part of the project, the Authority intends to focus on integrated regional growth plan encompassing on the development of the highway, its economic nodes (agri/ manufacturing clusters etc) and other ancillary value-added user services such as wayside amenities, ITMS, utility corridor etc. The Regional Ring Road shall be developed in Southern part etc. the overall length would be around 200 Kms connecting Sangareddy, Narsapur, Tupran and Choutuppal , Amangal and other areas

The Proposed RRR will be developed by the State Government, offering a rare opportunity to stimulate industrialization, urbanization, and regional connectivity. This corridor is envisioned not merely as a road but as a dynamic catalyst for economic growth, designed to attract private investment, foster balanced regional development, and integrate cutting-edge infrastructure to support sustainable, long-term expansion. The State Govt. envisages the RRR to focus on the following aspects (i) transforming the Hyderabad region into a competitive global economic hub; (ii) support in development of industrial, commercial, and technology zones along the corridor; (iii) develop modern, climate resilient and sustainable infrastructure; (iv) enhance regional connectivity to boost trade and logistics; (v) promote social and economic integration through balanced regional growth; (vi) attract private investment and boost employment and job creation:

Roads and Buildings Department of Government of Telangana (hereinafter known as "R&B Department, GoT" or "the Authority") is the nodal agency for Project Consultant for DPR Preparation, PMU and Technical, Financial and Transaction Advisory for the development of Hyderabad Regional Ring Road (Southern Part). The Authority intends to Project Consultant for DPR Preparation, PMU and Technical, Financial and Transaction Advisory for the development of Hyderabad Regional Ring Road (Southern Part) for coordinated support and assistance at the apex level.

2. Objective of setting up Project Support Office (PSO)

The key objective of the PSO includes co-ordination at the nodal level to support the Authority, or its nominated agency, for overall handholding for the Authority from "concept to commissioning" of the project. The consultant shall be required to support in day-to-day operations of the Authority. with all stakeholders and concerned parties such as state and central government agencies, contractors/ concessionaires, authority engineers, bankers, etc. in a time bound manner and to ensure desired output as envisaged for each of the stakeholders of the Project. The PSO will be required to maintain uniformity and support in timely clearances of technical and commercial aspects of the entire project. Besides this, the PSO will be responsible for preparation of various technical and commercial presentations, to be demonstrated and discussed with various government authorities, financial institutes, social and political organizations and media.

The work of PSO will not absolve the roles and responsibilities of any of the parties associated with the project, namely contractors/concessionaires, authority's engineers, the System Integrator (SI), and all such agencies appointed or to be appointed for the project.

The PSO shall be assigned work related to advisory and support function in nature by the Authority from time to time in relation to development of Hyderabad RRR, arise during the contract period. Accordingly, the PSO should perform duties and obligations in areas of project so that the project shall be implemented and completed in a good manner.

3. Detailed scope of work

Scope of work for the PSO is divided into following five Modules considering development and implementation phase of the Hyderabad RRR.

Module 1 – Strategic Development Plan- Preparation of Project Vision and Concept as part of Pre-Feasibility stage and project preparatory work, including preparation of road development monitoring and information system wireframe (2 months).

Module 2 – Techno-commercial feasibility assessment and Detailed Project Report (DPR) (3 months)

Module 3 - Procurement of contractor/ concessionaire and independent engineers (3 months)

Module 4 - Financial structuring and fund raising (6 months, in parallel with module 3)

Module 5 - Construction and project implementation (22 months in parallel with module 4)

Total Duration of the project is 30 Months.

Detailed description of scope of work under each module is provided below:

Module 1- Pre-Feasibility stage and project preparatory work

Key Objective:

- 1. Project vision and implementation roadmap- planning and phasing of the entire project corridor (the RRR and its linked regional clusters)
- 2. Project concept for overall regional development and support the Authority in alignment fixation for the RRR
- 3. Finalization of project implementation strategy, including funding options (PPP/EPC etc)
- 4. Preparation of project monitoring dashboard framework

Detailed scope of work shall include the following:

Stage I: Project Vision and Concept - Comprehensive Development and Planning Strategy Corridor development strategy

The Consultant shall lay out the vision for development of the Corridor and lay out the corridor management strategy. The following tasks shall be performed as part of the said module:

 Conduct benchmarking of Global and Indian examples of successful corridor development similar to the proposed corridor

- II. Prepare SWOT assessment for the RRR corridor and its region in line with the key learning's from industry best practices
- III. Develop tailor-made concept options inspired by successful global corridor projects
- IV. Prepare strategic plan for the development of the corridor. This plan should cover an integrated vision for the entire influence region of the Project
- V. Use global metrics & KPIs from comparable projects to define clear success indicators for the project
- VI. Formulate phasing strategy for cluster development basis a prioritisation framework (basis strategic importance, marketability, infrastructure & logistics availability etc.) and identify priority clusters for development

Stage II- Support in Alignment fixation (capacity/traffic estimation, preliminary social impact assessment, cost estimates etc.)

- I. Support in reconnaissance survey for structure inventory- collation of as-is condition of all the existing road network for widening/expansion and/ or map study of alternative alignments by using satellite or appropriate technique for fixing of suitable alignment
- II. Support in collating data for road stretches under consideration, bridge inventory and identification of toll plaza locations
- III. Support in collection of data through secondary sources traffic data village maps, accident data, socio-economic profile, proposed developments in the project influence zone etc
- IV. Conduct a site analysis to document the strengths, weaknesses, opportunities, and threats (SWOT) associated with the larger project area
- V. Prepare preliminary engineering (block) estimates for the most preferred alignment
- VI. Traffic assessment broad level traffic forecast and estimation of tollable traffic.
- VII. Viability analysis, based on traffic forecast output, considering the effect of other Peripheral roads and Radial Roads in the vicinity of these cities/ growth centres which are either tolled or are being taken up or already taken up under BOT projects. The alignment/ sections of ring/radial road (including Bypass and realignments if any) already undertaken/ being undertaken by any other Authority shall be in harmony with these projects of R&B Deptt, Telangana and conflict, if any, shall be minimized.
- VIII. Block Cost estimation of various prospective connections regarding quantum of work pertaining to rehabilitation/up-gradation and improvement on the basis of collected data from various agencies, provision of service roads, suitable grade separated intersections, underpasses / flyovers / ROB's, widening/ rehabilitation/ construction of bridges/ structures, road safety features etc.

Stage III: Project implementation strategy and funding mechanism

- I. Recommend a suitable alignment based on preliminary technical and financial viability of the project including prioritization of the identified sections.
- II. Prepare prioritization plan of the sections keeping in view traffic demands and technical and financial viability
- III. Support in preparation of preliminary land acquisition plans and R&R plans
- IV. Support in preparation of guidelines for relocation of utility relocation plans
- V. Preparation of broad level design guidelines and standards
- VI. Analysis of financing option to develop the financing program, including alternate revenue options and their potential

- VII. Preparation of the implementation program with identified phasing, if any.
- VIII. Suggest project implementation strategy and funding mechanism, including innovative financing mechanisms
 - a. Public-Private Partnerships (PPPs):
 - Propose models for collaboration with private partners and risk-sharing.
 - b. Tolling Mechanisms:
 - > Assess the feasibility of implementing tolls.
 - > Propose toll rates and collection methods.
 - Analyse projected revenue streams and their impact on traffic patterns.
 - c. Infrastructure Bonds:
 - Explore the issuance of bonds to finance the project.
 - > Provide analysis on bond market conditions and investor interest.
 - > Recommend bond structures, including maturity periods and interest rates.
 - d. Other Creative Financial Instruments:
 - ➤ Identify alternative funding sources such as grants, loans, and special taxes
 - ➤ Propose innovative financial instruments like value capture financing, shadow tolls, or land value taxes
 - e. Comprehensive Analysis:
 - > Conduct a thorough analysis of each proposed financing option.
 - > Outline the potential benefits, risks, and implementation strategies.
 - > Provide case studies or examples of successful implementations in similar projects.
- IX. Identify potential mechanisms for recovering costs within the RRR (road project), such as user fees, tolls, lease payments, or service charges. Evaluate other benchmark projects for these mechanisms in relation to the RRR (road project).
- X. Risk Identification: Analyze the availability of essential resources required for the RRR (road project) and identify potential supply chain risks that could impact project delivery.

Stage IV: Project Monitoring Framework

- I. Evaluate the readiness and appropriateness of existing technologies to be utilised within the RRR (road project). Assess the need for new technologies or upgrades to meet the specific requirements of the RRR (road project).
- II. Support in preparation of monitoring dashboard framework- Road Development and Monitoring System Framework (RDMIS)
 - a. Add project level details such as project name, agencies involved and budget.
 - b. Define the various stages involved in implementing the project which can further be broken down into tracks. These stages and tracks can be defined based on the impact it has on the entire life cycle of the project.
 - c. Determine project dependencies if any.
- III. Presentations to support in facilitating requisite approvals for project implementation

Key Deliverables and timelines

Module 1 – Strategic Development Plan- Preparation of Project Vision and Concept as part of Pre-Feasibility stage and project preparatory work, including preparation of road development monitoring and information system wireframe (2 months).

Sr. No	Key Deliverable	Timelines in weeks (T= module start date)
1	Project vision and concept report- including corridor development strategy	
	and Alignment options (3 alternatives)- including tentative land acquisition	T + 4 weeks
	and broad project cost estimates	
2	2 Draft pre-feasibility report- including preliminary traffic assessment and $T+\epsilon$	
	region connectivity plan	1 + 0 weeks
3	Final pre-feasibility report- including indicative list of all project	
	components, high level financial and economic viability assessment and	T + 7 weeks
	recommendation of project implementation strategies	
4	Final presentation- to Authority and concerned stakeholders for facilitating	T + 8 weeks
	approvals for go-ahead on the proposed project concept	1 + 6 WCCKS
5	Submission of RDMIS wireframe	T + 8 weeks

Team composition

Sl. No	Key Personnel	Years of experience	Person-month inputs- full-time deployment
1	Team Leader cum Project Planning and Management Expert		2
2	Highway Design Expert	15 years	2
3	Land Acquisition Expert	10 years	2
4	Environment Expert	10 years	2
5	Financial cum Fund Raising Expert	10 years	2
6	ITMS Expert	10 years	2
7	Land Monetization Expert	10 years	2
8	Urban & Regional Planner/ Node development expert	15 years	2
9	IT/ dashboarding Expert	10 years	2
10	Social Expert	10 years	2
11	Utility Expert	10 years	2
12	PMU Experts (2 nos)- 1 dashboarding expert, 1 financial and economic expert	7 years	4
13	Support staff and subject matter experts (2 nos)- <i>I</i> communication & branding expert, <i>I junior civil</i> engineer	5 years	4
	Total		30

Module 2- Techno-commercial feasibility assessment Detailed Project Report (DPR)

Key Objective:

- 1. Finalization of project components based on techno-commercial viability assessment.
- 2. Preparation of detailed project report(s), based on identified packages of the RRR
- 3. Preparation of bidding documents based on finalised project implementation strategy (EPC/ PPP)
- 4. Preparation of project monitoring mechanism
- 5. Preparation of Investor Outreach strategy and investment roadmap

This stage shall focus on establishing the technical, economical, and financial viability of the project and prepare detailed project reports for rehabilitation/ upgrading/ construction of the new alignment of the RRR.

The viability of the project shall be established taking into account the requirements with regard to rehabilitation, upgrading and improvement based on expressway design, pavement design, provision of service roads wherever necessary, type of intersections, rehabilitation and widening of existing and/or construction of new bridges and structures, road safety features, quantities of various items of works and cost Key estimates and economic analysis

The entire corridor shall be analysed by suitable engineering and subject matter experts, appointed by the Consultant, for preparation of techno commercial feasibility report(s) and detailed project report(s) based on the finalized project implementation structure (PPP/EPC etc), in consultation with the Authority.

The role of the Nodal Consultant shall be in providing complete handholding support to the Authority for the following activities:

- I. Prepare Techno-commercial feasibility report(s) and Detailed Project Report(s) as per the finalised project implementation structure
- II. Prepare standard templates for required project documents for techno commercial feasibility report(s) and DPR(s) in consultation with the Authority
- III. Undertake project preparation works of various project components so as to have consistent, uniform and accurate final detailed project report and tender documents etc. in time bound manner. Nodal consultant will be responsible for all the required activities for getting the DPR approved and implemented by the R&B Deptt, to maintain uniformity with reference to technical and commercial aspects of the entire project.
- IV. Prepare monitoring dashboard showcasing progress including identification of critical red flags, suggest resolutions, progress of payments and other contractual issues
- V. Prepare various technical and commercial presentation to be presented to various govt. authorities, financial institutes, social and political organization.
- VI. Finalization of project implementation structure and mechanism, including project timelines, phasing and packaging (as required).

Typical activities and components of the Techno-Commercial Feasibility Report(s) and Detailed Project Report(s) shall be as follows:

Stage 1: Quality Assurance Plan (QAP) as part of an integrated Inception repot covering the following:

I. Project appreciation;

- II. Detailed methodology to meet the requirements of the study contours finalised in consultation with the R&B Deptt officers; including scheduling of various sub-activities to be carried out for completion of various stages of the work; stating out clearly their approach & methodology for project preparation after due inspection of the entire project stretch and collection/ collation of necessary information;
- III. Task Assignment and Manning Schedule;
- IV. Work programme;
- V. Proforma for data collection;
- VI. Key plan and Linear Plan;
- VII. Development plans being implemented and / or proposed for implementation in the near future by the local bodies and the possible impact of such development plans on the overall scheme for field work and design for the study;
- VIII. Draft design standards

Stage 2: Techno Economic Feasibility

- I. Project description including possible alternative alignments/ bypasses and technical/engineering alternatives
- II. Socioeconomic profile of the project areas
- III. Road safety audit including black spot identification and analysis
- IV. Indicative design standards, methodologies and specifications
- V. ITS components, including design and system components
- VI. Comprehensive ITS framework for the project, including components such as CCTV, Automatic Incident Detection (AID), Variable Message Signs (VMS), and tolling systems.
- VII. Layout of an optical fiber network to support the communication needs of the ITS.
- VIII. Traffic surveys and analysis
- IX. Traffic and toll management strategies
- X. Outline proposals for rehabilitation / widening of existing roads including shoulder composition and cross sections; rehabilitation / widening of existing structures; new bridges, cross structures, underpasses/overpasses, subways; reconstruction of existing structures; service roads, truck lay byes, bus stops, etc in order to finalize those before taking up the detailed design
- XI. Environmental screening and initial environmental examination
- XII. Checklists for involuntary resettlement, indigenous people's development, and initial poverty and social assessments; Initial social impacts including impacts on poverty and on indigenous people
- XIII. Preliminary land acquisition/resettlement impact, and resettlement requirements
- XIV. Preliminary Cost estimates- for all components of the project (RoW, utility corridor, ITMS and other ancillary components etc)
- XV. Economic analysis
- XVI. Risk management and mitigation strategy

Stage 3: Detailed Project Report (DPR)

Basis the approval of Stage 1 and 2 of Module 2, the Consultant shall undertake the preparation of the DPR(s) as per the typical structure and content given in Annexure 1 of the Scope of Work

Typical deliverables for the DPR(s) shall be as follows

- I. Design report- RoW, utility corridor, ITMS and other ancillary components of the project as finalised during the DPR stage
- II. Materials report
- III. Cost estimates
- IV. Rate analysis
- V. Detailed drawings
- VI. Social Assessment Report including Resettlement Plan

Stage 4: Dashboarding and Reporting-RDMIS

- I. Dashboard framework: The Nodal Consultant shall provide a visual representation of all the data that is added on the RDMIS. The following shall be included as key features of the Dashboard:
 - a. Monitor & visualize the overall progress of the projects added on the RDMIS.
 - b. Timeline representation of various tasks and activities of the project plan under specific stages added on the project level.
 - c. Dedicated project page for view all details on a single screen.
 - d. Drill down feature for the user to navigate through multiple tasks and activities to monitor progress or evaluate the core reason for any delay.
 - e. Dynamic Key Performance Indicators (KPIs) relevant to various projects which associate in analyzing the progress.
 - f. Add comments or observations for various activities being reviewed through the dashboard
 - g. View the progress images and videos in the Gallery (month wise)
 - h. Access & export detailed data associated with the KPI being recorded on the Dashboard
 - i. Download PDF reports based on the data being captured on the Dashboard.
- II. User and access management (UAM): The UAM module shall involve creation and managing the RDMIS users as well as define the access privileges to use the system. The UAM module shall involve the following features:
 - a. Add/Update/Delete User:
 - Create a new user, update the details of existing users or delete users from the system.
 - Add user level details such as name of the user, designation, mobile number, email ID, profile picture, username, and password.
 - Associate the user to a specific agency.
 - Align the user to one or many projects which have been added on RDMIS.
 - b. Assign Privilege:
 - Manage access rights of various users added to the RDMIS.
 - Access rights are defined at module and action level, i.e., various actions can be performed on a particular module and the user can be given the privilege to perform specific action within that module.
 - Ensure a secure and master driven system to reduce error.
- III. Meeting Scheduler & Organizer: The Meeting scheduler module in the RDMIS shall allow the user to create meetings and invite the various users of the system. The nodal consultant shall prepare the meeting scheduler incorporating the following features:

- a. Add/View Meeting:
 - > Create a new and access the previous meetings
 - > Add an Agenda for the meeting
 - > Upload any relevant documents to be presented during the meeting. These documents are archived and documented for that meeting
 - Maintain a Record of Discussion (RoD) capturing the minutes of the meeting and the list of attendees after the completion of the meeting for future records and reference.
 - > Download the RoD document as a PDF file.
- b. View RoD:
 - ➤ Upload the minutes of various meetings being undertaken.
 - Month-wise categorization of various RoDs being captures in the Add/View Meeting module as well as any additional meeting documents being added using the upload feature.
- **IV.** Tracking and monitoring of land acquisition progress: The Nodal Consultant shall be required to support the Authority in monitoring and tracking the progress of land acquisition through RDMIS as per the following:
 - The module should be able to track the land progress on a GIS layer
 - This module should allow for marking the land parcels
 - > The module should be able to track and trace land acquisition approval
 - > The module shall allow for progress tracking and observation history of the land parcel thus identified
 - ➤ The module shall be able to assess the red flags and record the redressal mechanism adopted for issue resolution

Module 3 - Procurement of EPC contractor/ PPP concessionaire and independent engineers/ Authority's Engineers and other system integrators for ITS and utility corridor components and Stakeholder Consultation

- I. Preparation of Bid documents for the respective contract package(s)
 - a. Volume-I shall contain Instructions to Applicants, Appendix to Bid, General and Particular Conditions of Contract based on FIDIC, various Forms etc.
 - Volume-II shall contain Technical Specifications based on MORT&H's Technical Specifications for Road and Bridge works;
 - c. Volume-III shall contain Bill of Quantities
 - d. Volume-IV shall contain drawings
 - e. Volume X : Strip Plan and Clearances
- II. Bid process management based on final project implementation mechanism (PPP/EPC)
 - a. For concessionaire/contractor(s)
 - b. For independent engineers/ authority's engineers
- III. Preparation of tender documents and the evaluation of bids for the implementation of an Intelligent Transport System (ITS), Utility corridor and other ancillary components
- **IV.** Undertake bid process management for onboarding system integrators/ developers for respective components as defined as part of the project, during the DPR and procurement stage
- V. Stakeholder Consultation
 - a. Consultant shall carry out an initial market sounding exercise to test the interest of key developers / investors and priority industry players.

