



# NATIONAL HIGHWAY AUTHORITY

Procurement & Contract Administration Section  
28 Mauve Area, G-9/I, Islamabad ☎ 051-9032727, 📠 051-9260419

Ref: 6(553)/DIR-III (P&CA/NHA/2022/470

Dated: 26<sup>th</sup> January, 2022


## All Prospective Consultants

Subject: **Consultancy Services for Detailed Design and Preparation of PC-1 for Construction of Road Between Shounter to Rattu along with Tunnel at Shounter**

### **“Minutes of Pre-Proposal Meeting & Addendum No.1 ”**

Reference: Pre-Proposal meeting held on 5<sup>th</sup> November, 2021.

Minutes of Pre-Proposal Meeting alongwith Addendum No.1 being integral part of RFP for the subject Consultancy services are enclosed herewith for necessary action, please.

  
(MUHAMMAD AHMED ABRO)  
Director (Consultancy)P&CA

### **Enclosure:**

- **Minutes of Pre-Proposal Meeting (06 Pages)**
- **Addendum No.1 (01 Page)**
- **Attachments to Addendum No.1 (06 Pages)**

### **Copy for information to:**

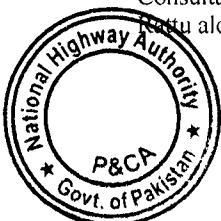
- Member (Planning), NHA, Islamabad;
- General Manager (Planning), NHA, Islamabad;
- General Manager (Design), NHA, Islamabad;
- General Manager (P&CA) NHA, Islamabad;
- Dir (MIS) NHA, Islamabad.
- DD (Services)-P&CA NHA, Islamabad.

**MINUTES OF PRE-PROPOSAL  
MEETING HELD ON 5<sup>th</sup> NOVEMBER, 2021**

**Consultancy Services for Detailed Design and Preparation of PC-I for  
Construction of Road between Shounter to Rattu along with Tunnel at Shounter**

A Pre-Proposal Meeting was held in NHA Auditorium at 1100 hours on 5<sup>th</sup> November, 2021 to discuss the Request for Proposal (RFP) for subject Services in the presence of NHA officials and prospective consultants. The clarifications/ replies to the queries raised during pre-proposal meeting and those submitted afterwards, are summarized below for information of all prospective Consultants:

Sr. No	Queries	Reply
1.	Clause 2.3 of ToR (Page#57) - Time to Complete the Services: The total length of project is 81.5 km which includes 12.7 km of long Tunnel and 68.8 km of two (2) lane Highway. Only three (3) months are provided in RFP to complete the services of Preliminary design, Feasibility study and detailed design which are extremely insufficient for the design of such kind of mega project indicates that the time is kept with no knowledge of the extensive design requirements for the design of Long Tunnels. The detailed design work includes the detail design of 68.8 km of highway including bridges, avalanche galleries, side slope protection at unstable slopes etc. The detailed design of 12.7 km of long Tunnel includes the ventilation shaft, link access roads, portal facilities, Tunnel E&M, Tunnel Lighting, Tunnel Safety and SCADA systems etc. Moreover, the detailed investigations include topographic survey, geological survey, hydrology survey, traffic survey, geotechnical investigation, soil and material investigations which alone can take 3 to 4 months. Therefore, at least 10 months should be allocated for the time to complete the services.	Not acceded to. Please proceed as per RFP.
2.	Clause 1.8 of ToR (Page#10) – Registration of Foreign Company with PEC:  As per RFP the registration of foreign company with PEC is mandatory. The procedure of registration with the PEC is time consuming. It is suggested that the receipt of the submitted application of the foreign company for registration with PEC the final registration with PEC may also kindly be intimated, please.	Agreed; however, receipt of the submitted application of the foreign company should be submitted with proposal and consultant shall provide PEC registration certificate at the time of contract negotiation. If consultants failed to provide the PEC Certificate, then, Client will reject its proposal and will invite the 2 <sup>nd</sup> highest ranked consultant for contract negotiation. If negotiation fails with the 2 <sup>nd</sup> ranked consultants, then NHA will invite the 3 <sup>rd</sup> ranked consultant and will repeat the process until minutes of contract negotiation signed successfully.
3.	Clause 3.14 (Page#12) of Data Sheet-Key Personnel: Team Leader (Tunnel Engineer) (Expatriate) and Deputy Team Leader/ Contract Specialist: TOR in section 1.2 on page 54 provides that the local Consultant should associate the foreign consultant as JV partner which indicates that the Local Consultant will be the Lead Consultant. As such the Team	Not acceded to. Please proceed as per RFP.