- b. Undertake a stakeholder consultation with investors from prioritized industries/ sectors to understand their perspective on the project
- c. Engage with 5-10 industry leaders/developers (CXO level officials) and associations to get view on strategic and operational value of the Corridor monetization plan
- d. Prepare an overall business and financial model for each of the 2-3 prioritized Prosperity Hubs/Industries/ economic nodes and develop a funding plan incorporating the development models for each of the key components.
- e. Compute the equity cash-flows, equity IRR and debt service coverage for the overall Project
- f. Prepare an overall timeline for implementing each of the key components as well as the overall Project

Key deliverables (Module 2 and 3) - 6 months

Sr. No.	Key Deliverables	Timelines in weeks (T= module start date of 2)
Techr	no-commercial viability report and project structuring	
1	Inception Report on methodology for collation of key deliverables in a standardized manner	T + 2 weeks
	Preparation of standard templates for techno-commercial feasibility report	
2	Preparation of monitoring dashboard showcasing progress land acquisition process and work of various consultants through a PMIS tool	T + 4 weeks
	Submission of Corridor monetization plan]
	Submission of techno commercial feasibility report (based on identified study packages) comprising of cost, traffic and revenue streams, node development assessment	
3	Submission of the compiled Techno Commercial Feasibility Report for the entire project	T + 10 weeks
	Submission of economic growth plan including identified priority sectors and players	
4	Submission of final recommendations on project implementation strategy report on phasing, packaging, financing and project risk management based on EPC/ PPP mode	T + 12 weeks
	Submission of final business plan and implementation strategy	
Detai	led project report and tender documentation	
5	Preparation of DPR/ final detailed feasibility report templates based on the final project implementation strategy (PPP/EPC)	T + 14 weeks
6	Submission of progress reports and monitoring dashboard showcasing progress and land acquisition process through PMIS tool	T + 16 weeks
	Submission of DPRs (based on identified study packages)	
7	Submission of compiled DPR(s) and project appreciation document with final detailed project cost estimates	T + 18 weeks
8	Preparation of Standard Contract Document- compilation of tender specifications from all DPRs for contractor/ concessionaire and independent engineers/Authority's Engineers based (PPP/EPC)	T + 20 weeks
	Finalization of transaction structure for onboarding of investors/ developers for priority sectors/ industries	

Sr. No.	Key Deliverables	Timelines in weeks (T= module start date of 2)	
9	Finalisation of Tender Document(s) for selection of contractors/ developers etc	T + 20 weeks	
Bid process management for selection of contractor/ concessionaire and independent			
engin	eers/Authority's Engineers/ system integrators		
10	Bid process management till issuing LOA and signing of contract	T + 24 weeks	
Proje	ct Management and Monitoring Support		
11	Periodic outputs and reports from dashboarding and monitoring activities	Weekly/ fortnightly/ monthly/ quarterly	
12	Handholding support for branding and communication activities	As per requirement	

Team Composition

Sl. No	Key Personnel	Years of experience	Man-month inputs- full- time deployment
1	Team Leader cum Project Planning and Management Expert	15 years	6
2	Highway Design cum Pavement Expert	15 years	6
3	Sr. Quantity Surveyor	15 years	6
4	Environment Expert	10 years	6
5	Sr. Structural and Bridge Design Expert	10 years	6
6	ITMS Expert	10 years	6
7	Procurement Expert	10 years	6
8	Urban & Regional Planner- Node Development Expert	15 years	6
9	IT/ dashboarding Expert	10 years	6
10	Social Expert	10 years	6
11	Land Monetization Expert	10 years	6
12	Engineering Expert (1 No.s) – CADD Expert PMU Experts (3 nos)- 1 dashboarding expert, 2 financial experts, 1 market outreach expert	7 years	24
13	Support staff and subject matter experts (4 nos)- 1 communication & branding expert, 1 junior engineer, 2 BPM experts	5 years	24
	Total		114

Module 4 - Financial structuring and fund raising

Key objective of financial structuring and fund raising are:

- 1. Assessing total requirement of the fund from Authority's side and its phasing, including structuring the transaction
- 2. Selection of bank syndicate/ financial institutes
- 3. Handholding support for fund raising and financial closure

The PSO shall be responsible for the following tasks:

- I. Finalization of project financing mechanism and structuring framework
- II. Preparation of Project Information Memorandum (PIM) which will include a detailed financial model. Outputs from the model shall include:
 - a. Financial Statements (Cash Flow, Profit & Loss and Balance Sheet projections).
 - b. Scenario Analysis.
 - c. Performance indicators and returns matrices (FCFF, FCFE, project IRR and equity IRR).
 - d. Outputs from lenders perspective (DSCR, Coverage ratios, PLCR, LLCR, etc)
- III. Support in facilitating meeting of key stakeholders with R&B Deptt. to identify potential of alternate revenue source. Real Estate Developers, Utilities, Contractors, Oil & Gas Companies, Education Institutions, Auto & Hospitality Industry etc. are few key patrons.
- IV. Evaluate the possible agreement between these patrons and the Authority. (Cost of Road show (if shall be conducted by the Consultant) will be borne by the Authority.)
- V. Suggest and recommend Innovative financing mechanisms, identification of alternate revenue sources and undertaking analysis for provision of possible fiscal and special incentive like tax royalty.
- VI. Support in presentations to be made by Authority to various domestic and international stakeholders and prospective financing agencies (banks/ multi-lateral institutions/ private sector players etc).
- VII. Meeting key stakeholders of various funding agencies and identifying option of debt syndication and refinancing. Exploring funding options like RTL/ECB/ECA/Bonds/MLA.
- VIII. Developing funding strategy based on the most viable option suitable for the project.
 - IX. Support to the Authority with preparation of project financial management arrangements including but not limited to filling up the financial management assessment questionnaire, documenting agreements, drafting ToRs for statutory and internal audit in consultation with the Banks and the Clients, getting clearance on key arrangements, and drafting project accounting and financial management manuals as necessary.
 - X. Support in successful negotiations with concerned parties and stakeholders
 - XI. Support and handhold the Authority to take such remedial action on its behalf and report further on the results.
- XII. Finalize the overall disbursement plan
- XIII. Support in overall financial closure with the financers
- XIV. Support in formulation of project SPV with legal and tax compliance requirements in collaboration with other appointed advisors (Eg; legal advisors, company secretary, etc)
- XV. Prepare necessary documentation & coordinate with Credit Rating Agencies to enable highest possible credit rating of the SPV

- XVI. Support in formulation of project special planning authority (SPA), including definition of roles and responsibilities.
- XVII. Manage the project preparation archives and keep a record of various correspondences with date, subject and description to facilitate monitoring of progress in project preparation by the Authority.
- XVIII. Continuous support in monitoring and managing the dashboard updates as per the ongoing activities/ meetings/ procurement processes/ documentations etc

Key deliverables

Sr. No	Key Deliverable	Timelines in weeks (T= module start date)
1	Preparation of PIM	T + 4 weeks
3	Transaction advisory- support in negotiations with financers	T + 10 weeks
4	Support in Financial closure	T + 24 weeks
5	Support in formation of SPV	T + 24 weeks
6	Periodic inputs on project monitoring and progress	As per requirement

Team Composition

Sl. No.	Key Personnel	Qualification	Man-month inputs
1	Team Leader cum Finance Expert	15 years	06
2	Procurement Expert	15 years	06
3	Debt structuring expert	15 years	06
4	Legal Expert	10 years	06
5	IT/ dashboarding Expert	10 years	06
6	PMU Experts (5 nos)- 3 dashboarding expert, 2	7 years	30
	financial experts	-	
	Total		60

Module 5- Construction and project implementation

Key Objective:

Complete handholding support during the construction phase, upto project commissioning

The current tasks have been outlined, on the basis of PPP/any other viable Mode. The Consultant shall be expected to handhold the Authority upto the Defects Liability Period and also ensure complete financial closure. The tasks and activities for PPP mode shall be outlined on mutually agreed terms.

PSO shall be responsible for the following tasks:

- I. Advise Authority on all the technical, Commercial, financial and administrative matters pertaining to the Project.
- II. Advise Authority in all-important decision-making pertaining to the project planning and progress including design, costing, contractual, legal, administrative, change in scope etc. and any other important project related issues.

- III. Co-ordinate with all Project Stakeholders ie. Contractors, Authority Engineers, any other Consultant for the Project.
- IV. Coordinate, Collate and Analyse the output of OSO, SI and 5D BIM and provide feedback for the performance of OSO to deliver time bound solutions on all project related issues
- V. Setting up collaborative framework for technical document control and management
- VI. Advise and support the Authority in preparing monthly/ yearly capital outflow
- VII. Assist the Authority in tracking Baseline budget and relevant control over contingency monitoring with respect to cost deviation output
- VIII. Review and advise Authority in the overall governance and controls as well as preparation and adaptation of manuals or guidelines for various stages of the project
 - IX. Support Authority in developing effective communication framework and defining Standard operating procedure for their effectiveness
 - X. Develop strategies towards Project marketing, branding and communication.
 - XI. Support Authority in overall program analysis including economic and social benefit monitoring as well as monitoring of environment and forest department compliances.
- XII. Transaction advisory for onboarding consultants, vendors etc
- XIII. Coordinate for project related Event Management as and when required.
- XIV. Assist the Authority in implementation of policies, processes, procedures and systems for the collection, storage, protection and dissemination of all Project documentation.
- XV. Advise the Authority to prepare a comprehensive risk management plan covering potential risks for the Project throughout the duration of the Services
- XVI. Prepare a comprehensive project charter for successful implementation of 5D BIM platform for management of Project
- XVII. Support the Authority in defining the approach and methodology and tools to meet the project objective of various aspects such as 5D BIM implementation, Utility Corridor and other initiatives of the Authority along with its respective Consultants
- XVIII. Based on the vision of Management, PSO will define the organizational & functional framework for the project.
- XIX. As part of the dashboarding and monitoring module, the Nodal Consultant shall be responsible for the following throughout the assignment to undertake the below mentioned tasks and activities:
 - a. Document Management System (DMS): The Consultant shall prepare a DMS for data storage within the RDMIS enabling users towards easy access and management of various documents generated/created for the project. The DMS shall have the following features:
 - ➤ A centralized and secure storage for various documents
 - Provision of access to these documents through the privileges assigned in the UAM module
 - > Streamlined retrieval of various documents uploaded in the DMS.
 - ➤ Incorporation of various document formats (Word, PDF, Excel file, Image, Video, Map, or any other file type.)
 - b. Communication & Observation History: The RDMIS allows its users to collaborate and communicate effectively to ensure smooth flow of information among stakeholders. The Communication and Observation History module shall incorporate the following features:

- ➤ A Chat feature for the users to share messages or relevant information on the RDMIS platform.
- ➤ Notification and Alerts to let the users know of any action pending on their end and information dissemination of various actions taken on the RDMIS. The users may be notified through E mail (if integrated with the portal).
- The actions undertaken by the users shall be recorded in the Observation History which acts as an Audit Trail to keep track of various activities undertaken on the RDMIS.
- c. Invoice Management: The Invoice management module in the RDMIS shall incorporate the following features to help the users to effectively manage and monitor the financial information of the project. The Invoice Management shall have the following features:
 - ➤ Define payment milestones Time & Material, Milestone based (raise invoice against physical/financial progress of a project, task, or activity and allocate the payment % based on the progress recorded against a particular milestone) or any other payment milestone.
 - ➤ Invoice tracking provision for monitoring the invoice lifecycle by the various stakeholders involved. The invoice may be submitted by the contractor/consulting partner of the client. The client may monitor the submitted invoice and approve/seek further clarifications/reject the invoice.
 - Approvals and queries Add approvers responsible for reviewing the submitted invoice. The approvers can seek for additional information from the contractor/consulting partner. The audit trail of all actions/queries/remarks are recorded in the Observation History for future reference.
 - ➤ Document proof submission The documents associated with the invoice submission process can be uploaded at the time of invoice submission. If the approver needs any further documents, the approver may ask the contractor/consulting partner to submit the proof.

Key Deliverables

Monthly progress reports, quarterly review reports, MIS reports, milestone dashboard updates, marketing collaterals, as and when needed

The PSO is required to give their comments on the reports submitted by project consultants/ authority's engineers within 15 days from the date of respective submissions. Monthly reports will be produced by the eighth day of each subsequent month which would cover the various details carried out during the month and the targets proposed for next month/ milestone.

Sr. No	Key Deliverables	Timelines in weeks (T= module start date)
1	Mobilization of Team	T + 2 weeks
2	Inception Report	T + 4 weeks
3	Monthly Progress Report	T + 88 weeks
4	Final project Appraisal and Closure Report	T + 88 weeks

Team composition

Sl. No	Key Personnel	Years of experience	Man-month inputs- full-time deployment
1	Team Leader cum Project Planning and Management Expert	15 years	22
2	Highway Design Expert	15 years	22
3	Procurement Expert	15 years	22
4	Environment Expert	10 years	22
5	Financial cum Fund Raising Expert	10 years	22
6	ITMS Expert	10 years	22
7	Contract Management Expert	10 years	22
8	Urban and Regional Planner	15 years	22
9	IT/ dashboarding Expert	10 years	22
10	Social Expert	10 years	22
11	Land Monetization Expert	10 years	22
12	PMU Experts (5 nos)- 3 dashboarding expert, 1 engineering expert, 1 financial and economic expert	7 years	110
13	Support staff and subject matter experts (5 nos)-1 communication & branding expert, 2 site engineers, 2 Contract management experts/ investment promotion experts	5 years	110
	Total		462

Annexure 1 of Schedule I

(Scope of work of DPR for Module-2)

1. Key tasks

- (i) Review of all available reports and published information about the project road and the project influence area;
- (ii) Environmental, poverty and social impacts, including those related to cultural properties, indigenous people natural habitants, involuntary resettlement etc.;
- (iii) Public consultation, including consultation with Communities located along the road, NGOs working in the area, other stake-holders and relevant Govt. deptts at all the different stages of assignment (such as inception report stage, interim report stage, detailed project report (Part-I) stage and detailed project report (Part-II) stage;
- (iv) Detailed reconnaissance;
- (v) Identification of possible improvements in the existing alignment and bypassing congested locations with alternatives, (please note that the project design does not envisage any land acquisition, hence such elements shall not be included for further evaluation, design, costing and analyses);
- (vi) Traffic studies including traffic surveys and axle load survey and demand forecasting for next thirty years;
- (vii) Inventory and condition surveys for road;
- (viii) Inventory and condition surveys for bridges, cross-drainage structures and drainage provisions;
- (ix) Detailed topographic surveys using Total Stations and GPS;
- (x) Pavement investigations;
- (xi) Sub-grade characteristics and strength: investigation of required sub-grade and subsoil characteristics and strength for road and embankment design and sub-soil investigation;
- (xii) Identification of sources of construction materials;
- (xiii) Road safety audit to identity areas of major concern, including black spots, and measures to be taken for improving detailed engineering design with respect to road safety
- (xiv) Preliminary proposal for rehabilitation / widening including shoulder composition and cross-section details
- (xv) Detailed design for rehabilitation / widening of road, its x-sections, horizontal and vertical alignment and design of embankment of height more than 6m and also in poor soil conditions and where density consideration require, even lesser height embankment; detailed design for rehabilitation /widening/ reconstruction of bridges, cross-drainage structures, preparation of GAD and detailed drawings for bridges cross-drainage structures and underpasses etc.
- (xvi) Identification of the type and the design of intersections;
- (xvii) Design of complete drainage system and disposal point for storm water;
- (xviii) Value analysis / value engineering and project costing;
- (xix) Economic analyses;
- (xx) Selection of subprojects for funding in accordance with selection criteria and approval procedures (Supplement I);
- (xxi) Strip plan indicating the scheme for carriageway widening, location of all existing utility services (both over- and underground) and the scheme for their relocation, trees to be felled and planted;
- (xxii) Preparation of detailed project report, cost estimate, good for construction drawings, rate analysis, detailed bill of quantities;
- (xxiii) Bid documents for execution of civil works including provisions for 3 years maintenance by the civil contractor;

- (xxiv) Preparation of resettlement plans for the project affected people as per State R & R Policy.
- 2. While carrying out the field studies, investigations and design, the development plans being implemented or proposed for future implementation by the local bodies, should be taken into account. Such aspect should be clearly brought out in the reports and drawings.
- 3. The consultant shall plan the arboriculture along the highway.

4. Standards and Codes of Practices

- 4.1 All activities related to field studies, design and documentation shall be done as per the latest guidelines/ circulars of MORTH and relevant publications of the Indian Roads Congress (IRC) and Bureau of Indian Standards (BIS). For aspects not covered by IRC and BIS, international standard practices, such as, British and American Standards may be adopted. The Consultants, upon award of the Contract, may finalise this in consultation with the Authority and reflect the same in the inception report.
- 4.2 All notations, abbreviations and symbols used in the reports, documents and drawings shall be as per IRC: 71-1977 amended up to date.

5. Quality Assurance Plan (QAP)

The Consultants should have detailed Quality Assurance Plan (QAP) for all field studies including topographic surveys, traffic surveys, engineering surveys and investigations, design, analyses and documentation activities. The draft detailed QAP Document must be discussed and finalised with the concerned officers of the Authority, immediately upon the award of the Contract and submitted as part of the inception report.

6. Review of Data and Documents

The Consultants shall collect the available data and information relevant for the Study. The data and documents of major interest shall include, but not be limited to, the following:

- (i) Climate;
- (ii) Road inventory;
- (iii) Road condition, year of original construction, year and type of major maintenance/rehabilitation works;
- (iv) Condition of bridges and cross-drainage structures;
- (v) Sub-surface and geo-technical data for existing bridges;
- (vi) Hydraulic data, drawings and details of existing bridges;
- (vii) Detailed of sanctioned / on-going works on the stretch sanctioned by MORT&H/ other agencies for Tie-in purposes;
- (viii) Survey and evaluation of locally available construction materials;
- (ix) Historical data on classified traffic volume (preferably for 5 years or more);
- (x) Origin-destination and commodity movement characteristics; if available;
- (xi) Speed and delay characteristics; if available;
- (xii) Commodity-wise traffic volume; if available;
- (xiii) Accident statistics; and,
- (xiv) Vehicle loading behaviour (axle load spectrum), if available;
- (xv) Type and location of existing utility services (e.g. Fibre Optical Cable, O/H and U/G Electric, Telephone line, Water mains, Sewer, Trees etc.)
- (xvi) Environmental setting and social baseline of the project.

7. Traffic Survey

7.1. Number and Location of Survey Stations

The type of traffic surveys and the minimum number of survey stations shall normally be as under, unless otherwise specifically mentioned.

Sl. No.	Description	Number of Survey Stations per 100 km (or minimum
110.		numbers for shorter lengths)
1.	Classified Traffic Volume Count	3 (2)
2.	Origin-Destination and Commodity Movement Characteristics	Minimum of 2 per 200 km. (2)
3.	Axle Loading Characteristics	2(1)
4.	Intersection Volume Count	All Major Intersection
5.	Speed-Delay Characteristics	Project Road Section

- 7.1.1. The number of survey locations indicated in the table above are indicative only. The Consultants shall, immediately upon award of the work, submit to the Authority proposals regarding the total number as well as the locations of the traffic survey stations as part of inception report. Suitable maps and charts should accompany the proposals clearly indicating the rationale for selecting the location of survey stations.
- 7.1.2. The methodology of collection and analysis of data, number and location of traffic survey stations shall be finalised in consultation with Coordination Committee / the Authority.

7.2. Classified Traffic Volume Count Survey

7.2.1. The classified traffic volume count surveys shall be carried out for 7 days (continuous, direction-wise) at the selected survey stations. The vehicle classification system as given in relevant IRC code may be followed. However, the following generalised classification system is suggested in view of the requirements of traffic demand estimates and economic analysis:

Motorised Traffic			Non-Motorised Traffic
2-Wheeler	2-Wheeler		Bi-Cycle
3-Wheeler			Cycle-Rickshaw
Passenger	Car		Animal Drawn Vehicle (ADV)
Utility Vel	nicle (Jeep, Va	n etc.)	Hand Cart
			Other Non-Motorised Vehicle
Bus	Mini Bus		
	Standard Bus		
LCV	LCV-Passenger		
	LCV-Freight		
Truck MCV: 2-Axle Rigid Chassis		le Rigid Chassis	
	HCV: 3-Axle Rigid Chassis		
	MAV	Semi Articulated	
		Articulated	

7.2.2. All results shall be presented in tabular and graphical form. The survey data shall be analysed to bring out the hourly and daily variations. The traffic volume count per day shall be

- averaged to show a weekly Average Daily Traffic (ADT) by vehicle type. The Annual Average Daily Traffic (AADT) shall be worked out by applying seasonal factors.
- 7.2.3. The consultants shall compile the relevant traffic volume data from secondary sources also. The salient features of traffic volume characteristics shall be brought out and variations if any, from the traffic census carried out by the Authority shall be suitably explained.

7.3. Origin-Destination and Commodity Movements Surveys

- 7.3.1. The Consultants shall carry out 1-day (24 hour, both directions) O-D and Commodity Movement Surveys at locations finalised in consultation with the Authority. These will be essentially required around congested towns to delineate through traffic. The road side interviews shall be on random sample basis and cover all four-wheeled vehicles. The locations of the O-D survey and Commodity Movement surveys shall normally be same as for the classified traffic count stations.
- 7.3.2. The location of origin and destination zones shall be determined in relation to each individual station and the possibility of traffic diversion to the Project Road from/to other road routes including bypasses.
- 7.3.3. The trip matrices shall be worked out for each vehicle type information on weight for trucks should be summed up by commodity type and the results tabulated, giving total weight and average weight per truck for the various commodity types. The sample size for each vehicle type shall be indicated on the table and also in the graphical representations.
- 7.3.4. The data derived from surveys shall also be analysed to bring out the lead and load characteristics and desire line diagrams. The data analysis should also bring out the requirement for the widening of existing roads / construction of bypasses.
- 7.3.5. The distribution of lead and load obtained from the surveys should be compared with those derived from the axle load studies.
- 7.3.6. The commodity movement data should be duly taken into consideration while making the traffic demand estimates.

7.4. Turning Movement Surveys

- 7.4.1. The turning movement surveys for estimation of peak hour traffic for the design of major intersections shall be carried out for the Study. The details regarding composition and directional movement of traffic shall be furnished by the Consultant.
- 7.4.2. The methodology for the surveys shall be as per IRC: SP: 41-1994 and amended if any. The details including location and duration of surveys shall be finalized in consultation with the Authority officials. The proposal in response to this TOR shall clearly indicate the number of locations that the Consultants wish to conduct turning movement surveys and the rationale for the same.
- 7.4.3. The data derived from the survey should be analysed to identify requirements of suitable remedial measures, such as construction of underpasses, fly-overs, interchanges, grade-separated intersections along the project road alignment. Intersections with high traffic volume requiring special treatments either presently or in future shall be identified.

7.5. Axle Load Surveys

- 7.5.1. Axle load surveys in both directions shall be carried out at suitable location(s) in the project road stretch on a random sample basis normally for trucks only (both empty and loaded trucks) for 2 normal days (24 hours) at special count stations to be finalised in consultation with the Authority. However, a few buses may be weighed in order to get an idea about their loading behaviour. While selecting the location(s) of axle load survey station(s), the locations of existing bridges with load restrictions, if any, should be taken into account and such sites should be avoided.
- 7.5.2. The axle load surveys shall normally be done using axle load pads or other sophisticated instruments. The location(s) of count station(s) and the survey methodology including the data formats and the instrument type to be used shall be finalised before taking up the axle load surveys.
- 7.5.3. The axle load data should be collected axle configuration-wise. The number of equivalent standard axles per truck shall be calculated on the basis of results obtained. The results of the survey should bring out the VDF for each truck type (axle configuration, if the calculated VDF is found to be below the national average, then national average shall be used. Furthermore, the data from axle load surveys should be analysed to bring out the Gross Vehicle Weight (GVW) and Single Axle Load (SAL) Distributions by truck type (axle configuration).
- 7.5.4. The Consultant shall ascertain from local enquiries about the exceptional live loads that have used the highway in the past in order to assess the suitability of existing bridges to carry such loads.

7.6. Speed-Delay Surveys

7.6.1. However, the Consultants shall carry out appropriate field studies such as moving car survey to determine running speed and journey speed. The data should be analysed to identify sections with typical traffic flow problems and congestion. The objective of the survey would be to suggest for future action suitable measures for segregation of local traffic, smooth flow of through traffic and traffic safety. These measures would include the provision of bypasses, under-passes, overpasses, grade-separated intersections and service roads

7.7. Pedestrian / Animal Cross Traffic Surveys

7.7.1. These may be conducted to determine if provision of subways etc. for pedestrians/animals is necessary to improve the traffic safety.

7.8. Truck Terminal Surveys

7.8.1. The data derived from the O-D, speed-delay, other surveys and also supplementary surveys should be analysed to assess requirements for present and future development of truck terminals at suitable locations enroute.

7.9. Traffic Demand Estimates

7.9.1. The consultants shall make traffic demand estimates and establish possible traffic growth rates in respect of all categories of vehicles, taking into account the past trends, annual population and real per capita growth rate, elasticity of transport demand in relation to income and estimated annual production increase. The other aspects including socio-economic development plans and the land use patterns of the region having impact on the traffic growth, the projections of vehicle manufacturing industry in the country, development plans for the

- other modes of transport, O-D and commodity movement behaviour should also be taken into account while working out the traffic demand estimates.
- 7.9.2. The values of elasticity of transport demand shall be based on the prevailing practices in the country. The Consultants shall give complete background including references for selecting the value of transport demand elasticity.
- 7.9.3. The traffic demand estimates shall be done for the period, 2011-2041. The demand estimates shall be done assuming three scenarios, namely, optimistic, pessimistic and most likely traffic growth. The growth factors shall be worked out for five-yearly intervals.
- 7.9.4. Traffic projections should be based on sound and proven forecasting techniques. In case traffic demand estimated is to be made on the basis of a model, the application of the model in the similar situation with the validation of the results should be established. The traffic projections should also bring out the possible impact of implementation of any competing facility in the near future. The demand estimates should also take into account the freight and passenger traffic along the major corridors that may interconnect with the project. Impact of toll charges on the traffic estimates should be estimated.
- 7.9.5. The methodology for traffic demand estimates described in the preceding paragraphs is for normal traffic only. In addition to the estimates for normal traffic, the Consultants shall also work out the estimates for generated, induced and diverted traffic.
- 7.9.6. The traffic forecasts shall also be made for both diverted and generated traffic.
- 7.9.7. Overall traffic forecast thus made shall form the basis for the design of each pavement type and other facilities/ancillary works.

8. Engineering Surveys and Investigations

8.1. Reconnaissance and Alignment

- 8.1.1. The Consultants should make an in-depth study of the available land width (ROW), topographic maps, and other available relevant information collected by them concerning the existing alignment. Consultant has to arrange the required maps and the information needed by him from the potential sources. The Authority shall provide introductory/support letters, if required.
- 8.1.2. The detailed ground reconnaissance may be taken up immediately after the study of maps and other data. The primary tasks to be accomplished during the reconnaissance surveys include:
 - (i) Topographical features of the area;
 - (ii) Typical physical features along the existing alignment within and outside ROW i.e. land use pattern;
 - (iii) Possible alignment alternatives, vis-à-vis, scheme for the widening of the existing road;
 - (iv) Realignment requirements including the provision of bypasses, ROBs / underpasses/ overpasses and subways for pedestrian crossings with possible alignment alternatives;
 - (v) Preliminary identification of improvement requirements including treatments and measures needed for the cross-roads;
 - (vi) Traffic pattern and preliminary identification of traffic homogenous links;
 - (vii) Sections through congested areas;
 - (viii) Inventory of major aspects including land width, terrain, pavement type, carriageway type, bridges and structures (type, size and location), intersections (type, cross-road

- category, location) urban areas (location, extent), geologically sensitive areas, environmental features;
- (ix) Critical areas requiring detailed investigations; and,
- (x) Requirements for carrying out supplementary investigations;
- (xi) Soil (textural classifications) and drainage conditions;
- (xii) Type and extent of existing utility services along the alignment (within ROW).
- 8.1.3. The data derived from the reconnaissance surveys are normally utilised for planning and programming the detailed surveys and investigations. All field studies including the traffic surveys should be taken up on the basis of information derived from the reconnaissance surveys. The subprojects are to be designed for rehabilitation and upgrading within the RoW. The detailed surveys and investigation should normally extend a minimum of 30 m beyond either side of the centre line of the proposed divided carriageway or land boundary whichever is more.
- 8.1.4. The data and information obtained from the reconnaissance surveys should be documented. The data analysis and the recommendations concerning alignment and the field studies should be included in the Inception Report. The data obtained from the reconnaissance surveys should form the core of the database which would be supplemented and augmented using the data obtained from detailed field studies and investigations.
- 8.1.5. The data obtained from the reconnaissance surveys should be compiled in the tabular as well as graphical (chart) form indicating the major physical features and the proposed widening scheme for Authority's comments. The data and the charts should also accompany the rationale for the selection of traffic survey stations.

8.2. Topographic Surveys

- 8.2.1. The basic objective of the topographic survey would be to capture the essential ground features along the alignment in order to consider improvements and for working out improvements, rehabilitation and upgrading costs. The detailed topographic surveys should normally be taken up after the completion of reconnaissance surveys.
- 8.2.2. The carrying out of topographic surveys will be one of the most important and crucial field tasks under the project. The detailed field surveys shall be carried out using high precision instruments i.e. Total stations. The data from the topographic surveys shall be available in (x, y, z) format for use in a sophisticated digital terrain model (DTM). The Consultants would be fully responsive for any inaccuracy in surveys.
- 8.2.3. The detailed field surveys would essentially include the following activities:
 - (i) Topographic Surveys along the Existing Right of Way (ROW): Running a continuous open Traverse along the existing road and realignments, wherever required, and fixation of all cardinal points such as horizontal intersection points (HIP's), centre points and transit points etc. and properly referencing the same with a pair of reference pillars fixed on either side of the centre-line at safe places within the ROW.
 - (ii) Collection of details for all features such as structures (bridges, culverts etc.) utilities, existing roads, electric and telephone installations (both O/H as well as underground), huts, buildings, fencing and trees (with girth greater than 0.3 metre) oil and gas lines etc. falling within the extent of survey.

- 8.2.4. The width of survey corridor will generally be as given under:
 - (i) The width of the survey corridor should taken into account the layout of the existing alignment including the extent of embankment and cut slopes and the general ground profile. While carrying out the field surveys, the widening scheme (i.e. right, left or symmetrical to the centre line of the existing carriageway) should be taken into consideration so that the topographic surveys cover sufficient width beyond the centre line of the proposed carriageway. Normally the surveys should extend a minimum of 30 m beyond either side of the centre line of the proposed divided carriageway or land boundary whichever is more.
 - (ii) Where existing roads cross the alignments, the survey will extend a minimum of 100 m either side of the road centre line and will be of sufficient width to allow improvements, including at grade intersection to be designed.
- 8.2.5. The surveyed alignment shall be transferred on to the ground as under:
 - (i) Reference Pillar and Bench Mark / Reference pillar of size 15 cm X 15 cm X 45 cm shall be cast in RCC of grade M 15 with a nail fixed in the centre of the top surface. The reference pillar shall be embedded in concrete upto a depth of 30 cm with CC M10 (5 cm wide all around). The balance 15 cm above ground shall be painted yellow. The spacing shall be 250m apart, incase Bench Mark Pillar coincides with Reference Pillar, only one of the two need be provided.
 - (ii) Establishing Bench marks at site connected to GTS Bench marks at a interval of 250 metres on Bench mark pillar made of RCC as mentioned above with RL and BM No. marked on it with red paint

8.3. Longitudinal and Cross-Sections

- 8.3.1. The topographic surveys for longitudinal and cross-sections shall cover the following:
 - (i) Longitudinal section levels along final centre line at every 25 m interval, at the locations of curve points, small streams, intersections and at the locations of change in elevation.
 - (ii) Cross sections at every 50 m interval in full extent of survey covering sufficient number of spot levels on existing carriageway and adjacent ground for profile correction course and earth work calculations. Cross sections shall be taken at closer interval at curves.
 - (iii) Longitudinal section for cross roads for length adequate for design and quantity estimation purposes.
 - (iv) Longitudinal and cross sections for major and minor streams as per recommendations contained in IRC Special Publication No. 13 (Guidelines for the Design of Small Bridges and Culverts) and IRC:5-1998 ("Standard Specifications & Code of Practice for Road Bridges, Section 1 General Features of Design" for proposal for new bridges / reconstruction of existing bridges.

8.4. Details of utility Services and Other Physical Features

8.4.1. The Consultants shall collect details of all important physical features along the alignment. These features affect the project proposals and should normally include buildings and structures, monuments, burial grounds, cremation grounds, places of worship, railway lines, stream / river / canal, water mains, severs, gas/ oil pipes, crossings, trees, plantations, utility services such as electric, and telephone lines (O/H & U/G) and poles, optical fibre cables

- (OFC) etc. The survey would cover the entire right-of-way of the road on the adequate allowance for possible shifting of the central lines at some of the intersections locations.
- 8.4.2. The information collected during reconnaissance and field surveys shall be shown on a strip plan so that the proposed improvements can be appreciated and, utility removals of each type and tree cutting etc. assessed and suitable actions can be initiated. Separate strip plan for each of the services involved shall be prepared for submission to the concerned agency.

8.5. Road and Pavement Investigations

8.5.1. The Consultants shall carry out detailed field studies in respect of road and pavement features. The data collected through road inventory and pavement investigations should be sufficient to meet the input requirements of HDM-IV.

8.6. Road Inventory Surveys

- 8.6.1. Detailed road inventory surveys shall be carried out to collect details of all existing road and pavement features along the existing road sections. The inventory data shall include but not limited to the following:
 - (i) Terrain (flat, rolling, mountainous);
 - (ii) Land-use (agricultural, commercial, forest, residential etc) @ every kilometer;
 - (iii) Carriageway width, surfacing type @ every 500m and every change of feature whichever is earlier:
 - (iv) Shoulder surfacing type and width @ every 500m and every change of feature whichever is earlier;
 - (v) Sub-grade / local soil type (textural classification) @ every 500m and every change of feature whichever is earlier;
 - (vi) Horizontal curve; vertical curve
 - (vii) Road intersection type and details, at every occurrence;
 - (viii) Retaining structures and details, at every occurrence;
 - (ix) Location of water bodies (lakes and reservoirs), at every occurrence; and,
 - (x) Height of embankment or depth of cut @ every 200m and every change of feature whichever is earlier.
 - (xi) Land width i.e. ROW;
 - (xii) Culverts, bridges and other structures (type, size, span arrangement and location);
 - (xiii) Roadside arboriculture;
 - (xiv) Existing utility services on either side within ROW;
 - (xv) General drainage conditions
 - (xvi) Inventory of all road side facilities for the public including educational, health, communication facilities and road user based facilities such as tea shops, dhaba, vehicle service shops etc
- 8.6.2. The data should be collected in sufficient detail. The data should be compiled and presented in tabular as well as graphical form. The inventory data would be stored in computer files using simple utility packages, such as EXCEL.

8.7. Pavement Investigation

8.7.1. **Pavement Composition**

(i) The data concerning the pavement composition may be already available with the PWD. However, the consultants shall make trial pits to ascertain the pavement composition. The test pit interval will be as per Para 4 below.

- (ii) For each test pit, the following information shall be recorded:
 - a. Test pit reference (Identification number, location):
 - b. Pavement composition (material type and thickness); and
 - c. Subgrade type (textural classification) and condition (dry, wet)

8.7.2. Road and Pavement Condition Surveys

- (i) Detailed field studies shall be carried out to collect road and pavement surface conditions. The data should generally cover:
 - a. Pavement condition (surface distress type and extent);
 - b. Shoulder condition;
 - c. Embankment condition; and
 - d. Drainage condition
- (ii) Pavement
 - a. Cracking (narrow and wide cracking), % of pavement area affected;
 - b. Ravelling, % of pavement area affected;
 - c. Potholing, % of pavement area affected;
 - d. Edge break, length (m); and,
 - e. Rut depth, mm
- (iii) Shoulder
 - a. Paved: Same as for pavement
 - b. Upaved: material loss, rut depth and corrugation,
 - c. Edge drop, mm.
- (iv) Embankment
 - a. General condition; and
 - b. Extent of slope erosion
- (v) Drainage
 - a. General condition
 - b. Connectivity of drainage turnouts into the natural topography
 - c. Condition in cut sections
 - d. Condition at high embankments
 - 1. The objective of the road and pavement condition surveys shall be to identify defects and sections with similar characteristics. All defects shall be systematically referenced, recorded and quantified for the purpose of determining the mode of rehabilitation.
 - 2. The pavement condition surveys shall be carried out using visual means. Supplemented by actual measurements and in accordance with the widely accepted methodology (AASHTO, IRC, OECD, TRL and World Bank Publications) adapted to meet the study requirements. The measurement of rut depth would be made using standard straight edges.
 - 3. The shoulder and embankment conditions shall be evaluated by visual means and the existence of distress modes (cuts, erosion marks, failure, drops) and extent (none, moderate, frequent and very frequent) of such distress manifestations would be recorded.
 - 4. For sections with severe distresses, additional investigations as appropriate shall be carried out to determine the cause of such distresses.

5. Middle 200m could be considered as representative sample for each one km. of road and incase all other things are considered similar.

The data obtained from the condition surveys should be analysed and the road segments of more or less equal performance may be identified using the criteria given in IRC: 81-1997.

8.7.3. **Pavement Roughness**

The roughness surveys shall be carried out using Bump Integrator or similar instrument. The methodology for the surveys shall be as per the widely used standard practices. The calibration of the instrument shall be done as per the procedure given in the World Bank's Technical Publications and duly got authenticated by established laboratory/institution acceptable to the client.

- (i) The surveys shall be carried out along the outer wheel paths. The surveys shall cover a minimum of two runs along the wheel paths for each direction, as applicable for the configuration of individual subprojects.
- (ii) The results of the survey shall be expressed in terms of BI and IRI and shall be presented in tabular and graphical forms. The processed data shall be analysed using the cumulative difference approach to identify road segments homogenous with respect to surface roughness.

8.7.4. Pavement Structural Strength

- (i) The Consultants shall carry out structural strength surveys for existing two-lane pavements using Benkelman Beam Deflection technique in accordance with the CGRA procedure given in IRC:81-1997 ("Guidelines for Strengthening of Flexible Road Pavements Using Benkelman Beam Deflection Technique").
- (ii) It is suggested that the deflection surveys may be carried out as per the scheme given below:
 - 1. Mainline testing; and,
 - 2. Control section testing.
- (iii) The deflection tests for the mainline shall be carried out at every 500 m along the road sections covered under the study. The control section testing shall involve carrying out deflection testing for each 100 m long homogenous road segment along the road sections. The selection of homogenous segment shall be based on the data derived from pavement condition surveys. The total length of such homogenous segments shall not be less than 100 m per kilometre. The deflection measurements for the control section testing should be at an interval of not more than 10 m.
- (iv) Test pits shall be dug at every 500 m and also along each homogeneous road segment to obtain pavement composition details (pavement course, material type and thickness) so as to be able to study if a correlation exists between deflection and composition. If so, the relationship may be used while working out the overlay thickness for the existing pavement.
- (v) Benkelman Beam Deflection surveys may not be carried out for severely distressed sections of the road warranting reconstruction. The Consultants, immediately upon the award of the contract, shall submit to the Authority the scheme describing the testing schedule including the interval. The testing scheme shall be supported by data from detailed reconnaissance surveys.
- (vi) In case, the Consultants wish to use any acceptable method(s) other than Benkelman Beam deflection technique for the evaluation of pavement strength, details of such

methods or innovative features for deflection testing using Benkelman Beam technique along with the methodology for data analysis, interpretation and the use of such data for pavement overlay design purposes using IRC or any other widely used practices, such as AASHTO guidelines, should be got approved by the Authority. The sources of such methods should be properly referenced.

8.8. Sub-grade Characteristics and Strength

- 8.8.1. Based on the data derived from condition (surface condition, roughness) and structural strength surveys, the project road section should be divided into segments homogenous with respect to pavement condition and strength. The delineation of segments homogenous with respect to roughness and strength should be done using the cumulative difference approach (AASHTO, 1993).
- 8.8.2. The data on soil classification and mechanical characteristics for soils along the existing alignments may already be available with the PWD. The testing scheme for the widening of existing road within the ROW is, therefore, proposed that the Consultants shall test at least three sub-grade soil samples for each homogenous road segment or three samples for each soil type encountered, whichever is more.
- 8.8.3. The testing for subgrade soil shall include:
 - (i) In-situ density and moisture content at each test pit
 - (ii) Field CBR using DCP at each test pit
 - (iii) Characterisation (grain size and Atterberg limits) at each test pit and,
 - (iv) Laboratory moisture-density characteristics (modified AASHTO compaction);
 - (v) Laboratory CBR (unsoak and 4-day soak compacted at three energy levels) and swell.
- 8.8.4. For problematic soils, the testing shall be more rigorous. The characteristics with regard to permeability and consolidation shall also be determined for these soils. The frequency of sampling and testing of these soils shall be finalised in consultation with the Authority officers after the problematic soil types are identified along the road sections.

8.9. Investigations for Bridges and Structure

8.9.1. Inventory of Bridges, Culverts and Structures

The Consultants shall make an inventory of all the structures (bridges, ROBs, culverts, etc.) along the road under the project. The inventory for the bridges, and ROBs shall include the parameters required as per the guidelines of IRC-SP:35-1990. The inventory of culverts shall be presented in a tabular form covering relevant physical and hydraulic parameters

- **8.10.** Hydraulic and Hydrological Investigations
- 8.10.1. The Consultants shall collect information on high flood level (HFL), low water levels (LWL), discharge velocity etc. from available past records, local inquiries and visible signs, if any, on the structural components and embankments. Local inquiries shall also be made with regard to the road sections getting overtopped during heavy rains.
- 8.10.2. The Consultants shall make a desk study of available data on topography (topographic maps, stereoscopic aerial photography), storm duration, rainfall statistics, top soil characteristics, vegetation cover etc. so as to assess the catchment areas and hydraulic parameters for all existing and proposed drainage provisions. The findings of the desk study would be further supplemented and augmented by a reconnaissance along the area. All important hydrological features shall be noted during this field reconnaissance.

8.10.3. For bridges and cross drainage structures having inadequate waterway, history of overtopping and are proposed for reconstruction, the detailed hydrological and hydraulic studies shall be carried out in accordance with IRC Special Publication No. 13 ("Guidelines for the Design of Small Bridges and Culverts") and IRC:5-1998 ("Standard Specifications & Code of Practice for Road Bridges, Section I General Feature of Design").

8.11. Condition Surveys for Bridges, Culverts and Structures

- 8.11.1. The Consultants shall thoroughly inspect the existing structures and shall prepare a report about their condition including all the parameters given in the Inspection pro-forma of IRC-SP; 35-1990. The condition and structural assessment survey of the bridges / culverts / structures shall be carried out by senior experts of the Consultants.
- 8.11.2. For the bridges identified to be in a distressed condition based upon the visual condition survey, supplementary testing shall be carried out as per IRC-SP:35 and IRC-SP:40. Selection of tests may be made based on the specific requirement of the structure.

8.12. Geo-technical Investigations and Sub-Soil Exploration

8.12.1. The Consultants shall carry out geo-technical investigations and sub-surface explorations for the proposed new bridges / bridges proposed for reconstruction / Road over bridges/underpasses/ overpasses etc., along high embankments and any other location as necessary for proper design of the works and conduct all relevant laboratory and field tests on soil and rock samples. The minimum scope of geo-technical investigations for bridge and structures shall be as under:

S.N.	Description	Location of Boring
1.	Overall length = $6 - 30 \text{ m}$	One abutment location
2.	Overall length = $30 - 60 \text{ m}$	One abutment location and at least one
		intermediate location between abutments
		for structures having more than one span.
3.	Overall length >60 m	Each abutment and each pier locations.