Sr. No	Queries	Reply
	Leader should be from the Local Consultant. Therefore, it is suggested that the Team Leader - (Tunnel Engineer) (Expatriate) should be changed to Deputy Team Leader and the Deputy Team Leader/ Contract Specialist (Local) should be changed to Team Leader.	
4.	Geotechnical Engineer (Local): The detailed design of Tunnel support system, Tunnel excavation classes, Slopes stability analysis and protection measures and Bridges requires extensive input of geotechnical Engineer but there is no Local Geotechnical Engineer is provided. Therefore, it is requested to include the Local Geotechnical Engineer.	Not acceded to. Please proceed as per RFP.
5.	Pavement Specialist & Highway Engineer: Pavement Specialist/ Highway Engineer is mentioned in Key Personnel on page 13 of RFP. However, pavement design and highway design (Geometric) are separate portfolios. It is therefore requested to keep both portfolios as a separate expert. A pavement specialist cannot be a Highway (Geometric) Expert.	Not acceded to. Please proceed as per RFP.
6.	Clause 5.2 of Data Sheet (Page#17) – Share of New/ Fresh Firm: 20% share is specified in RFP for the new firm for the purpose of transfer of technology. The new/ fresh firm has usually less financial and technical resources. It is therefore, requested to reduce the share of new/fresh firm to 10%.	It is a policy matter. NHA has taken up at higher level. Till then proceed as per RFP.
7.	Clause 7.2 (Page#18) – Time of Commencement of Services. It is mentioned in RFP that the assignment is expected to commence in January 2022, but due to weather conditions in Rattu in GB and Shouner in Neelum Valley, AJK it is impossible to carryout assignment in winters and project area remains inaccessible until April. Therefore, it is requested to change time of commencement of work to May 2022.	It is an expected time for commencement of services. The actual commencement will be made after successful completion of procurement process.  For ease, please refer to <b>Addendum No.1.</b>
8.	Form A-16 (Page#49) - Direct Costs: The quantity kept for office at Islamabad is 13 months which needs clarification in relation to the time to complete the services.	Please refer to <b>Addendum No.1.</b>
9.	Form A-16 (Page#50) - Horizontal Drilling and TOR (Page#90): Following changes are requested to be made in RFP for drilling required for Geotechnical Investigations (i) The word "Horizontal" should be deleted as horizontal drilling is performed during construction for pilot drilling. (ii) It is mentioned in TOR that 30m drilling is required at each portal whereas about 100m drilling is required at two to three places up to Tunnel profile. In addition, drilling is also required at slope stability locations, bridges, and structures. As such, a tentative drilling length of about 1000 meter may be kept for bidding purposes and the unit may be changed to provisional sums (PS) and an amount of 14 million may be kept as provisional sums.	Agreed. Please refer to <b>Addendum No.1.</b>



Sr. No	Queries	Reply
10.	<p>Form A-16 (Page#51) and Section 3.6 of ToR (Page#66-67) - 2.5m Satellite Imagery: The AOI of 150 Sq. Km for a project of 81.5 km for the Satellite Images (2.5m) &amp; OEM (5.0 m) is insufficient. It should be changed to 1500 Sq. km which can also be used for the Hydrology study of the area through latest software's.</p> <p>The unit of this item may be changed to PS instead of LS and an amount of 6 million may be kept for this item as provisional sums.</p>	<p>The Client has made provision for AOI as 150 Sq. Km. Actual area shall be identified subsequent to finalization of alignment. Any additional image/ DEM requirement that arises at a later stage can be fulfilled using Drone/ UAV for which provision has already available in the Form A-16 of RFP.</p> <p>Not acceded to. Please proceed as per RFP.</p>
11.	Form A-16 (Page#50) – Petrographic Testing for Geological Study: In Item no. 24, petrographic testing for the overburden samples (100 samples) collected at the cut/side slopes and Tunnel Alignment may also be added.	Please refer to <b>Addendum No.1.</b>
12.	Form A-16 (Page#51) – Geophysical testing including seismic refraction and electromagnetic survey: Item no. 32 "seismic study" may be modified to read "Seismic refraction and electromagnetic survey at Tunnel and Bridges. The unit of this item may be changed to provisional sums (PS) and an amount of 2 million may as provisional sums.	Please refer to <b>Addendum No.1.</b>
13.	Form A-16 (Page#51) - Portal Facilities: An item may be added to quote the cost to design the portal facilities.	Please refer to <b>Addendum No.1.</b>
14.	Form A-16 (Page#51) – Traffic Survey and Axle Load Survey: An item may be added to quote the cost for traffic and Axle Load Survey.	Consultant may cover cost of Traffic and Axle Load Survey in the monthly billing rate of Pavement Specialist and Highway Engineer.
15.	Form A-16 (Page#51) – Soil and Material Investigation: An item may be added to quote the cost for Soil and Material Investigation.	Not acceded to. Please proceed as per RFP.
16.	Form A-16 (Page#51) – Hydrology and Hydraulic Study: An item may be added to quote the cost for Hydrology and Hydraulic Study.	Consultant may cover cost of Hydrology and Hydraulic Study in the monthly billing rate of Hydrologist/ Drainage Engineer.
17.	Form A-16 (Page#51) – UAV Drone Survey: An item may be added to quote the cost for performing UAV Drone Survey along the Alignment, Slope Stability Areas and Portal Areas	<p>The Drone equipment was included to facilitate the Consultant in acquisition of aerial images &amp; DEM data, when and where required. This is an addition to the already available items of topographic survey and satellite image/ DEM provisions in the Direct Cost Form &amp; hence no separate item is deemed appropriate. Moreover, it costs only Drone Operator to perform Drone Survey and hence the cost envisaged under Drone Survey may be included by the Consultants in other payable items.</p> <p>In addition to above, it is also clarified that consultant shall hand over the drone equipment and all of its accessories to NHA after completion of design consulting services assignment in fully functional condition.</p>