- 8.12.2. The deviation(s), if any, by the Consultants from the scheme presented above should be approved by the Authority.
- 8.12.3. However, where a study of geo-technical reports and information available from adjacent crossings over the same waterway (existing highway and railway bridges) indicates that subsurface variability is such that boring at the suggested spacing will be insufficient to adequately define the conditions for design purposes, the Consultants shall review and finalise the bore hole locations in consultation with the Authority officers.
- 8.12.4. Sub-soil investigations will be done as per IRC 78-2000.
- 8.12.5. The scheme for the borings locations and the depth of boring shall be prepared by the Consultants and submitted to the Authority for approval. These may be finalised in consultation with the Authority.
- 8.12.6. deleted
- 8.12.7. The sub-soil exploration and testing should be carried out through the Geo-technical Consultants empanelled by the MORT&H. The soil testing reports shall be in the format prescribed in relevant IRC Codes.

8.13. Material Investigations

- 8.13.1. The Consultants shall identify sources (including use of fly-ash/ slag), quarry sites and borrow areas, undertake field and laboratory testing of the materials to determine their suitability for various components of the work and establish quality and quantity of various construction materials and recommend their use on the basis of techno-economic principles. The Consultants shall prepare mass haul diagram for haulage purposes giving quarry charts indicating the location of selected borrow areas, quarries and the respective estimated quantities.
- 8.13.2. It is to be ensured that no material shall be used from the right-of-way except by way of leveling the ground as required from the construction point of view, or for landscaping and planting of trees etc. or from the cutting of existing ground for obtaining the required formation levels.
- 8.13.3. Environmental restrictions, if any, and feasibility of availability of these sites to prospective civil works contractors, should be duly taken into account while selecting new quarry locations.
- 8.13.4. The Consultants shall make suitable recommendations regarding making good the borrow and quarry areas after the exploitation of materials for construction of works.
- 8.13.5. The Material Investigation aspect shall include preparation and testing of bituminous mixes for various layers and concrete mixes of different design mix grades using suitable materials (binders, aggregates, sand filler etc.) as identified during Material Investigation to conform to latest MORT&H specification.

8.14. Road Safety Audit

- 8.14.1. Road safety audit shall be carried out for each candidate subproject to identity areas of major concern, including black spots, and measures to be taken for improving detailed engineering design with respect to road safety. The audit should be in line with the MORTH's Road Safety Audit for Road Projects An Operational Toolkit. Sample checklists for road safety audit are at Supplement II.
- 8.14.2. The data on accident statistics should be compiled and reported showing accident type and frequency so that black spots are identified along the project road section. The possible causes (such as poor geometric features, pavement condition etc.) of accidents should be investigated into and suitable cost-effective remedial measures suggested for implementation.

9. Detailed Design of Road and Pavements, Bridges, and Structures

9.1. General

- 9.1.1. The Consultants are to carryout detailed designs and prepare detailed drawings including the following:
 - (i) Geometric design of highway with appropriate level of service;
 - (ii) Design of pavement for the widening and rehabilitation for the existing road, paved shoulders, medians, verge (if applicable)s;
 - (iii) Bridges, underpass / overpass / cattle pass /subways and structures including ROBs
 - (iv) At-grade intersections;

- (v) ROB for railway crossings as per the requirement and the standards of the Indian Railways; and,
- (vi) Alignment plans, longitudinal sections and cross-sections @ 50m intervals;
- (vii) Designs for road furniture and road safety/traffic control features;
- (viii) Designs and drawings for service road/ (provided no land acquisition is involved) tree planting/fencing at locations where necessary / required;
- (ix) Drainage design showing location of turnouts, out falling structures, separate drawings sheet for each 5 km. stretch;
- (x) Rehabilitation and repair plan with for bridges and structures design and drawings;
- (xi) Traffic amenities (Parking Areas, Weighing Station and Rest Areas, etc.);
- (xii) Other safety features.
- 9.1.2. Wherever feasible within the constraints of the available land, symmetrical widening of the existing carriageway shall be avoided and the required widening shall be achieved by widening along one side the existing road.

9.2. Design Standards

- 9.2.1. The Consultants shall evolve Design Standards and material specifications for the Study primarily based on IRC publications, MORTH Circulars and relevant recommendations of the international standards (American, Australian, British, Canadian, Japanese) if necessary
- 9.2.2. The Design Standards evolved for the project shall cover all aspects of detailed design including the design of geometric elements, pavement design, bridges and structures, traffic safety and materials

9.3. Geometric Design

- 9.3.1. Based on the data collected from reconnaissance and topographic surveys, the sections with geometric deficiencies, if any, should be identified and suitable measures for improvement should be suggested for implementation within the right of way.
- 9.3.2. The detailed design for geometric elements shall cover, but not be limited to the following major aspects:
 - (i) Horizontal alignment;
 - (ii) Longitudinal profile;
 - (iii) Cross-sectional elements;
 - (iv) Junctions; and
 - (v) Service roads.
- 9.3.3. The alignment design shall be verified for available sight distances as per the standard norms. The provision of appropriate markings and signs shall be made wherever the existing site conditions do not permit the adherence to the sight distance requirements as per the standard norms.
- 9.3.4. The consultant shall make detailed analysis of traffic flow and level of service for the existing road and workout the traffic flow capacity for the improved project road. The analysis should clearly establish the widening requirements with respect to the different horizon periods taking into account special problems such as road segments with isolated steep gradients.
- 9.3.5. In the case of closely spaced cross roads the Consultant shall examine different options to reduce conflicts and furnish appropriate proposals for this purpose keeping in view the cost of improvement, impact on traffic movement and accessibility to cross roads. The detailed

- drawings and cost estimate should include the provisions for realignments of the existing cross roads to allow such arrangements.
- 9.3.6. The Consultant shall also prepare design of underpasses / subways for large cross traffic of pedestrians and / or animals.
- 9.3.7. The Consultant shall also prepare details for intersections taking into account the site conditions, turning movement characteristics, level of service, overall economy and operational safety.

9.4. Pavement Design

- 9.4.1. The detailed design of pavement shall involve:
 - (i) Strengthening of existing road pavement and design of the new pavement for the widening / additional lane(s), if the findings of the traffic studies and life-cycle costing analysis confirm the requirement for widening or reconstruction of the road;
 - (ii) Design of shoulders
- 9.4.2. The design of pavement shall primarily be based on IRC publications. However, the Consultants shall use the recommendations given in widely used international practices including AASHTO, NAASRA, RTAC and TRL wherever necessary
- 9.4.3. The design of pavement shall be rigorous and shall make use of the latest Indian and International practices. The design alternatives and the most appropriate design, option shall be established on life-cycle costing and techno-economic consideration.
- 9.4.4. For the design of pavement, each set of design input shall be decided on the basis of rigorous testing and evaluation of its suitability and relevance in respect of in-service performance of the pavement. The design methodology shall accompany the design proposals and shall clearly bring out the basic assumptions, values of the various design inputs, rationale behind the selection of the design inputs and the criteria for checking and control during the implementation of works. In other words, the design of pavement structure should take due account of the type, characteristics of materials used in the respective courses, variability of their properties and also the reliability of traffic predictions. Furthermore, the methodology adopted for the design of pavement shall be complete with flow charts indicating the various steps in the design process, their interaction with one another and the input parameter required at each step.
- 9.4.5. For the design of overlays for the existing pavement, the strengthening requirement shall duly take into account the strength of the existing pavement vis-à-vis the remaining life. The overlay thickness requirements shall be worked out for each road segment homogenous with respect to condition, strength and sub-grade characteristics. The rehabilitation provisions should also include the provision of regulating layer. For existing pavement with acceptable levels of cracking, provision of a crack inhibiting layer should also be include.
- 9.4.6. Latest techniques of pavement design and rehabilitation like provision of geo-synthetics and cold/hot pavement recycling, use of modified bitumen etc. should be duly considered.
- 9.4.7. The pavement design task shall also cover working out the maintenance and strengthening requirements and periodicity and timing of such treatments. The maintenance requirements would be identified and evaluated for a period of 3 years after rehabilitation, together with the bill of quantities and the cost estimates and incorporated in the bid documents.

9.5. Design of Embankments

- 9.5.1. The embankments design should provide for maximum utilization of locally available materials consistent with economy. Use of fly ash wherever available within economical leads and technically feasible must be considered. In accordance with Government guidelines, use of flyash within 50kms from Thermal Power Stations is mandatory.
- 9.5.2. The Consultants shall carry out detailed analysis and design for all embankments of height greater that 6 m based on relevant IRC publications.
- 9.5.3. The design of embankments should include the requirements for protection works and traffic safety features.

9.6. Design of Bridges and Structures

- 9.6.1. The Consultant shall prepare General Arrangement Drawing (GAD) and Alignment Plan showing the salient features of the new bridges and structures proposed to be constructed / reconstructed along the road sections covered under the Study. These salient features such as alignment, overall length, span arrangement, cross section, deck level, founding level, type of bridge components (superstructure, substructure, foundations, bearings, expansion joint, return walls etc.) shall be finalized based upon hydraulic and geo-technical studies, cost effectiveness and ease of construction. The GAD shall be supplemented by Preliminary designs. In respect of span arrangement and type of bridge a few alternatives with cost-benefit implications should be submitted to enable the Authority to approve the best alternative.
- 9.6.2. The location of all at-grade level crossings shall be identified falling across the existing level crossings for providing ROB at these locations. The Consultants shall prepare preliminary GAD for necessary construction, reconstruction or widening separately to the Client. The Consultant shall assist the Authority in pursuing the Indian Railways Authorities or/and any statutory authority of State/Central Government for approval of the GAD from concerned Authorities.
- 9.6.3. Subsequent to the approval of the GAD and Alignment Plan by the Authority and Railways, the Consultant shall prepare detailed design as per IRC and Railways guidelines and detailed drawings for all components of the bridges and structures. The Consultant shall furnish the design and detailed drawings for suitable protection works and/or river training works wherever required.
- 9.6.4. The existing structures having inadequate carriageway width shall be widened/reconstructed in part or fully as per the latest MORT&H guidelines. The Consultant shall furnish the detailed design and working drawings for carrying out the above improvements.
- 9.6.5. Suitable repair / rehabilitation measures shall be suggested in respect of the existing structures as per IRC-SP:40 along with their specifications, drawings and cost estimate in the form of a report. The rehabilitation or reconstruction of the structures shall be suggested based on broad guidelines for rehabilitation and strengthening of existing bridges contained in IRC-SP:35 and IRC-SP:40.
- 9.6.6. Subsequent to the approval of the GAD and the alignment plan by the Authority, detailed design shall also be carried out for the proposed underpasses, overpasses and subways.
- 9.6.7. The Consultants shall also carry out the design and make suitable recommendations for protection works for bridges and drainage structures, wherever required./ found inadequate.

9.6.8. In case land available is not adequate for embankment slope, suitable design for RCC retaining wall shall be furnished. However, RE wall may also be considered depending upon techno-economic suitability to be approved by the Authority.

9.7. Drainage System

- 9.7.1. The requirement of roadside drainage system and the integration of the same with proposed cross-drainage system shall be worked out for the entire length of the project road section.
- 9.7.2. In addition to the roadside drainage system, the Consultants shall design the special drainage provisions for sections with super-elevated carriageways, high embankments and for road segments passing through cuts. The drainage provisions shall also be worked out for road segments passing through urban areas.
- 9.7.3. The designed drainage system should show locations of turnouts/outfall points with details of outfall structures fitting into natural contours. A separate drawing sheet covering every 5 km. stretch of road shall be prepared.

9.8. Traffic Safety Features, Road Furniture and Road Markings

9.8.1. The Consultants shall design suitable traffic safety features and road furniture including traffic signals, signs, markings, overhead sign boards, crash barriers, delineators etc. The locations of these features shall be given in the reports and also shown in the drawings.

9.9. Arboriculture and Landscaping

9.9.1. The Consultants shall work out appropriate plan for planting of trees (specifying type of plantation), horticulture, floriculture on the surplus land of the right-of-way with a view to beautify the highway and making the environment along the highway pleasing. The existing trees / plants shall be retained to the extent possible.

9.10. Bus Parking, Truck Laybyes, Weighing Station, Parking Areas and Rest Areas

9.10.1. The consultant shall suggest suitable sites for Bus Parking, Truck Laybyes weighing stations, parking areas and rest areas and prepare suitable separate designs in this regard. The common facilities like petrol pump, first-aid medical facilities, police office, restaurant, vehicle parking etc. should be included in the general layout for planning.

9.11. Miscellaneous Works

9.11.1. The Consultants shall prepare detailed plan for the traffic management and safety during the construction period.

10. Environment and Social Impact Study

10.1. The consultant shall under take the detailed environmental, social and poverty impact studies in accordance with the standard set by the Government of India and MORTH including Environmental Assessment Guidelines (2003) of including MORTH, as may be amended from time to time.

10.2. Environmental Impact

10.2.1. Environment impact study including initial environment examination (IEE) be carried out in accordance with MORTH's Environmental Assessment Guidelines (2003) as amended from time to time / Government of India /state Guidelines, as applicable

- 10.2.2. The consultant should carry out the preliminary environmental screening to assess the direct and induced impacts due to the project.
- 10.2.3. The consultant shall assess and document baseline conditions relevant to the project with the objective to establish the benchmarks.
- 10.2.4. The consultant shall assess the potential positive and negative significant impacts due to the project and identify the cost effective mitigative measures to address these impacts adequately in the Environmental Monitoring and Management Plan (EMMP).
- 10.2.5. The consultant shall do the analysis of alternatives incorporating environmental concerns and the associated costs in the economic analysis. This should include with and without scenario and modification incorporated in the proposed project due to environment considerations.
- 10.2.6. The consultant shall give special attention to the environmental enhancement measures in the project for the following:
 - (i) Cultural property enhancement along the highways;
 - (ii) Bus bays and bus shelters including a review of their location;
 - (iii) Highway side landscape and enhancement of the road junctions;
 - (iv) Enhancement of highway side water bodies, and
 - (v) Redevelopment of the borrow areas located on public land.
- 10.2.7. The IEE report including an EMMP will be prepared with adequate public consultation and the recommendations arising thereon.
- 10.2.8. All mitigation measures are identified in the IEE and EMMP should be incorporated in the subproject design so that they are carried out during construction, operation and maintenance in consultation with the stakeholders.
- 10.2.9. The consultant shall prepare the bill-of-quantities (BOQ) and technical specifications for all items of work on account of environmental enhancement measures in such a way that these may be readily integrated to the construction contracts.
- 10.2.10. The consultant shall establish a suitable monitoring network with regard to air, water and noise pollution. The consultant will also provide additional inputs in the areas of performance indicators and monitoring mechanisms for environmental components during construction and operational phase of the project.
- 10.2.11. The consultant shall provide the cost of mitigation measures and ensure that environmental related staffing, training and institutional requirements are budgeted in project cost.
- 10.2.12. The consultant shall prepare the application forms and obtain forestry and environmental clearances from the respective authorities including the SPCBs and the MOEF on behalf of the Authority. The consultants will make presentation, if required, in defending the project to the MOEF Infrastructure Committee.
- 10.2.13. The consultant shall identify and plan for plantation of the suitable trees along the existing highway in accordance with IRC guidelines.
- 10.2.14. The consultant shall assist in providing appropriate input in preparation of relevant environment and social sections.

11. Social and Poverty Impacts

- 11.1. The social and poverty analysis impact studies shall be carried out in accordance with Government of India policy and MORTH Guidelines. The social analysis study will, among other things, provide a socio-economic profile of the project area and address in particular, indigenous people, communicable disease particularly HIV/AIDS poverty alleviation, gender, local population, industry, agriculture, levels of poverty and unemployment, health, education, child labour, land acquisition and resettlement.
 - (i) The study will include all parameters required to be reviewed and evaluated in accordance with the selection criteria, evaluation and ranking procedures at Supplement I.
 - (ii) The consultant would prepare checklists for initial poverty and social assessment, involuntary resettlement and indigenous peoples development.
 - (iii) The consultant will minimize the involuntary resettlement and roads having insignificant resettlement impact (significance categories B & C) or no negative impact will be selected.
 - (iv) The consultant will prepare and carry out the initial poverty and social assessments with respect to the subprojects in accordance with the Handbook on Incorporating Social Dimensions and Handbook on Poverty and Social Analysis. If required, the resettlement plans, indigenous peoples development plans with respect to the subprojects shall be prepared and carried out in accordance with the Resettlement Framework And Indigenous Peoples Development Framework prepared for this Project and agreed between the State and MORTH, the relevant policies and guidelines of MORTH, in particular, Handbook on Resettlement -A Guide to Good Practice, Handbook on Incorporating Social Dimensions and Handbook on Poverty and Social Analysis.
 - (v) The consultant would conduct base line socio-economic and census survey to assess the impacts on the people, properties and loss of livelihood. The socio-economic survey will establish the benchmark for monitoring of R&R activities.
- 11.2. A social assessment would be conducted for the entire project to identify mechanisms to improve project designs to meet the needs of different stakeholders. A summary of stakeholders discussions, issue raised and how the project design was developed to meet stakeholders need would be prepared.
- 11.3. The Resettlement and Rehabilitation Plan would assess feasibility and effectiveness of income restoration strategies and suitability and availability to relocation sites. The resettlement plan which accounts for resettlement impacts would be based on a 25% socio-economic survey and 100 % census survey of project affected people which provides the complete assessment of the number of affected households and persons, including common property resources. All untitled occupants should be recorded at the initial stages so that identify cards can be issued to ensure there is no further influx of people into the project area. All consultants with affected persons (to include list of participants) should be fully documented and records made available to the Authority.
 - (i) Assessment on the impact of the project on the poor and vulnerable groups along the project road corridor.
 - (ii) Based on the identified impacts, developing entitlement matrix for the project affected people.
 - (iii) Assessment on social issues such as indigenous people, gender, HIV/AIDS, labours including child labour.
 - (iv) Implementation budgets, sources and timing of funding and schedule of tasks.
 - (v) Responsibility of tasks, institutional arrangements and personnel for delivering entitlement and plans to build institutional capacity.

- (vi) Internal and external Monitoring plans, key monitoring indicators and grievance redress mechanism.
- (vii) Incorporating any other suggestions of the MORTH and the Authority, till the acceptance of the reports by the MORTH/ the Authority, as applicable.
- **11.4.** The relevant resettlement plans should be updated and modified to incorporate changes, if any, that may be necessitated by the detailed engineering designs prepared for the Subprojects in accordance with the requirements specified in Supplement I.
- 11.5. The consultant shall incorporate in the bid document the following requirements for compliance during implementation of the subproject:
 - (i) Civil works contractors employed under the Project undertakes appropriate health and safety programs to, amongst others, disseminate information to the construction workers on human immunodeficiency virus/acquired immunodeficiency syndrome and preventive measures;
 - (ii) Civil works contractors complies with all applicable labor laws of India and the State Government, and does not employ child labor for construction and maintenance activities;
 - (iii) Employment targets, as acceptable, are set for women in road construction activities;
 - (iv) Civil works contractors does not differentiate between wages of men and women workers for work of equal value; and
 - (v) Appropriate child-care facilities are provided at or around the construction campsites.

12. Reporting Requirements of Environment Impact

- **12.1.** The consultant would prepare the stand-alone reports including the IEE and EMMP as per the requirement of the MORTH/ the Authority, as applicable, with contents as per the following:
 - (i) Executive Summary
 - (ii) Description of the Project
 - (iii) Environmental setting of the project
 - (iv) Identification and categorization of the potential impacts (during pre-construction, construction and operation periods)
 - (v) Analysis of alternatives (this would include correlation amongst the finally selected alternative alignment/routing and designs with the avoidance and environmental management solutions)
 - (vi) The public consultation process
 - (vii) Typical plan or specific designs for all additional environmental items as described in the scope of work
 - (viii) Incorporating any other as per the suggestions of the MORTH/GoC, till the acceptance of the reports by the MORTH/ GoC, as applicable
- **12.2.** EMMP (Environment Monitoring and Management Plan) Reports for Each Contract Package based on uniform methodology and processes. The consultant will also ensure that the EMMP has all the elements for it to be a legal document. The EMMP reports would include the following:
 - (i) Brief description of the project, purpose of the EMMP, commitments on incorporating environmental considerations in the design, construction and operations phases of the project and institutional arrangements for implementing the EMP.
 - (ii) A detailed EMMP for construction and operational phases with recourse to the mitigation measures for all adverse impacts.
 - (iii) Detailed plans for highway-side tree plantation (as part of the compensatory afforestation component).

- (iv) Environmental enhancement measures would be incorporated. Enhancement measures would include items described in the scope of work and shall be complete with plans, designs, BOQ and technical specifications.
- (v) Environmental monitoring plans during and after construction including scaling and measurement techniques for the performance indicators selected for monitoring.
- (vi) The EMP should be amendable to be included in the contract documents for the works.
- (vii) Incorporating any other as per the suggestions of the MORTH and the Authority, till the acceptance of the reports by the MORTH/ the Authority, as applicable.

13. Reporting requirements for social and poverty impacts

- **13.1.** The reports to be prepared by the consultant would cover the following:
 - (i) Checklists for initial poverty and social assessment, involuntary resettlement and indigenous people's development.
 - (ii) Initial poverty and social assessments with respect to the subprojects in accordance with the Handbook on Incorporating Social Dimensions and Handbook on Poverty and Social Analysis. If required, the resettlement plans, indigenous peoples development plans with respect to the subprojects in accordance with the resettlement framework and indigenous peoples development framework prepared for this Project and agreed between the State and MORTH, the relevant policies and guidelines of ADS, in particular, Handbook on Resettlement -A Guide to Good Practice, Handbook on Incorporating Social Dimensions and Handbook on Poverty and Social Analysis.
- **13.2.** The report on resettlement impacts would include the following:
 - (i) Executive Summary
 - (ii) Description of Project
 - (iii) Objectives of the project.
 - (iv) The need for Resettlement in the Project and evaluation of measures to minimize resettlement.
 - (v) Description and results of public consultation and plans for continued participation of PAPs.
 - (vi) Definition of PAPs and the eligibility criteria.
 - (vii) Census and survey results-number affected, how are they affected and what impacts will they experience.
 - (viii) Legal and entitlement policy framework-support principles for different categories of impact.
 - (ix) Arrangements for monitoring and evaluation (internal and external)
 - (x) Implementation schedule for resettlement which is linked to the civil works contract
 - (xi) A matrix of scheduled activities to indicate clearly what steps and actions will be taken at different stages and the time frame
 - (xii) The payment of compensation and resettlement during the acquisition process
 - (xiii) An itemized budget (replacement value for all assets) and unit costs for different assets

14. Estimation of Quantities and Project Costs

14.1. The Consultants shall prepare detailed estimates for quantities (considering designs and mass haul diagram) and project cost for the entire project (civil packages wise), including the cost of environmental and social safeguards proposed based on MORTH's Standard Data Book /State SSR and market rate for the inputs or the local schedule of rates. The estimation of quantities shall be based on detailed design of various components of the projects. The estimation of quantities and costs would have to be worked out separately for each civil work Package as defined in this TOR.

- **14.2.** The Consultants shall make detailed analysis for computing the unit rates for the different items of works. The unit rate analysis shall duly take into account the various inputs and their basic rates, suggested location of plants and respective lead distances for mechanized construction. The unit rate for each item of works shall be worked out in terms of manpower, machinery and materials.
- **14.3.** The project cost estimates so prepared are to be checked against rates for similar on-going works in India

15. Economic Analysis

- **15.1.** The candidate subproject should be divided into the traffic homogenous links based on the findings of the traffic studies. The homogenous links of the candidate subproject should be further subdivided into sections based on physical features of road and pavement, sub-grade and drainage characteristics etc. The economic analysis shall be carried out separately for each traffic homogenous link as well as for the subproject.
- **15.2.** The values of input parameters and the rationale for their selection for the economic analyses shall be clearly brought out.
- **15.3.** For models to be used for the economic analyses, the calibration methodology and the basic parameters adapted to the local conditions shall be clearly brought out.
- **15.4.** The economic study should bring out the priority of the different homogenous links in terms of project implementation.
- **15.5.** The Consultants shall carry out economic analysis for the candidate subproject in accordance with the MORTH guidelines for Economic Analysis of Projects. The analysis should be for each of the sections covered under this TOR. The benefit and cost streams should be worked out for the project using HDM-IV or other internationally recognized life-cycle costing model.
- **15.6.** The economic analysis shall cover but be not limited to be following aspects:
 - (i) Assess the capacity of existing roads and the effects of capacity constraints on vehicle operating costs (VOC);
 - (ii) Calculate VOCs for the existing road situation and those for the project;
 - (iii) Quantify all economic benefits, including those from reduced congestion, travel distance, road maintenance cost savings and reduced incidence of road accidents; and,
 - (iv) Estimate the economic internal rate of return (EIRR) for the project over a 200-year period after construction/rehabilitation. In calculating the EIRRs, identify the tradable and non-tradable components of projects costs and the border price value of the tradable components;
 - (v) Saving in time value.
- **15.7.** Economic Internal Rate of Return (EIRR) and Net Present Value (NPV) should be worked out based on these cost-benefit streams. Furthermore, sensitivity of EIRR and NPV worked out for the different scenarios as given under:

Scenario - I	Base Costs and Base Benefits
Scenario - II	Base Costs plus 20% and Base Benefits
Scenario – III	Base Costs and Base Benefits minus 20%
Scenario - IV	Drop in traffic growth rates by 50%
Scenario - V	No generated traffic benefits

Scenario - VI Two-year project implementation delay

Scenario - VII Less than optimal road maintenance such as delay or omission of

periodic maintenance

Scenario - VIII Base Costs plus 20% and Base Benefits minus 20%

15.8. The sensitivity scenarios given above are only indicative. The Consultants shall select the sensitivity scenarios taking into account possible construction delays, construction costs overrun, traffic volume, revenue shortfalls, operating costs, exchange rate variations, convertibility of foreign exchange, interest rate volatility, non-compliance or default by contractors, political risks and force majeure.

15.9. The economic analysis shall take into account all on-going and future road and transport infrastructure projects and future development plans in the project area.

The Consultant shall submit the following deliverables as part of the DPR(s)

- I. Design report- RoW, utility corridor, ITMS and other ancillary components of the project as finalised during the DPR stage
- II. Materials report
- III. Cost estimates
- IV. Rate analysis
- V. Detailed drawings
- VI. Social Assessment Report including Resettlement Plan

Typical team composition for preparation of DPR(s)

S. No	Staff Position	
1.	Team Leader cum Senior Highway Engineer	
2.	Highway Design Engineer	
3.	Pavement Specialist	
4.	Senior Bridge/Structural Design Engineer	
5.	Traffic & Transportation Expert	
6.	Financial Expert	
7.	Transport Economist	
8.	Senior Survey Engineer	
9.	Safety and Security Expert	
10.	Environmental Expert	
11.	Social and R&R expert	
12.	HTMS/ Toll Expert	
13.	Hydraulic Engineer	
14.	Utility Expert	
15.	Horticulture Expert	
16.	HDD Mapping Expert	

The Consultant shall be required to involve the following team for delivery of required DPR(s)

TIMELINES and PAYMENT SCHEDULE

A. Timelines

Overall duration of the project shall be 30 months with following indicative break up.

Module 1	Module 2	Module 3 and Module 5	
		Module 4	
Pre-Feasibility stage and project preparatory work	Techno-commercial feasibility assessment and Detailed Project Report (DPR)	Procurement of contractor/ concessionaire and independent engineers	Construction and project implementation
		Financial structuring and fund raising	
2 months	3 months	9 months*	22 months**

^{*}Module 4 shall be carried out in parallel with module 3

As the entire stretch of Hyderabad RRR will be developed in multiple packages, some of the activities will run in parallel depending on progress of each package.

The PSO Consultant will submit monthly and quarterly progress reports. Additionally, the PSO Consultant will also prepare and submit working documents, management presentations, MIS reports, milestone dashboard updates, marketing collaterals, as and when needed.

The PSO Consultant is required to provide its comments on the reports submitted by authority's engineers within 15 days from the date of submissions. Monthly reports will be produced by the eighth day of each subsequent month which would cover the various details carried out during the month and the targets proposed for next month/ milestone.

B. Payment Schedule

The Consultant shall be paid for each module as per the respective deliverable structure mentioned for each module in TOR. The fee allocation for each module shall be as follows:

Module	Timelines	% payment allocation of Lumpsum fee quoted in Form 2 of Appendix II
Module - 1: Vision and Alignment Fixation	2 months	10%
Module - 2: TEFR and DPR and RDMIS	MIS 3 months 40%	
Module - 3: Procurement Support	3 months	10/0
Module - 4: Financial structuring and fund raising	6 months	Performance linked
Module - 5: Support in Project implementation	22 months	50%

The above fee allocation shall be applicable for delivering the scope of work as per the given timelines and as per the team composition aligned for each module.

Additionally:

1. The Consultant shall be responsible for successful completion of the underlined scope of work as defined in Schedule 1-TOR. However, the Consultant shall be liable for additional payments, over and above the allocated share of the quoted lumpsum fee, in case the Authority requests for any additional scope of work (not envisaged in the TOR)

^{**} Module 5 shall be carried out in parallel with module 4

- 2. The additional scope of work and thereafter provision of extension of timelines, and deployment of additional resources for any module shall be discussed on mutually agreed terms between the Authority and the Consultant.
- 3. The Consultant shall commence work on a Module only upon approval of the Client of the previous module.
- 4. The Consultant shall be responsible for 2 sets of iterations/ modifications per deliverable. Any further changes shall be discussed with Authority for assessing the provision of time and resource allocation

Payment for Module 1

S.N.	Key Deliverable Module 1 (T= module start date)	Payment % for the specific Module
1	Submission of Project vision and concept report	15%
2	Completion of Initial survey and submission of alignment report	15%
3	Finalization of funding mechanism	15%
4	Submission of Implementation strategy	15%
5	Presentation and finalization of Vision and Concept note	10%
	Sub-total 1 (Module 1)	70%
6	Monthly Progress reports (T+31, T+61)	15% for each report
	Sub-total 2 (Module 1)	30%
7	Total (Module 1)	100%

Payment for Module 2 and 3

S.N.	Key Deliverable Module 2 and 3 (T= module start date)	Payment % for the specific Module
	Techno-commercial viability report and project structuring	
1	Inception Report on methodology for collation of key deliverables in a standardized manner	2.50%
2	Preparation of standard templates for techno-commercial feasibility report	2.50%
3	Preparation of monitoring dashboard showcasing progress land acquisition process through a PMIS tool	5.00%
4	Submission of Corridor monetization plan 5.0	
5	Submission of the Bankable Techno Commercial Feasibility Report for the entire project	5.00%
6	Submission of economic growth plan including identified priority sectors and players	5.00%
7	Submission of final recommendations on project implementation strategy report on phasing, packaging, financing and project risk management based on EPC/ PPP mode	5.00%
8	Submission of final business plan and implementation strategy	10.00%
	Detailed project report and tender documentation	

9	Preparation of DPR/ final detailed feasibility report templates based on the final project implementation strategy (PPP/EPC)	2.50%	
10	Submission of working drawings of required structures 2.50%		
11	Submission of Detailed cost estimate	5.00%	
12	Submission of Social and Environmental Assessment	5.00%	
13	Submission of draft DPR	10.00%	
14	Submission of DPR and project appreciation document with final detailed project cost estimates 2.50%		
15	Finalisation of Tender Document for selection of contractors/ developers/ Authority Engineer etc.	2.50%	
	Sub-total 1 (Module 2 and 3)	70%	
	Project Management and Monitoring Support		
16	Monthly Progress reports (T+31, T+61, T+91, T+121, T+151, T+181)	5% for each report	
	Sub-total 2 (Module 2 and 3)	30%	
	Total (Module 2 and 3)	100%	

Payment for Module 4

The following additional Performance linked payment shall be made for Fund raising activities under Module 4:

S.N.	Amount of fund raised	Performance liked payment as % to fund raised
1	Up to Rs. 1,000 Cr.	0.30%
2	Rs. 1,001 Cr. to Rs. 5,000 Cr.	Rs. 3 Cr. + 0.20% of the amount raised above and over Rs. 1,000 Cr.
3	Rs. 5,001 Cr. to Rs. 10,000 Cr.	Rs. 11 Cr. + 0.10% of the amount raised above and over Rs. 5,000 Cr.
4	Rs. 10,001 Cr. to Rs. 15,000 Cr.	Rs. 16 Cr. + 0.075% of the amount raised above and over Rs. 10,000 Cr.
5	Rs. 15,0001 Cr. and above	Rs. 19.75 Cr. + 0.025% of the amount raised above and over Rs. 15,000 Cr.

The amount of fund raised shall be considered for cumulative amount for the project. The performance linked amount shall be paid within 15 days of successful disbursement of the fund.

Payment for Module 5

S. N.	Key Deliverable Module 4 (T= module start date)	Payment % for the specific Module		
1	Monthly Progress reports at the end of proposed 22 months	4.55% report	for	each
	Total (Module 5)	100%		

3. DELIVERABLES

In pursuance of this TOR, the Consultant shall undertake/deliver the following deliverables (the "**Deliverables**") during the course of this Consultancy. Each deliverable shall include an executive summary, analyses, assumptions, results of computations, tables, charts, recommendations, and such other contents that generally comprise deliverables for similar consultancy work by way of best practices. 1 hard copy and 1 soft copies of all the Reports mentioned in the ToR

4. Team Composition (Core team members)

Sr. No	Position	Educational Qualification	Total number of years of experience	Professional experience
1	Team Leader cum Project planning and Management Expert	Graduate in Civil Engineering and Master's in Project Management/ MBA Finance or equivalent	Atleast 15 years	Should have worked as Team Leader for at least 2 eligible assignments and should have experience of working on large scale capital management projects. Experience in Roads and Highways sector will be preferred
2	Sr. Highway Design cum Pavement Expert	Master's in Civil Engineering or equivalent from a reputed institute	Atleast 15 years	Should have worked as Team Leader/ Senior Design Engineer or equivalent for at least 2 road and highways projects of 50 Km each for monitoring and supervision during construction and/or O&M period. Experience of working on greenfield expressway/ 4 lane highway projects will be preferred
3	Financial cum Fund Raising Experts	MBA in Finance or equivalent	Atleast 10 years	Should have worked as Financial Expert for at least 2 eligible assignments. Experience of fund raising and financial management of road sector projects shall be preferred
4	Land Monetization Expert	Master's in Planning or equivalent/ Business Administration/ Real estate management	Atleast 10 years	Should have experience of large scale real estate projects, including handling large land monetization deals International experience in relevant field shall be preferred
5	Urban & Regional Planner/ Node Development Expert	Bachelor's in Architecture, Master's in Urban/ Regional Planning or equivalent	Atleast 15 Years	Should have worked on economic development corridors or similar nature. Experience in international economic corridor projects and domestic/ international greenfield expressway projects shall be preferred
6	IT/dashboarding Expert	Bachelor's in IT/ Computer Science and Master's in relevant field	Atleast 10 years	Should have experience of monitoring IT implementation projects and MIS activities Experience of preparing project dashboards for large scale assignments shall be preferred

The bidder shall furnish the curriculum vitae of the above-mentioned core team members as per the formats defined in the Appendices of the Technical Proposal. The experience and

knowledge of the core team members shall be evaluated as part of the approach & methodology to assess the adequacy of the delivery team. The bidder shall also furnish a well-defined staffing and team organogram (core team members, support staff, subject matter experts etc) planned for the effective delivery of the assignment as per the defined activity modules.

SCHEDULE-2

Guidance Note on Conflict of Interest (for Consultant)

- 1. This Note further explains and illustrates the provisions of Clause 2.3 of the RFP and shall be read together therewith in dealing with specific cases.
- Consultants should be deemed to be in a conflict of interest situation if it can be reasonably
 concluded that their position in a business or their personal interest could improperly influence
 their judgment in the exercise of their duties. The process for selection of consultants should
 avoid both actual and perceived conflict of interest.
- 3. Conflict of interest may arise between the Authority and a consultant or between consultants and present or future concessionaries/ contractors. Some of the situations that would involve conflict of interest are identified below:
 - (a) Authority and consultants:
 - (i) Potential consultant should not be privy to information from the Authority which is not available to others.
 - (ii) Potential consultant should not have defined the project when earlier working for the Authority.
 - (iii) Potential consultant should not have recently worked for the Authority overseeing the project.
 - (b) Consultants and concessionaires/contractors:
 - (i) No consultant should have an ownership interest or a continuing business interest or an on-going relationship with a potential concessionaire/ contractor save and except relationships restricted to project-specific and short-term assignments.
 - (ii) No consultant should be involved in owning or operating entities resulting from the project.
 - (iii) No consultant should bid for works arising from the project.

The participation of companies that may be involved as investors or consumers and officials of the Authority who have current or recent connections to the companies involved, therefore, needs to be avoided.

- 4. The normal way to identify conflicts of interest is through self-declaration by consultants. Where a conflict exists, which has not been declared, competing companies are likely to bring this to the notice of the Authority. All conflicts must be declared as and when the consultants become aware of them.
- 5. Another approach towards avoiding a conflict of interest is through the use of "Ethical walls" to avoid the flow of commercially sensitive information from one part of the consultant's company to another. This could help overcome the problem of availability of limited numbers of

experts for the project. However, in reality effective operation of "Ethical walls" may be a difficult proposition. As a general rule, larger companies will be more capable of adopting Ethical walls approach than smaller companies. Although, "Ethical walls" have been relatively common for many years, they are an increasingly discredited means of avoiding conflicts of interest and should be considered with caution. As a rule, "Ethical walls" should be considered as unacceptable and may be accepted only in exceptional cases upon full disclosure by a consultant coupled with provision of safeguards to the satisfaction of the Authority.

- 6. Another way to avoid conflicts of interest is through the appropriate grouping of tasks. For example, conflicts may arise if consultants drawing up the terms of reference or the proposed documentation are also eligible for the consequent assignment or project.
- 7. Another form of conflict of interest called "scope-creep" arises when consultants advocate either an unnecessary broadening of the terms of reference or make recommendations which are not in the best interests of the Authority but which will generate further work for the consultants. Some forms of contractual arrangements are more likely to lead to scope-creep. For example, lump-sum contracts provide fewer incentives for this, while time and material contracts provide built in incentives for consultants to extend the length of their assignment.
- 8. Every project contains potential conflicts of interest. Consultants should not only avoid any conflict of interest, they should report any present/ potential conflict of interest to the Authority at the earliest. Officials of the Authority involved in development of a project shall be responsible for identifying and resolving any conflicts of interest. It should be ensured that safeguards are in place to preserve fair and open competition and measures should be taken to eliminate any conflict of interest arising at any stage in the process.

APPENDIX-I

(See Clause 2.1.3)

TECHNICAL PROPOSAL Form-1 Letter of Proposal

(On Applicant's letter head)

(Date and Reference)

To,
The Engineer -in-Chief (R&B)
Govt. of Telangana
Hyderabad
India

Sub: Project Consultant for DPR Preparation, PMU and Technical, Financial and Transaction Advisory for the development of Hyderabad Regional Ring Road (Southern Part)

Dear Sir,

With reference to your RFP Document dated, I/We, having examined all relevant documents and understood their contents, hereby submit our Proposal for selection as Consultant (the "Consultant") for Appointment of Project Consultant for DPR Preparation, PMU and Technical, Financial and Transaction Advisory for the development of Hyderabad Regional Ring Road (Southern Part).

- 2. I/We acknowledge that the Authority will be relying on the information provided in the Proposal and the documents accompanying the Proposal for selection of the Consultant, and we certify that all information provided in the Proposal and in the Appendices is true and correct, nothing has been omitted which renders such information misleading; and all documents accompanying such Proposal are true copies of their respective originals.
- 3. This statement is made for the express purpose of appointment as the Consultant for the aforesaid Project.
- 4. I/We shall make available to the Authority any additional information it may deem necessary or require for supplementing or authenticating the Proposal.
- 5. I/We acknowledge the right of the Authority to reject our application without assigning any

reason or otherwise and hereby waive our right to challenge the same on any account whatsoever.

6. I/We certify that in the last three years, we or any of our Associates have neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial authority or a judicial pronouncement or arbitration award against the Applicant.

7. I/We declare that:

- (a) I/We have examined and have no reservations to the RFP Documents, including any Addendum issued by the Authority;
- (b) I/We do not have any conflict of interest in accordance with Clause 2.3 of the RFP Document;
- (c) I/We have not directly or indirectly or through an agent engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as defined in Clause 4.3 of the RFP document, in respect of any tender or request for proposal issued by or any agreement entered into with the Authority or any other public sector enterprise or any government, Central or State; and
- (d) I/We hereby certify that we have taken steps to ensure that in conformity with the provisions of Section 4 of the RFP, no person acting for us or on our behalf will engage in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice.
- 8. I/We understand that you may cancel the Selection Process at any time and that you are neither bound to accept any Proposal that you may receive nor to select the Consultant, without incurring any liability to the Applicants in accordance with Clause 2.8 of the RFP document.

9. Deleted

- 10. I/We certify that in regard to matters other than security and integrity of the country, we or any of our Associates have not been convicted by a Court of Law or indicted or adverse orders passed by a regulatory authority which would cast a doubt on our ability to undertake the Consultancy for the Project or which relates to a grave offence that outrages the moral sense of the community.
- 11. I/We further certify that in regard to matters relating to security and integrity of the country, we have not been charge-sheeted by any agency of the Government or convicted by a Court of Law for any offence committed by us or by any of our Associates.
- 12. I/We hereby irrevocably waive any right or remedy which we may have at any stage at law or howsoever otherwise arising to challenge or question any decision taken by the Authority [and/or the Government of India] in connection with the selection of Consultant or in connection with the Selection Process itself in respect of the above mentioned Project.
- 13. I/We agree and understand that the proposal is subject to the provisions of the RFP document. In no case, shall I/we have any claim or right of whatsoever nature if the Consultancy for the Project is not awarded to me/us or our proposal is not opened or rejected.
- 14. I/We agree to keep this offer valid for 120 (One Hundred Twenty) days from the PDD specified in the RFP.
- 15. A Power of Attorney in favour of the authorised signatory to sign and submit this Proposal and

documents is attached herewith in Form 4.

- 16. In the event of my/our firm being selected as the Consultant, I/we agree to enter into an Agreement in accordance with the form at Schedule–2 of the RFP. We agree not to seek any changes in the aforesaid form and agree to abide by the same.
- 17. In the event of my/our firm being selected as the Consultant, I/we agree and undertake to provide the services of Experts in accordance with the provisions of the RFP.
- 18. I/We have studied RFP and all other documents carefully. We understand that except to the extent as expressly set forth in the Agreement, we shall have no claim, right or title arising out of any documents or information provided to us by the Authority or in respect of any matter arising out of or concerning or relating to the Selection Process including the award of Consultancy.
- 19. The Financial Proposal is being submitted in a separate cover. This Technical Proposal read with the Financial Proposal shall constitute the Application which shall be binding on us.
- 20. I/We agree and undertake to abide by all the terms and conditions of the RFP Document.

In witness thereof, I/we submit this Proposal under and in accordance with the terms of the RFP Document.

Yours faithfully,

(Signature, name and designation of the authorised signatory) (Name and seal of the Applicant)

APPENDIX-I Form-2 Particulars of the Applicant

1.1	Title of Consultancy: Project Consultant for DPR Preparation, PMU and Technical, Financial and Transaction Advisory for the development of Hyderabad Regional Ring Road (Southern Part).
1.2	Title of Project: Development of Hyderabad Regional Ring Road (Southern Part)
1.3	State whether applying as Sole Firm of Member of the Consortium:
1.4	State the following: Name of Firm: Legal status (e.g. sole proprietorship or partnership): Country of incorporation: Registered address: Year of Incorporation: Year of commencement of business: Principal place of business: Name, designation, address and phone numbers of authorised signatory of the Applicant: Name: Designation: Company: Address: Phone No.: Fax No.: E-mail address:
	Signature, name and designation of the authorised signatory) For and on behalf of

APPENDIX-I <u>Form-3</u> Statement of Legal Capacity

(To be forwarded on the letter head of the Applicant)

APPENDIX-I Form-4 Power of Attorney

Know all men by these presents, We, (name of Firm and address of the
registered office) do hereby constitute, nominate, appoint and authorise
Mr/Msson/daughter/wife and presently residing at, who i
presently employed with/ retained by us and holding the position of as our true and lawfu
attorney (hereinafter referred to as the "Authorised Representative") to do in our name and on ou
behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to
submission of our Proposal for Project Consultant for DPR Preparation, PMU and Technical
Financial and Transaction Advisory for the development of Hyderabad Regional Ring Road
(Southern Part) including but not limited to signing and submission of all applications, proposals and
other documents and writings, participating in pre-bid and other conferences and providing information
responses to the Authority, representing us in all matters before the Authority, signing and execution of all
contracts and undertakings consequent to acceptance of our proposal and generally dealing with the
Authority in all matters in connection with or relating to or arising out of our Proposal for the said Projec
and/or upon award thereof to us till the entering into of the Agreement with the Authority.
AND, we do hereby agree to ratify and confirm all acts, deeds and things lawfully done or caused to be done
by our said Authorised Representative pursuant to and in exercise of the powers conferred by this Power of
Attorney and that all acts, deeds and things done by our said Authorised Representative in exercise of the
powers hereby conferred shall and shall always be deemed to have been done by us.
F
IN WITNESS WHEREOF WE, THE ABOVE NAMED PRINCIPAL HAVE
EXECUTED THIS POWER OF ATTORNEY ON THIS DAY OF, 20**
For
(Signature, name, designation and address)
Witnesses:
1
2
Notarised Accepted
(Signature name designation and address of the Attamax)
(Signature, name, designation and address of the Attorney)

APPENDIX-I <u>Form-5</u> Financial Capacity of the Applicant

(Refer Clause 3.2.)

S. No.	Financial Year	Annual Turnover from Consultancy and Professional Fee (Rs.)					
1.	1.						
2.							
3.							
This is to certi	Certificate from the Statutory Auditor\$ This is to certify that						
Date:	(Signature,	name and designation of the authorised signatory) Name and seal of the audit firm:					

In case the Applicant does not have a statutory auditor, it shall provide the certificate from its chartered accountant that ordinarily audits the annual accounts of the Applicant.

Roads and Buildings Department, Government of Telangana				

APPENDIX-I

Form-6 Particulars of Key Personnel

Sl. No.	Designation of Key Personnel	Name	Educational Qualification	Length of Professional Experience
(1)	(2)	(3)	(4)	(5)
1.				
2.				
3.				

APPENDIX-I Form-7

Abstract of Eligible Assignments of the $Applicant^{\#}$

(Refer Clause 2.2.2 and 3.2)

S.No	Name of Project	Name of Client	Estimated capital cost of Project (in Rs. crore)	Professional fees received by the Applicant (in Rs. crore)
(1)*	(2)	(3)	(4)	(5)
1				
2				
3				
4				
5				

[#] The Applicant should provide details of only those assignments that have been undertaken by it under its own name.

APPENDIX-I Form-8 **Deleted**

APPENDIX-I Form-9 Eligible Assignments of Applicant

(Refer Clause 3.2)

Name of Client	Name of the Project:	Project particulars:	Estimated capital cost of Project (in Rs crore):	Payment received by the Applicant as professional fees (in Rs. crore):	Start Date and end Date

APPENDIX-I Form-10 Curriculum Vitae (CV) of Professional Personnel

- 1. Proposed Position:
- 2. Name of Personnel:
- 3. Date of Birth:
- **4.** Nationality:
- **5.** Educational Qualifications:
- **6.** Employment Record:

(Starting with present position, list in reverse order every employment held.)

APPENDIX-II

FINANCIAL PROPOSAL

Form-1 Covering Letter

(On Applicant's letter head)

(Date and Reference) To The Engineer -in-Chief (R&B) Govt. of Telangana Hyderabad India
Dear Sir,
Subject: Project Consultant for DPR Preparation, PMU and Technical, Financial and Transaction Advisory for the development of Hyderabad Regional Ring Road (Southern Part)
I/We,
I/We agree that this offer shall remain valid for a period of 120 (one hundred and twenty) days from the Proposal Due Date or such further period as may be mutually agreed upon.
Yours faithfully,
(Signature, name and designation of the authorised signatory)
Note: The Financial Proposal is to be submitted strictly as per forms given in the RFP.

APPENDIX-II (See Clause 2.1.3)

Form-2

Financial Proposal

Sl. No.	Description	Amount (In INR)
1	Total Consultancy Fee (Financial proposal)	Rs/-
		In words (Rupees)
2	Applicable Service Taxes if any incl GST	
	TOTAL(1+2) amount in Rs.	

Note:

- 1. Total Consultancy Fee shall be evaluated for the purpose of financial score.
- 2. In case of any discrepancy in the Quoted amount in figures and words, amount quoted in words will be prevailed.

Form-2.1

$Form\hbox{-}2.1-M1$

Sl. No	Key Personnel	Man-month inputs	Man – month Rates	Amount in Rs
1	Team Leader cum Project Planning and Management Expert	2		
2	Highway Design Expert	2		
3	Land Acquisition Expert	2		
4	Environment Expert	2		
5	Financial cum Fund Raising Expert	2		
6	ITMS Expert	2		
7	Land Monetization Expert	2		
8	Urban & Regional Planner/ Node development expert	2		
9	IT/ dashboarding Expert	2		
10		2		
11	Utility Expert	2		
12	PMU Experts (2 nos)- <i>l</i> dashboarding expert, <i>l</i> financial and economic expert	4		
13	Support staff and subject matter experts (2 nos)- 1 communication & branding expert, 1 junior civil engineer	4		
	Total	30		

Form-2.1 - M2 and M3

Sl. No	Key Personnel	Man-month inputs	Man – month Rates	Amount in Rs.
1	Team Leader cum Project Planning and Management Expert	6		
2	Highway Design cum Pavement Expert	6		
3	Sr. Quantity Surveyor	6		
4	Environment Expert	6		
5	Sr. Structural and Bridge Design Expert	6		
6	ITMS Expert	6		
7	Procurement Expert	6		
8	Urban & Regional Planner- Node Development Expert	6		
9	IT/ dashboarding Expert	6		
10	Social Expert	6		
11	Land Monetization Expert	6		
12	Engineering Expert (1 No.s) – CADD Expert PMU Experts (3 nos)- 1 dashboarding expert, 2 financial experts, 1 market outreach expert	24		
13	Support staff and subject matter experts (4 nos)- 1 communication & branding expert, 1 junior engineer, 2 BPM experts	24		
	Total	114		

 $Form \hbox{-} 2.1-M4$

Sl. No	Key Personnel	Man-month inputs	Man- month Rates	Amount Rs.
1	Team Leader cum Finance Expert	06		
2	Procurement Expert	06		
3	Debt structuring expert	06		
4	Legal Expert	06		
5	IT/ dashboarding Expert	06		
6	PMU Experts (5 nos)- 3 dashboarding expert, 2 financial experts	30		
	Total	60		

Form - 2.1 - M5

Sl. No	Key Personnel	Man-month inputs	Man – month Rates	Amount in Rs.
1	Team Leader cum Project Planning and Management Expert	22		
2	Highway Design Expert	22		
3	Procurement Expert	22		
4	Environment Expert	22		
5	Financial cum Fund Raising Expert	22		
6	ITMS Expert	22		
7	Contract Management Expert	22		
8	Urban and Regional Planner	22		
9	IT/ dashboarding Expert	22		
10	Social Expert	22		
11	Land Monetization Expert	22		
12	PMU Experts (5 nos)- 3 dashboarding expert, 1 engineering expert, 1 financial and economic expert	110		
13	Support staff and subject matter experts (5 nos)- 1 communication & branding expert, 2 site engineers, 2 Contract management experts/ investment promotion experts	110		
	Total	462		

Project Consultant	for DPR Preparation derabad Regional Riv	n, PMU and Tech	nical, Financial	and Transactio	n Advisory for the	Page 99

Roads and Buildings Department, Government of Telangana

APPENDIX III

BANK GUARANTEE FORMAT FOR BID SECURITY

To
The Managing Director,
TGRDC,
Hyderabad

B.G. No.Dated:

- In consideration of you, the Project Director, PIU, Hyderabad RRR (Southern Part), 1. Govt of Telangana having its office at 7th Floor, (R&B) Building, Errummanzil, Hyderabad-500082, Telangana (hereinafter referred to as the "Authority", which expression shall unless it be repugnant to the subject or context thereof include its, successors and assigns) having agreed to receive the Proposal of company registered under the laws of) and having its registered office at.....(hereinafter referred to as the "Applicant" which expression shall unless it be repugnant to the subject or context thereof include its executors, administrators, successors and permitted assigns), for Project Consultant for DPR Preparation, PMU and Technical, Financial and Transaction Advisory for the development of Hyderabad Regional Ring Road (Southern Part) pursuant to the RFP Document No....... dated , we [insert the name of the Bank], having our registered office at and one of its branches at (hereinafter referred to as the "Bank"), at the request of the Applicant, do hereby in terms of Clause 2.7 of the RFP document, irrevocably, unconditionally and without reservation guarantee the due and faithful fulfillment and compliance of the terms and conditions of the Proposal, including the RFP Document by the said Applicant and unconditionally and irrevocably undertake to pay forthwith to the Authority an amount of Rs. 25,00,000 (Rupees Twenty Five Lakh Only) (hereinafterreferred to as the "Guarantee") as our primary obligation without any de-mur, reservation, recourse, contest or protest and without reference to the Applicant if the Applicant shall at any time fail to fulfill or comply with all or any of the terms and conditions contained in the said RFP or the Proposal.
- 2. Any such written demand made by the Authority stating that the Applicant is in default or breach of the due and faithful fulfillment and compliance with the terms and conditions contained in the RFP or the Proposal submitted by it shall be final, conclusive and binding on the Bank.
- 3. We, the Bank, do hereby unconditionally undertake to pay the amounts due and payable under this Guarantee without any demur, reservation, recourse, contest or protest and without any reference to the Applicantor any other person and irrespective of whether the claim of the Authority is disputed by the Applicant or not, merely on the first demand

from the Authority stating that the amount claimed is due to the Authority by reason of failure of the Applicant to fulfill and comply with the terms and conditions contained in the RFP or the Proposal submitted by it including failure of the said Applicant to keep its Proposal valid during the Proposal validity period as set forth in the said Proposal for any reason whatsoever. Any such demand made on the Bank shall be conclusive as regards amount due and payable by the Bank under this Guarantee.

- 4. This Guarantee shall be irrevocable and remain in full force for a **period of 120 (one hundred and twenty days)** from the Proposal Due Date or for such extended period as may be mutually agreed between the Authority and the Applicant, and agreed to by the Bank, and shall continue to be enforceable till all amounts under this Guarantee have been paid.
- 5. We, the Bank, further agree that the Authority shall be the sole judge to decide as to whether the Applicant is in default of due and faithful fulfillment and compliance with the terms and conditions contained in the RFP or the Proposal submitted by it and the decision of the Authority that the Applicant is in default as aforesaid shall be final and binding on us, not- withstanding any differences between the Authority and the Applicant or any dispute pending before any Court, Tribunal, Arbitrator or any other Authority.
- 6. The Guarantee shall not be affected by any change in the constitution or winding up of the Applicant or the Bank or any absorption, merger or amalgamation of the Applicant or the Bank with any other person.
- 7. In order to give full effect to this Guarantee, the Authority shall be entitled to treat the Bank as the principal debtor. The Authority shall have the fullest liberty without affecting in any way the liability of the Bank underthis Guarantee at any time and from time to time to vary any of the terms and conditions contained in the said RFP or to extend time for submission of the Proposal or the Proposal validity period or the period for fulfillmentand compliance with all or any of the terms and conditions contained in the said RFP or the Proposal submitted by it or to postpone for any time and from time to time any of the powers exercisable by it against the said Applicant and either to enforce or forbear from enforcing any of the terms and conditions contained in the said RFP or the Proposal, and the Bank shall not be released from its liability 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 said Applicant or any other forbearance, act or omission on the part of the Authority or any indul- gence by the Authority to the said Applicant or by any change in the con-stitution of the Authority or its absorption, merger or amalgamation with any other person or any other matter or

thing whatsoever which under the law relating to sureties would but for this provision have the effect of releasing the Bank from its such liability.

- 8. Any notice by way of request, demand or otherwise hereunder shall be sufficiently given or made if addressed to the Bank and sent by courier orby registered mail to the Bank at the address set forth herein.
- 9. We undertake to make the payment on receipt of your notice of claim onus addressed to [name of Bank along with branch address] and deliveredat our above branch which shall be deemed to have been duly authorized to receive the said notice of claim.
- 10. It shall not be necessary for the Authority to proceed against the said Applicant before proceeding against the Bank and the guarantee herein contained shall be enforceable against the Bank, notwithstanding any other security which the Authority may have obtained from the said Applicantor any other person and which shall, at the time when proceedings are taken against the Bank hereunder, be outstanding or unrealized.
- 11. We, the Bank, further undertake not to revoke this Guarantee during its currency except with the previous express consent of the Authority in writing.
- 12. The Bank declares that it has power to issue this Guarantee and dischargethe obligations contemplated herein, the undersigned is duly authorized and has full power to execute this Guarantee for and on behalf of the Bank.
- 13. For the avoidance of doubt, the Bank's liability under this Guarantee shall be restricted to Rs 25,00,000 (Rupees Twenty Five Lakh Only).

Signed and Delivered by	Bank	
By the hand of Mr./Ms	, its	and authorised
official.		

(Signature of the Authorised Signatory)

(Official Seal)

APPENDIX IV - DRAFT CONTRACT AGREEMENT

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III. SPECIAL CONDITIONS OF CONTRACT

- 1. General
- 2. Documents
- 3. Foreclosure

IV. APPENDICES

Appendix A: Terms of reference containing, inter- alia, the

Description of the Services and Reporting Requirements

Appendix B:

Consultants' Sub consultants, Key Personnel and Sub-

Professional

Personnel, Task assignment, work programme, manning schedule, qualification requirements of key personnel,

schedule for submission of various report.

Appendix C: Hours of work for Consultants' Personnel Appendix D: Duties of the Authority Appendix E: Cost

Estimate

Appendix F: Minutes of Financial/ Contract Negotiations with the

Consultant

Appendix G: Copy of letter of invitation Appendix H: Copy of letter of acceptance Appendix I(1): Format for Bank Guarantee for Performance Security for individual work Appendix I(2): Format for Bank Guarantee for Performance Security for a number of

works Appendix J: Minutes of the Pre-bid meeting

DRAFT CONTRACT FOR CONSULTANTS' SERVICES

'Project Consultant for DPR Preparation, PMU and Technical, Financial and Transaction Advisory for the development of Hyderabad Regional Ring Road (Southern Part) in the State of Telangana'

This Contract (hereinafter called the "Contract") is made on the -------day of the month of ---------2024, between, on the one hand, Project Director, PIU, Hyderabad RRR (Southern Part), Govt of Telangana, (hereinafter called the "Authority") and, on the other hand, M/s ------- (hereinafter called the "Consultant").

WHEREAS

- (A) The Authority has requested the Consultants to provide certain consulting services as defined in the General Conditions attached to this Contract (hereinafter called the "Services");
- (B) The Consultants, having represented to the Authority that they have the required professional skills, personnel and technical resources, have agreed to provide the Services on the terms and conditions set forth in this Contract:

NOW THEREFORE the parties hereto hereby agree as follows:

- 1. The following documents attached hereto shall be deemed to form an integral part of this Contract:
 - (a) The General Conditions of Contract (hereinafter called "GCC");
 - (b) The Special Conditions of contract (hereinafter called "SCC");
 - (c) Contract Agreement
 - (d) The Letter of Acceptance (LOA)/ Notice to proceed with work (work order)
 - (e) Correspondence during negotiations
 - (f) Addendum/ Common Set of Deviations (CSD), issued by Authority and correspondence
 - (g) Bid document
 - (h) The following Appendices:
- **Appendix A:** Terms of reference containing, inter-alia, the Description of the Services and Reporting Requirements
- **Appendix B:** Consultants' Sub consultants, Key Personnel and Sub Professional Personnel, Task assignment, work programme, manning schedule, qualification requirements of key personnel, schedule for submission of various report.
- **Appendix C:** Hours of work for Consultants' Personnel
- **Appendix D:** Duties of the Authority
- **Appendix E:** Cost Estimate
- **Appendix F:** Minutes of Financial/ Contract Negotiations with the Consultant
- **Appendix G:** Copy of letter of invitation
- **Appendix H:** Copy of letter of acceptance
- Appendix I: Copy of Bank Guarantee for Performance Security
- Appendix-J: Minutes of the pre-bid meeting
- 2. The mutual rights and obligations of the Authority and the Consultants shall be as set forth in the Contract; in particular:
 - a. The Consultants shall carry out the Services in accordance with the provisions of the Contract; and
 - b. The Authority shall such make payments to the Consultants in accordance with the provisions of the Contract as may become payable under provisions of the Agreement at the times and in the manner prescribed by the agreement.
- 3. Professional Indemnity

In case of gross negligence and willful misconduct on the part of the Consultant or on the part of any person or firm acting on behalf of the Consultant in carrying out the services, the Consultant with respect to the damage caused by the Consultant to the Authority's property, shall be liable to the Authority for any direct or consequential loss or damage to the extent as below:

- a) The total payments for professional fee made or expected to be paid to the Consultant hereunder
- b) The proceeds the Consultant may be entitled to receive from any insurance maintained by the Consultant to cover such a liability whichever of (a) or (b) is higher

This limitation of liability shall not affect the Consultant's liability, if any, for damage to third parties caused by the Consultant or any person or firm of the Consultant acting on behalf of the Consultant in carrying out the services.

4. Word and expressions shall have the same meaning as are respectively assigned to them in the bid document.

IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be signed in their respective names as of the day and year first above written.

Witness

Address

(Authority)	Signature Name Address
BY (Authorised Representative)	Witness Signature Name Address
FOR AND ON BEHALF OF (Consultant)	Witness Signature Name

FOR AND ON BEHALF OF

BY Witness
(Authorised Representative) Signature
Name
Address

GENERAL CONDITIONS OF CONTRACT

1. GENERAL PROVISIONS

1.1 Definitions

Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:

- (a) "Applicable Law" means the laws and any other instruments having the force of law in the Government's country as they may be issued and in force from time to time;
- (b) "Contract" means the Contract signed by the Parties, to which these General Conditions of Contract are attached, together with all the documents listed in Clause 1 of such signed Contract;
- (c) **"Effective Date"** means the date on which this Contract comes into force and effect pursuant to Clause 2.1 of the GCC;
- (d) "Foreign Currency" means any currency other than the currency of the Government;
- (e) "GCC" means these General Conditions of Contract;
- (f) "Government" means the Government of India;
- (g) "Local Currency" means the currency of the Government;
- (h) "Member", in case the Consultants consist of a consortium of more than one entity means any of these entities, and "Members" means all of these entities;
- (i) "Personnel" means persons hired by the Consultants or by any Sub consultant as employees and assigned to the performance of the Services or any part thereof; "foreign Personnel" means such persons who at the time of being so hired had their domicile outside India; and "local Personnel" means such persons who at the time of being so hired had their domicile inside India;
- (j) "Party" means the Authority or the Consultants, as the case may be, and Parties means both of them:
- (k) "Services" means the work to be performed by the Consultants pursuant to this Contract for the purposes of the Project, as described in Appendix A hereto;
- (l) "SCC" means the Special Conditions of Contract by which these General Conditions of Contract may be amended or supplemented;
- (m) "Sub consultant" means any entity to which the Consultants subcontract any part of the Services in accordance with the provisions of Clause 3.7 of the GCC; and

(n) "Third Party" means any person or entity other than the Government, the Authority, the Consultants or a sub consultant.

1.2 Relation between the Parties

Nothing contained herein shall be construed as establishing a relation of master and servant or of agent and principal as between the Authority and the Consultants. The Consultants, subject to this Contract, have complete charge of Personnel performing the services and shall be fully responsible for the Services performed by them or on their behalf hereunder.

1.3 Governing Law and Jurisdiction

This Contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Applicable Laws of India and the Courts at Mumbai shall have exclusive jurisdiction over matters arising out of or relating to this Agreement.

1.4 Language

This Contract has been executed in the language specified in the SCC, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract.

1.5 Table of Contents and Headings

The table of contents, headings or sub-headings in this agreement are for convenience for reference only and shall not be used in, and shall not limit, alter or affect the construction and interpretation of this Contract.

1.6 Notices

- 1.6.1 Any notice, request or consent required or permitted to be given or made pursuant to this Contract shall be in writing. Any such notice, request or consent shall be deemed to have been given or made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent by registered mail, facsimile or e-mail to such Party at the address specified in the SCC.
- **1.6.2** Notice will be deemed to be effective as specified in the SCC.
- **1.6.3** A party may change its address for notice hereunder by giving the other Party notice of such change pursuant to the provisions listed in the SCC with respect to Clause 1.6.2 of the GCC.

1.7 Location

The Services shall be performed at such locations as are specified in **Letter of Acceptance** (**Appendix-I**) hereto and, where the location of a particular task is not so specified, at such locations, whether in India or elsewhere, as the Authority may approve.

1.8 Authority of Member in Charge

In case the Consultants consist of a consortium of more than one entity, with or without an Associate the Members hereby authorize the entity specified in the SCC to act on their behalf in

exercising all the Consultants' rights and obligations towards the Authority under this Contract, including without limitation the receiving of instructions and payments from the Authority.

1.9 Authorized Representatives

Any action required or permitted to be taken, and any document required or permitted to be executed, under this Contract by the Authority or the Consultants may be taken or executed by the officials specified in the SCC.

1.10 Taxes and Duties

Unless otherwise specified in the SCC, the Consultants shall pay all such taxes, duties, fees and other impositions as may be levied under the Applicable Law, including expenses for registration of the Agreement

2. COMMENCEMENT, COMPLETION, MODIFICATION AND TERMINATION OF CONTRACT

2.1 Effectiveness of Contract

This Contract shall come into force and effect on the date of the Authority's notice to the Consultants instructing the Consultants to begin carrying out the Services. This notice shall confirm that the effectiveness conditions, if any, listed in the SCC have been met.

2.2 Termination of Contract for Failure to Become Effective

If this Contract has not become effective within such time period after the date of the Contract signed by the Parties as shall be specified in the SCC, either Party may, by not less than four (4) weeks' 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.

2.3 Commencement of Services

The Consultants shall begin carrying out the Services at the end of such time period after the Effective Date as shall be specified in the SCC.

2.4 Expiration of Contract

Unless terminated earlier pursuant to Clause 2.9 of the GCC hereof, this Contract shall expire when services have been completed and all payments have been made at the end of such time period after the Effective Date as shall be specified in the SCC.

2.5 Entire Agreement

This Contract contains all covenants, stipulations and provisions agreed by the Parties. No agent or representative of either Party has authority to make, and the Parties shall not be bound by or be liable for, any statement, representation, promise or agreement not set forth herein. This contract constitutes the entire agreement between the parties hereto with respect to the subject matter as of the

date hereof and supersedes all prior understanding, representations, proposals, discussions and negotiations whatsoever, whether oral or written, between the parties.

2.6 Modification

Modification of the terms and conditions of this Contract, including any modification of the scope of the Services, may only be made by written agreement between the Parties. Pursuant to Clause 7.2 of the GCC hereof, however, each party shall give due consideration to any proposals for modification made by the other Party.

2.7 Force Majeure

2.7.1 Definition

For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Party, and which makes a Party's performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible in the circumstances, and includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood or other adverse weather conditions, strikes, lockouts or other industrial action (except where such strikes, lockouts or other industrial action are within the power of the Party invoking Force Majeure to prevent), confiscation or any other action by government agencies.

- a) Force Majeure shall not include (i) any event which is caused by the negligence or intentional action of a Party or such Party's Sub consultants or agents or employees, nor (ii) any event which a diligent Party could reasonably have been expected to both take into account at the time of the conclusion of this Contract and avoid or overcome in the carrying out of its obligations hereunder.
- b) Force Majeure shall not include insufficiency of funds or failure to make any payment required hereunder.

2.7.2 No Breach of Contract

The failure of a Party to fulfill any of its obligations hereunder shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event has taken all reasonable precautions, due care and reasonable alternative measures, all with the objective of carrying out the terms and conditions of this Contract.

2.7.3 Measures to be Taken

- (a) A party affected by an event of Force Majeure shall take all reasonable measures
- (b) to remove such Party's inability to fulfill its obligations hereunder with a minimum of delay.
- (c) A party affected by an event of Force Majeure shall notify the other Party of such

event as soon as possible, and in any event not later than fourteen (14) days following the occurrence of such event, providing evidence of the nature and cause of such event, and shall similarly give notice of the restoration of normal conditions as soon as possible.

(d) The Parties shall take all reasonable measures to minimize the consequences of any event of Force Majeure.

2.7.4 Extension of Time

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.

2.7.5 Payments

During the period of their inability to perform the Services as a result of an event of Force Majeure, the Consultants shall be entitled to be reimbursed for additional costs reasonably and necessarily incurred by them during such period for the purposes of the Services and in reactivating the Services after the end of such period.

2.7.6 Consultation

Not later than thirty (30) days after the Consultants, as the result of an event of Force Majeure, have become unable to perform a material portion of the Services, the Parties shall consult with each other with a view to agreeing on appropriate measures to be taken in the circumstances.

2.8 Suspension

The Authority may, by written notice of suspension to the Consultants, suspend all payments to the Consultants hereunder if the Consultants fail to perform any of their obligations under this Contract, including the carrying out of the Services, provided that such notice of suspension (i) shall specify the nature of the failure, and (ii) shall request the Consultants to remedy such failure within a period not exceeding thirty (30) days after receipt by the Consultants of such notice of suspension.

2.9 Termination

2.9.1 By the Authority

The Authority may at any time, with or without reason, terminate this Contract and shall compensate the Consultant for the services satisfactorily rendered up to the date of termination. The Authority may terminate this Contract by not less than thirty (30) days' written notice of termination to the Consultants. The Authority, after the occurrence of any of the events specified herein below terminate this Contract:

(a) if the Consultants fail to remedy a failure in the performance of their obligations hereunder, as specified in a notice of suspension pursuant to Clause 2.8 hereinabove,

- within thirty (30) days of receipt of such notice of suspension or within such further period as the Authority may have subsequently approved in writing;
- (b) If the Consultants become (or, if the Consultants consist of more than one entity, if any of their Members becomes) insolvent or bankrupt or enter into any agreements with their creditors for relief of debt or take advantage of any law for the benefit of debtors or go into liquidation or receivership whether compulsory or voluntary;
- (c) If the Consultants submit to the Authority a statement which has a material effect on the rights, obligations or interests of the Authority and which the Consultants know to be false:
- (d) If, as the result of Force Majeure, the Consultants are unable to perform a material portion of the Services for a period of not less than sixty (60) days; or
- (e) If the Authority, in its sole discretion and for any reason whatsoever, decides to terminate this Contract.

2.9.2 Cessation of Rights and Obligations

Upon termination of this Contract pursuant to Clauses 2.2 or 2.9 hereof, or upon expiration of this Contract pursuant to Clause 2.4 hereof, or upon foreclosure of this Contract pursuant to clause 3 of SCC, 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 set forth in Clause 3.3 hereof, (iii) the Consultant's obligation to permit inspection, copying and auditing of their accounts and records set forth in Clause 3.6 (ii) hereof, and (iv) any right which a Party may have under the Applicable Law.

2.9.3 Cessation of Services

Upon termination of this Contract by notice of either Party to the other pursuant to Clause 2.9.1 hereof, the Consultants 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. With respect to documents prepared by the Consultants and equipment and materials furnished by the Authority, the Consultants shall proceed as provided, respectively, by Clauses 3.9 or 3.10 hereof.

2.9.4 Payment upon Termination

Upon termination of this Contract pursuant to Clause 2.9.1 hereof, the Authority shall make the following payments to the Consultants (after offsetting against these payments any amount that may be due from the Consultant to the Authority):

- (i) remuneration pursuant to Clause 6 hereof for Services satisfactorily performed prior to the effective date of termination.
- (ii) reimbursable expenditures pursuant to Clause 6 hereof for expenditures actually incurred

prior to the effective date of termination; and

2.9.5 Disputes about Events of Termination

If either Party disputes whether an event specified in paragraphs (a) to (e) of Clause 2.9.1 hereof has occurred, such Party may, within forty- five (45) days after receipt of notice of termination from Authority, refer the matter to The Managing Director, TGRDC, Hyderabad pursuant to Clause 9 hereof, and this Contract shall not be terminated on account of such event except in accordance with the terms of any resulting arbitral award.

3. OBLIGATIONS OF THE CONSULTANTS

3.1 General

i) Standard of Performance

The Consultants shall perform the Services and carry out their obligations here under with all due diligence, efficiency and economy, in accordance with generally accepted professional techniques and practices, and shall observe sound management practices, and employ appropriate advanced technology and safe and effective equipment, machinery, materials and methods. The Consultants shall always act, in respect of any matter relating to this Contract or to the Services, as faithful advisers to the Authority, and shall at all times support and safeguard the Authority's legitimate interests in any dealings with Sub consultants or Third Parties.

ii) Law Governing Services

The Consultants shall perform the Services in accordance with the Applicable Law and shall take all practicable steps to ensure that any Sub consultants, as well as the Personnel and agents of the Consultants and any Sub consultants, comply with the Applicable Law. The Authority shall advise the Consultants in writing of relevant local customs and the Consultants shall, after such notifications, respect such customs.

3.2 Conflict of Interests

i) Consultants not to Benefit from Commissions, Discounts, etc.

The remuneration of the Consultants pursuant to Clause 6 hereof shall constitute the Consultants' sole remuneration in connection with this Contract or the Services and the Consultants shall not accept for their own benefit any trade commission, discount or similar payment in connection with activities pursuant to this Contract or to the Services or in the Discharge of their obligations hereunder, and the Consultants shall use their best efforts to ensure that any Sub consultants, as well as the Personnel and agents of either of them, similarly shall not receive any such additional remuneration.

ii) Consultants and Affiliates not to be otherwise interested in Project

The Consultants agree that, during the term of this Contract and after its termination, the Consultants and any entity affiliated with the Consultants, as well as any Sub consultant and

any entity affiliated with such Sub consultant, shall be disqualified from providing goods, works or services (other than the Services and any continuation thereof) for any project resulting from or closely related to the Services.

iii) Prohibition of Conflicting Activities

Neither the Consultants nor their Sub consultants nor the Personnel of either of them shall engage, either directly or indirectly, in any of the following activities:

- a) during the term of this Contract, any business or professional activities in the Government's country which would conflict with the activities assigned to them under this Contract; or
- b) after the termination of this Contract, such other activities as may be specified in the SCC.

3.3 Confidentiality

The Consultants, their Sub consultants and the Personnel of either of them shall not, either during the term or within two (2) years after the expiration of this Contract,

disclose any proprietary or confidential information relation to the Project, the Services, this Contract or the Authority's business or operations without the prior written consent of the Authority.

3.4 Liability of the Consultants

Subject to additional provisions, if any, set forth in the SCC, the Consultants' liability under this Contract shall be as provided by the Applicable Law.

3.5 Insurance to be taken out by the Consultants

The Consultants (i) shall procure and maintain at all times it performs any portion of the Contract, and shall cause any sub-consultants to take out and maintain, at their (or the Sub consultants', as the case may be) own cost but on terms and conditions approved by the Authority, insurance against the risks, and for the coverage, as shall be specified in the Special Conditions of Contract (SCC), and (ii) at the Authority's request, shall provide evidence to the Authority showing that such insurance has been taken out and maintained and that the current premiums therefore have been paid. The Consultant shall maintain the following insurance with minimum limits equal to the amount indicated below:

Type of Coverage	Minimum
	Requirement
Commercial general Liability Insurance, including bodily	
injury, personal injury, property damage, advertising injury and	
medical payments:	
-Each Occurrence	
-General Aggregate	
Automobile Liability Insurance- Any Auto	
-Each Occurrence	

-General Aggregate	
Professional Liability	
Workers Compensation	
Employer's Liability	

i) Commercial General Liability and Automobile Liability Insurance

Commercial General Liability Insurance and any automobile Liability Insurance that shall protect the Consultant, the Authority from any claims of physical/bodily injury, property damage, personal injury, death and any medical payments arising from performing any portion of the Services.

ii) Workers' Compensation and Employers' Liability Insurance

Compensation Insurance and Employers' Liability Insurance for all of its employees performing any portion of the Services. In accordance with the provisions of the Workmen's Compensation Act, 1923, the Consultant shall be required to secure workers' compensation coverage for all its employees.

iii) Professional Liability (Errors and Omissions)

Professional Liability Insurance as appropriate to the Consultant's profession, coverage to continue through completion of construction period.

iv) Proof of Carriage of Insurance

The Consultant shall not commence performing any portion of the Services until all required insurance has been obtained and certificates indicating the required coverage have been delivered in duplicate to the Authority and approved by the Authority. Certificates and insurance policies shall include the following:

- (1) A clause stating that this insurance policy shall not be cancelled or reduced in required limits of liability or amounts of insurance until notice has been mailed the Authority stating the date of cancellation or reduction. Date of cancellation or reduction shall not be less than thirty (30) days after date of mailing notice.
- (2) The insurance policy should state in particular those insured, extent of insurance, location and operation to which insurance applies, expiration date, to whom cancellation and reduction notice will be sent, and length of notice period.

v) Acceptability of Insurance

Insurance is to be placed with a reputed insurance company, which has been approved by the Authority.

3.6 Accounting, Inspection and Auditing

The Consultants (i) shall keep accurate and systematic accounts and records in respect of the Services hereunder, in accordance with internationally accepted accounting principles and in such form and detail as will clearly identify all relevant time charges and cost, and the bases thereof (including the bases of the Consultants' costs and charges), and (ii) shall permit the Authority or

its designated representative periodically, and up to one year from the expiration or termination of this Contact, to inspect the same and make copies thereof as well as to have them audited by auditors appointed by the Authority.

3.7 Indemnification

The Consultant shall defend, indemnify, and hold harmless the Authority, its agents, representatives, officers, employees etc. (the "indemnified parties") from any and all claims arising out of, pertaining to, or relating to the negligence, recklessness, or willful misconduct of the Contractor.

3.8 Consultants' Actions requiring Authority's prior Approval

The Consultants shall obtain the Authority's prior approval in writing before taking any of the following actions:

- (a) appointing such members of the Personnel as are listed in Appendix B;
- (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 Authority 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;
- (c) any other action that may be specified in the SCC.

3.9 Reporting Obligations

The Consultants shall submit to the Authority the reports and documents specified in **Appendix A/E** hereto, in the form, in the numbers and within the time periods set forth in the said Appendix.

3.10 Documents prepared by the Consultants to be the Property of the Authority

All plans, drawings, specifications, designs, reports and other documents prepared by the Consultants in performing the Services shall become and remain the property of the Authority, and the Consultants shall, not later than upon termination or expiration of this Contract, deliver all such documents to the Authority, together with a detailed inventory thereof. The Consultants may retain a copy of such documents. Restrictions about the future use of these documents, shall be as specified in the SCC.

3.11 Equipment and Materials furnished by the Authority

Equipment and materials made available to the Consultants by the Authority, or purchased by the Consultants with funds provided by the Authority, shall be the property of the Authority and shall be marked accordingly. Upon termination or expiration of this Contract, the Consultants shall make available to the Authority an inventory of such equipment and materials and shall dispose of such equipment and materials in accordance with the Authority's instructions. While in possession of such equipment and materials, the Consultants, unless otherwise instructed by the Authority in

writing, shall insure them in an amount equal to their full replacement value.

4. CONSULTANTS' PERSONNEL

4.1 General

The Consultants shall employ and provide such qualified and experienced Personnel as are required to carry out the Services.

4.2 Description of Personnel

- (a) The titles, agreed job descriptions, minimum qualification and estimated periods of engagement in the carrying out of the Services of each of the Consultants' Key Professional / Sub Professional Personnel are described in Appendix B.
- **(b)** If required to comply with the provisions of Clause 3.1.1 of this Contract, adjustments with respect to the estimated periods of engagement of Key Professional / Sub Professional Personnel set forth in Appendix B may be made by the Consultants by written notice to the Authority, provided
 - that such adjustments shall not alter the originally estimated period of engagement of any individual by more than 10% or one week, whichever is larger, and
 - that the aggregate of such adjustments shall not cause payments under this Contract to exceed the ceilings set forth in Clause 6.1 (b) of this Contract. Any other such adjustments shall only be made with the Authority's written approval.
 - If additional work is required beyond the scope of the Services specified in Appendix A, the estimated periods of engagement of Key Personnel set forth in Appendix B may be increased by agreement in writing between the Authority and the Consultants.

4.3 Approval of Personnel

The Key Personnel and Sub consultants listed by title as well as by name in Appendix B are hereby approved by the Authority. In respect of other Key Personnel which the Consultants propose to use in the carrying out of the Services, the Consultants shall submit to the Authority for review and approval a copy of their biographical data. If the Authority does not object in writing (stating the reasons for the objection) within twenty-one (21) calendar days from the date of receipt of such biographical data, such Key Personnel shall be deemed to have been approved by the Authority.

4.4 Working Hours, Overtime, Leave, etc.

(1) Working hours and holidays for Key Professional / Support Team/ Support Staff are set forth in Appendix C hereto. To account for travel time, foreign Personnel carrying out Services inside the Government's country shall be deemed to have commenced (or finished) work in respect of the Services such number of days before their arrival in (or after their departure from) the Government's country as is specified in Appendix C hereto.

(2) The Key Professional/ Support Team/ Support Staff shall not be entitled to be paid for overtime nor to take paid sick leave or vacation leave except as specified in Appendix C hereto, and except as specified in the Consultants' remuneration deemed to cover these items. All leave to be allowed to the Personnel is included in the staff-months of service set for in Appendix B. Any taking of leave by Personnel shall be subject to the prior approval of the Authority by the Consultants, who shall ensure that absence for leave purposes will not delay the progress and adequate supervision of the Services.

4.5 Removal and/or Replacement of Personnel

Removal and/or replacement of Personnel shall be regulated as under:

- i) In case notice to commence services pursuant to Clause 2.1 of this Contract is not ordered by Authority within 120 days of negotiations the key personnel can excuse themselves on valid grounds, e.g., selection on some other assignment, health problem developed after contract negotiation, 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.
- ii) In case notice to commence services is given within 120 days of negotiations the replacement shall be as below:
 - a. Except as the Authority may otherwise agree, no changes shall be made in the Key Personnel. If, for any reason beyond the reasonable control of the Consultants, it becomes necessary to replace any of the Personnel, the Consultants shall forthwith provide as a replacement a person of equivalent or better qualifications.
 - b. If the Authority (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 cause to be dissatisfied with the performance of any of the Personnel, then the Consultants shall, at the Authority's written request specifying the grounds therefore, forthwith provide as a replacement a person with qualifications and experience acceptable to the Authority.

c. DELETED

iii) Replacement after original contract period is over:

There shall be no limit on the replacements and no reduction in remunerations shall be made. The replacement shall however be of equal or better score.

- iv) If the Authority (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 Authority's written request specifying the grounds therefore, forthwith provide a replacement with qualifications and experience acceptable to him.
- v) If the team leader or any other key personnel/ specialist considered pivotal to the Project

- is replaced, the substitute may be interviewed by the Authority to assess their merit and suitability.
- **4.5.6** If any member of the approved team of a Consultant engaged by the Authority leaves the Consultant's job 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 Authority's projects.
- **4.5.7** In exceptional situations where the replacement with equivalent or better qualification is not available, replacement with lower qualifications than the originally approved may be accepted with reduction in remuneration as per the procedure prescribed below. This kind of relaxation shall however, be limited to replacement of 2 key personnel only in one consultancy contract package.
 - i) The new proposed personnel as a replacement has to be evaluated as per the criteria fixed at the time of evaluation of original proposal and marks/rating and then:
 - -If the original personnel (included in the original proposal based on which the contract was awarded) is to be replaced at the instruction of the Authority and the new proposed personnel is having less qualification/ experience i.e. marks/rating (but fulfilling the minimum requirement as per TOR), his remuneration would be reduced by 15% over and above the stipulated conditions in the contract because of less qualified personnel.
 - -If the original personnel (included in Contract Agreement) is to be replaced by the Consulting firm and the new proposed personnel is having less qualification/ experience (marks/rating), then his remuneration would be decreased proportionally in comparison to the marks of the original personnel. This will also take into account the contract condition and if the proposed reduction is less than that stipulated in contract condition, it would be as per the contract provision.
 - It will be ensured that the new proposed personnel should score at least 75% of the marks of the originally approved key personnel. Both the Consulting firm and the proposed personnel should give the undertaking in the format available in Form VII of Appendix II along with the replacement CV.
 - ii) The CV should be signed by personnel and the consulting firm in every page. If the CV is found incorrect at later date, the personnel accepted would be removed from the assignment and debarred from further Authority / Authority's works for an appropriate period to be decided by the Authority and the new proposed personnel in place of remove personnel would be paid 15% less salary than the original personnel. 15% reduction in the salary will be imposed as penalty for submitting the incorrect information. This penalty will be imposed only once. If the same consulting firm submits incorrect information again second time, necessary action will be taken by the Authority to black list the firm.

4.6 Resident Project Manager: If required by the SCC, the Consultants shall ensure that at all times during the Consultants' performance of the Services in the Government's country a resident project manager, acceptable to the Authority, shall take charge of the performance of such Services.

5. OBLIGATION OF THE AUTHORITY

5.1 Assistance and Exemptions

Unless otherwise specified in the SCC, the Authority shall use its best efforts to ensure that the Government shall:

- (a) 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;
- (b) assist for the Personnel and, if appropriate, their eligible dependents to be provided promptly with all supporting papers for necessary entry and exit visas, residence permits, exchange permits and any other documents required for their stay in India;
- (c) facilitate prompt clearance through customs of any property required for the Services;
- (d) 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;

5.2 Access to Land

The Authority warrants that the Consultants shall have, free of charge, unimpeded access to all land in the Government's country in respect of which access is required for the performance of the Services. The Authority will be responsible for any damage to such land or any property thereon resulting from such access and will indemnify the Consultants and each of the Personnel in respect of liability for any such damage, unless such damage is caused by the default or negligence of the Consultants or any Sub consultants or the Personnel of either of them.

5.3 Change in the Applicable Law

If, after the date of this Contract, there is any change in the Applicable Law with respect to taxes and duties which increases or decreases the cost or reimbursable expenses incurred by the Consultants in performing the Services, then the remuneration and reimbursable expenses otherwise payable to the Consultants under this Contract shall be increased or decreased accordingly by agreement between the Parties hereto, and corresponding adjustments shall be made to the ceiling amounts specified in Clause 6.1(b).

5.4 Services, Facilities and Property of the Authority

The Authority shall make available to the Consultants and the Personnel, for the purposes of the Services and free of any charge, the services, facilities and property described in Appendix D at the times and in the manner specified in said Appendix D, provided that if such services, facilities and property shall not be made available to the Consultants as and when so specified, the Parties shall agree on (i) any time extension that may be appropriate to grant to the Consultants for the performance of the Services, (ii) the manner in which the Consultants shall procure any such services, facilities and property from other sources, and (iii) the additional payments, if any, to be made to the Consultants as a result thereof pursuant to Clause 6.1(c) hereinafter.

5.5 Payment

In consideration of the Services performed by the Consultants under this Contract, the Authority shall make to the Consultants such payments and in such manner as is provided by Clause 6 of this Contract.

6. PAYMENT TO THE CONSULTANTS

6.1 Cost Estimates; Ceiling Amount

- (a) An abstract of the cost of the Services payable in local currency (Indian Rupees) is set forth in Appendix E.
- (b) Except as may be otherwise agreed under Clause 2.6 and subject to Clause 6.1(c), the payments under this Contract shall not exceed the ceiling specified in the SCC. The Consultants shall notify the Authority as soon as cumulative charges incurred for the Services have reached 80% of the ceiling.
- (c) Notwithstanding Clause 6.1(b) hereof, if pursuant to Clauses 5.4 hereof, the Parties shall agree that additional payments shall be made to the Consultant in order to cover any necessary additional expenditures not envisaged in the cost estimates referred to in Clause 6.1(a) above, the ceiling set forth in Clause 6.1(b) above shall be increased by the amount or amounts, as the case may be, of any such additional payments.

6.2 Currency of Payment

The payment shall be made in Indian Rupees.

6.3 Mode of Billing and Payment

Billing and payments in respect of the Services shall be made as follows:-

(a) Payment Schedule

- a) The payments shall be payable to the Consultant as per TOR viz. Payment Schedule, for the scheduled period of completion plus a valid extension, subject to confirmation to TOR.
- b) If a further valid extension is given to the Consultant, the fee payable to the Consultant every month beyond original time period, fee shall be increased by

5% per annum of time related fee.

- **Note:** Consultant has to provide a certificate that all key personnel as envisaged in the Contract Agreement have been actually deployed in the Project. They have to submit this certificate at the time of submission of bills to the Authority from time to time.
- (c) No payment shall become eligible for the next stage till the Consultant completes to the satisfaction of the Authority the work pertaining to the preceding stage. Any adjustment in the payment to the Consultant will be made in the final payment only
- (d) The Authority shall cause the payment of the Consultant in Para 6.3 (b) above as given in schedule of payment within thirty (30) days after the receipt by the Authority of bills.
- (e) The final payment under this Clause shall be made only after the final report and a final statement, identified as such, shall have been submitted by the Consultant and approved as satisfactory by the Authority. The Services shall be deemed completed and finally accepted by the Authority and the final report and final statement shall be deemed approved by the Authority as satisfactory one hundred and eighty (180) calendar days after receipt of the final report and final statement by the Authority unless the Authority within ninety (90) day period, gives written notice to the Consultant specifying in detailed deficiencies in the Services, the final report or final statement. The Consultant shall thereupon promptly make any necessary corrections, and upon completion of such corrections, the foregoing process shall be repeated. Any amount which the Authority as paid or caused to be paid in accordance with this Clause in excess of the amounts actually payable in accordance with the provisions of this Contract shall be reimbursed by the Consultant to the Authority within thirty (30) days after receipt by the Consultant of notice thereof. Any such claim by the Authority for reimbursement must be made within twelve (12) calendar months after receipt by the Authority of a final report and a final statement approved by the Authority in accordance with the above.
- (f) All p a y m e n t s under this Contract shall be made to the account of the Consultant specified in the SCC.

7. RESPONSIBILITY FOR ACCURACY OF PROJECT DOCUMENTS

- 7.1 General
- 7.1.1. The Consultant shall be responsible for accuracy of the data collected, by it directly or procured from other agencies/authorities, the designs, drawings, estimates and all other details prepared by it as part

of these Services. It shall indemnify the Authority against any inaccuracy in the work which might surface during implementation of the Project. The Consultant will also be responsible for correcting, at it's own cost and risk, the drawings including any re-survey / investigations and correcting layout etc. if required during the execution of the Services.

- 7.1.2 The Consultant shall be fully responsible for the accuracy of design and drawings of the bridges and structures. All the designs and drawings for bridges and structures including all their components shall be fully checked by a Senior Engineer of the Authority after completion of the designs. All drawings for bridges and structures shall be duly signed by the:
 - (a) Designer of the Authority
 - (b) Senior Checking Engineer of the Authority
 - (c) Senior Bridge / Structure Expert of the Authority

The designs and drawings not signed by the three persons mentioned above shall not be accepted. The Consultant shall indemnify the Authority against any inaccuracy / deficiency in the designs and drawings of the bridges and structures noticed during the construction and even thereafter and the Authority shall bear no responsibility for the accuracy of the designs and drawings submitted by the Consultants.

7.1.3. The survey control points established by the Consultant shall be protected by the Consultant till the completion of the Consultancy Services.

7.2 Retention Money

An amount equivalent to 5% of the contract value shall be retained at the end of the contract for 1 year from completion of consultancy services. The retention money will however be released by the Authority on substitution of Bank Guarantee of the same amount valid up to the period as above.

7.3 Penalty

7.3.2 During the period of consultancy, the Authority may ask the Consultant to demobilize and remobilize staff, in part or full, with a fifteen (15) days written notice. No extra payment / compensation / claims shall be entertained on account of such demobilization and remobilization. Time period for consultancy activities shall be 30 (Thirty) months. This tentative time period may change as per project development.

Penalty for Delay

The period for Consultancy services is specified in Data Sheet. If the Consultant does not complete the activities within the period as stipulated in the Data Sheet, then payment due to him will be reduced by 1% per month of contract price of the Consultant subject to a maximum of 5% of the contract price, for every additional month unless valid extension is given by the Authority. If subsequent additional month is consumed by the Consultant for consultancy

activities additional 1% per month shall be reduced. Such reduction shall be limited to the 5% of the total fees.

Extension to time limit

- c) If there is genuine (for reasons not attributable to the Consultant) delay to complete the Consultancy services by the Consultant on account of reasons beyond his control, then the Consultant should obtain valid extension for the required period. In the meantime, the Consultant should put in every effort to remove the cause of delay.
- d) The reduction in the fees if any for want of valid extension made for the delay may be released only after the valid extension is granted.
- e) The decision of PD, PIU, of the Authority for granting extension and penalty shall be final and binding.

7.4 Action for Deficiency in Services

7.4.1 Consultant's liability towards the Authority

Consultant shall be liable to indemnify the Authority for any direct loss or damage accrued or likely to accrue due to deficiency in Service rendered by him.

7.4.2 Warning / Debarring

In addition to the penalty as mentioned in para 7.3, warning may be issued to the erring Consultant for minor deficiencies. In the case of major deficiencies in the Detailed Project Report involving time and cost overrun and adverse effect on reputation of the Authority, other penal action including debarring for certain period may also be initiated as per the policy of the Authority.

7.4.3 Liquidated damages for error/variation

In case any error or variation is detected in the report submitted by the Consultant and such error or variation is the result of negligence or lack of due diligence on the part of the Consultant, the consequential damages thereof shall be quantified by the Authority in a reasonable manner and recovered from the Consultant by way of deemed liquidated damages, subject to a maximum of the Contract Value

7.4.4 Encashment and Appropriation of performance Security

The Authority shall have the right to invoke and appropriate the proceeds of the Performance Security, in whole or in part without notice to the Consultant in the event of breach of this Contract or recovery of liquidated damages specified in the Clause 7.4,3 hereinabove.

8 FAIRNESS AND GOOD FAITH

8.4 Good Faith

The Parties undertake to act in good faith with respect to each other's rights under

this Contract and to adopt all reasonable measures to ensure the realization of the objectives of this Contract.

8.5 Operation of the Contract

The Parties recognize that it is impractical in this Contract to provide for every contingency which may arise during the life of the Contract, and the Parties hereby agree that it is their intention that this Contract shall operate fairly as between them, and without detriment to the interest of either of them, and that, if during the term of this Contract either Party believes that this Contract is operating unfairly, the Parties will use their best efforts to agree on such action as may be necessary to remove the cause or causes of such unfairness, but no failure to agree on any action pursuant to this Clause shall give rise to a dispute subject to arbitration in accordance with Clause 9 hereof.

9 SETTLEMENT OF DISPUTES

9.1 Amicable Settlement

The Parties shall use their best efforts to settle amicably all disputes or difference arising between them, out of or in connection with this Contract or the interpretation thereof.

9.2 Dispute Settlement

All differences and disputes arising out of or in connection with these presents shall be referred by the Consultant to the Chief Engineer (R&B), Buildings, Errummanzil, Hyderabad, whose decision shall be final and biding on the Consultant. The Consultant shall be given reasonable opportunity to represent their case before the Chief Engineer (R&B), Buildings, Errummanzil, Hyderabad,

9.3 Arbitration

The arbitration clause shall not apply to this Contract. The Civil Courts of Hyderabad only shall have jurisdiction to entertain the disputes arising out of this Contract by way of civil suits.

10 SEVERABILITY

If anyone or more of the provisions of the Contract shall for any reason be held as invalid, illegal or unenforceable, the remaining provisions of the Contract shall remain unimpaired and shall continue in full force and effect.

- No Continuing Waiver: The waiver by any party or any breach of this Contract shall not operate or be construed to be a waiver of any subsequent breach.
- 12 This Contract may be executed in two or more counterparts, each of which shall be deemed to be an original copy and all of which together shall constitute one contract, binding on all parties hereto, notwithstanding that all the parties shall not have signed the same counterpart.

SPECIAL CONDITIONS OF CONTRACT

1. **GENERAL**

These Special Conditions of Contract delete, amend or add to the clauses in the General Conditions of Contract. In the event of an inconsistency, these Special Conditions of Contract shall take precedence over the General Conditions of Contract to the extent of that inconsistency.

1.1 The details of the Parties are:

For the Authority

Address:

Project, Director, PIU, Hyderabad RRR (Southern Part)

Govt of Telangana, Hyderabad, India.

Attention: Tel:XXXXXXX

E-mail Address: XXXXXX

For the Consultants

Attention:

Name

Designation

Address

Tel:

E-mail address

1.2 Notice will be deemed to be effective as follows:

- (a) in the case of personal delivery or registered mail, on delivery;
- (b) In the case of facsimiles, 24 hours following confirmed transmission.
- (c) In case of E mail, 24 hours following confirmed transmission.

1.3	Entity to Act as Member in charge (In case of consortium of Consultants) with or without a
	Associate:

•	•	•	•	•	•	٠	•	•	•	•	•	•	•	•	•	•	٠	•	•	•	•	•	•	•	•	•	•	•

1.4 The Authorized Representatives are:

For the Authority: (--)

Project, Director, PIU, Hyderabad RRR (Southern Part)

Govt of Telangana, Hyderabad, India,

For the Consultant: Name

Designation

1.5 The **Consultant** and the personnel shall pay the taxes, duties, fees, levies and other impositions levied under the existing, amended or enacted laws prevailing 7 days before the last date of submission of bids, during life of this Contract and the Authority shall perform such duties in regard to the deduction of such tax as may be lawfully imposed.

2. DOCUMENTS

- a) The Contract has been approved by the Authority
- b) The Consultant will furnish within 15 days of the issue of letter of acceptance, an unconditional Bank Guarantee from a Nationalized Bank (BG). The BG shall be furnished for an amount equivalent to 10 % of the total contract value to be received by the Consultant towards Performance Security valid for a period of *three years* beyond the date of completion of Services.
- 2.1 The time period shall be "Thirty months" or such other time period as the parties may agree in writing.
- 2.2 The time period shall be ----- months or such other time period as the parties may agree in writing.
- 2.3 Limitation of the Consultants' Liability towards the Authority:
 - (a) Except in case of negligence or willful misconduct on the part of the Consultant or on the part of any person or firm acting on behalf of the Consultant in carrying out the Services, the Consultant, with respect to damage caused by the Consultant to the Authority's property, shall not be liable to the Authority for any of the following:
 - (i) for any indirect or consequential loss or damage; and
 - (ii) for any direct loss or damage that exceeds (A) the total payments for Professional Fees and Reimbursable Expenditure made or expected to be made to the Consultant hereunder, or (B) the proceeds the Consultant may be entitled to receive from any insurance maintained by the Consultant to cover such a liability, whichever of (A) or
 - (B) is higher.

This limitation of liability shall not affect the Consultant's liability, if any, for damage to Third Parties caused by the Consultant or any person or firm acting on behalf of the Consultant in carrying out the Services.

3. FORECLOSURE

3.1 Authority may, but not less than 30 (thirty) days written notice of foreclosure (the expiry of the

- notice period whereof being the date of termination) to the Consultant, without assigning any reason whatsoever at any stage of the Contract, terminate/ foreclose the Contract
- 3.2 Upon termination/ foreclosure of this Contract, the Consultant shall take necessary steps to bring the work to a close in prompt and orderly manner and shall handover all the documents/ reports to the Authority

The Consultant shall be duly paid for the works carried out and services rendered till the date of termination / foreclosure. No compensation or claims shall be payable on account of such termination/foreclosure.

APPENDIX A

TERMS OF REFERENCE CONTAINING, INTER-ALIA, THE DESCRIPTION OF THE SERVICES AND REPORTING REQUIREMENTS

Refer TOR

APPENDIX B

CONSULTANT'S SUB - CONSULTANTS, KEY PERSONNEL AND SUB PROFESSIONAL PERSONNEL

APPENDIX C

HOURS OF WORK FOR CONSULTANTS' PERSONNEL

The Consultant's team shall be considered as employees of the Authority. The Consultant's personnel shall normally work for 8 hours in a day and six days a week. Normally Sundays shall be closed for working. In addition they shall also be allowed to avail holidays as observed by the Authority's office in the relevant state without deduction of remunerations. In case any person is required to work on Sunday or Holiday due to exigency of work, he/she shall be given compensatory leave within the next 15 days. Overall holidays shall be applicable as per Authority holiday list.

APPENDIX D

DUTIES OF THE AUTHORITY

APPENDIX E

COST ESTIMATE

Pursuant to Payment Schedule and Financial Proposal

APPENDIX F

MINUTES OF FINANCIAL/ CONTRACT NEGOTIATIONS WITH THE CONSULTANT

APPENDIX G: COPY OF LETTER OF INVITATION

APPENDIX H: COPY OF LETTER OF ACCEPTANCE

APPENDIX –I: FORMAT FOR BANK GUARANTEE FOR PERFORMANCE SECURITY (FOR INDIVIDUAL WORK)

Bank Guarantee Format for Performance Security

To B.G. No.Dated:
The Superintending Engineer (R&B) NH Circle,
Hyderabad
Errummanzil
Hyderabad, Telangana
India

In consideration of Government of Telangana represented by the **Project** Director, PIU, Hyderabad RRR (Southern Part), Govt of Telangana having its office at 7th Floor, (R&B) Building, Errummanzil, Hyderabad-500082, Telangana (hereinafter referred as the "Authority", which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators and as- signs) having selected M/s having its office at [insert details of the JV/ consortium in case the Consultant is a JV/ consortium] (hereinafter referred as the "Consultant" which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and per mitted assigns), as the Project Consultant for DPR Preparation, PMU and Technical, Financial and Transaction Advisory for the development of Hyderabad Regional Ring Road (Southern Part) pursuant to the RFP Document No...... dated and entering into a contract with the Consultant on or about the date hereof for its appointment as the 'Project Consultant for DPR Preparation, PMU and Technical, Financial and Transaction Advisory for the development of Hyderabad Regional Ring Road (Southern Part) ' (hereinafter referred to as the "Contract"). In terms of the RFP, the Consultant is required to furnish a BankGuarantee for Rs. (Rupees) to the Authority for the due performance of the said Contract.

We, (hereinafter referred to as the "Bank") do hereby undertake to pay to the Authority an amount not exceeding Rs. (Rupees) for any default of or breach or failure to perform by the said Consultant of any of the terms or conditions contained in the said Contract, including for recovery of any liquidated damages under the said Contract.

We, the Bank do hereby undertake unconditionally and irrevocably to pay theamounts due and payable under this Guarantee without any demur, delay, reservation, recourse,

contest or protest merely on the first demand from the Authority stating thatthe amount claimed is required to be paid against any loss or damage caused to or suffered or that would be caused to or suffered by the Authority due to a default of or breach by the said Consultant of any of the terms or conditions contained in the said Contract or by reason of the Consultant's failure to perform the said Contract. Any such demand made on the bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs. (Rupees).

We, the Bank, agree that the Authority shall be the sole judge as to whether the Consultant is in default of or breach of any of the terms and conditions of the Contract and the decision of the Authority that the Consultant is in default shall be final, and binding on the Bank, notwithstanding any differences regarding the decision taken by the Authority between the Authority and the Consultant. We undertake to pay to the Authority any money so demanded notwithstanding any dispute or disputes raised by the Consultant in any suit or proceeding pending before any court or tribunal relating thereto, our liability under this present being absolute and unequivocal.

It shall not be necessary, and the Bank hereby waives any necessity, for the Authority to proceed against the Consultant before presenting to the Bank its demandunder this Guarantee. In order to give effect to this Guarantee, the Authority shall be entitled to act as if the Bank were the principal debtor.

We, the Bank further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract and that it shall continue to be enforceable till all the dues of the Authority under or by virtue of the said Contract have been fully paid and its claims satisfied or discharged or till the Authority certifies that the terms and conditions of the said Contract have been fully and properly carried out by the said Consultant and accordingly discharges this Guarantee. Unless a demand or claim under this Guarantee is made on us in writing on or before a period of one year from the date of expiry of this Guarantee, we shall be discharged from all liability under this Guarantee thereafter.

We, the Bank further agree that the Authority shall have the fullest liberty without requiring our consent and without affecting in any manner our liability and obligations hereunder to vary at any time any of the terms and conditions of the said Contract 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 Contractor 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 Contract and the Bank 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 granted 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 Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.

This Guarantee will not be discharged due to the change in the constitution of the Bank or the Consultant and any change in the constitution of the Consultant and/orthe Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.

This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Authority in respect of or relating to the Contract or for the fulfillment, compliance and/or performance of all or any of the obligations of the Consultant under the Contract.

We, the Bank, lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the Authority in writing and declare and warrant that we have the power to issue this Guarantee and the undersigned has full powers todo so on behalf of the Bank.

Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred Branch, which shall be deemed to have been duly authorized to receive such notice and to effect payment thereof forth-with.

This Guarantee shall come into force with immediate effect and shall remain in force and effect for a period of from the date hereof i.e. upto [insert expiry date]. The Authority shall make a demand or claim under this Guarantee on the Bank in writing on or before expiry of a period of one (1) year from [insert expiry date].

Dated,	the day of 20
For	
	(Name of Bank)
(Signature, Name and Desig	gnation of the Authorised Signatory)
	Seal of the Bank:

APPENDIX J : REPLY TO QUERIES OF THE BIDDER