Sr. No	Queries	Reply
18.	Form A-16 (Page#51) – Purchase of Drone: Under item 31, please clarify that what would be the accessories to be purchased along with the purchase of Drone	<p>For clarification, the standard drone box typically includes the following:</p> <ul style="list-style-type: none"> <li>- Main drone</li> <li>- Remote controller with built-in hd display</li> <li>- 1 x battery</li> <li>- 1 x battery charging hub</li> <li>- 1 x power adopter</li> <li>- 1 x low – noise propellers</li> <li>- 1 x SD card (128 GB)</li> <li>- Carrying Box</li> </ul> <p>However, the following additional accessories should also be included:</p> <ul style="list-style-type: none"> <li>- 5 x Batteries</li> <li>- 2 x battery charging hubs</li> <li>- 2xpower adaptor with ac power cable</li> <li>- 2 x sets of low-noise propellers</li> <li>- 2 x sets of propellers guards</li> <li>- 2 x portable car charger kit</li> <li>- 1 x bag for Accessories</li> </ul>
19.	Form A-16 (Page#51) – EIA: We understand that EIA has already been performed and as such this item and relevant reference in the TOR needs to be deleted.	Agreed. Please see <b>Addendum No.1.</b>
20.	<p>Section 3.8 of ToR (Page#59 and 75) – Sequence of Work: In different paras, different sequence of work is mentioned as follows: The feasibility study report needs to updated/ finalized on the basis of preliminary design and investigation. In second para, it is mentioned that the presentation will be made to NHA for approval and once it will be approved, the Consultant will carry out investigation and detail design. Furthermore, in last para, it is mentioned that the consultant will exactly ascertain the number and location of bridges, tunnels, retaining walls, slope stability etc. But that will have to be finalized in preliminary design stage. In view of above, please clarify the following:</p> <ul style="list-style-type: none"> <li>•On which studies the comparison of Alignment be made i-e satellite image and DEM etc.</li> <li>•On which studies the preliminary design is based on.</li> <li>•On which studies Feasibility study shall be based on.</li> <li>•Topographic survey, Geological Survey, Geotechnical investigations, Geophysical survey and detailed design shall be done on the final Alignment after its approval.</li> </ul>	<p>The already prepared Feasibility Study Report of the project containing chapters on Traffic Study, Engineering Surveys, Selection of Route Corridors, Preliminary Design, Construction Cost and Economic Survey etc. alongwith other available data will be shared with the Consultant for comparison of already proposed alignment alternatives. However, consultant may use drone surveys for acquisition of aerial images and DEM for further augmenting the existing alignment options as well as for studying a new option. It is already mentioned in the TOR that detailed investigations, studies and detailed design will be undertaken after approval of alignment from client. However, consultant may also carryout any other necessary investigations to evaluate and support their proposed alignment option.</p>
21.	Refer to clause 3.1.4 of Data Sheet, considering local available experience of Key Personnel in Tunnel Design, the Client proposed five foreign expatriates with significant experience to assist local firm for successful completion of project. It is therefore, requested that preferable experience of local experts in Tunnel Design as stated in RFP document may kindly be relaxed.	Not acceded to. Please proceed as per RFP.



Sr. No	Queries	Reply
22.	Refer to clause 3.1.4 of Data Sheet, for a local firm to be the lead member of JV, it is suggested that Team Leader would be from National Experts.	Not acceded to. Please proceed as per RFP.
23.	Refer to clause 2.3 of TOR, time period for the project is 3 months. Considering the quantum of work along with difficult terrain and severe weather conditions, it is requested that duration of project may kindly be extended for at least 10 months.	Not acceded to. Please proceed as per RFP.
24.	Refer the Sr. No. 5, Form A-16 of RFP document, it is suggested that geotechnical investigation may be kept as provisional sum for a competitive bidding.	Not acceded to. Please proceed as per RFP.
25.	Refer to Clause 2, Form A-4 (A and B) of RFP document, it is stated that, "... Enumerate each suggestion in Form-4A with incremental cost as a separate attachment to Financial Proposal indicating breakdown into individual remuneration and expenses for each suggestion. Forms A-11 to 17 should be prepared without incorporating the changes". However, Form A-16 of RFP document states that 'others items not covered above to comply with TOR requirement should be mentioned under Sr. No. 25 of Form A-16 with solid/ tenable justification(s) detailed in Technical Proposal Submission Form A-4. Kindly clarify.	It is hereby clarified that any item which consultant understand that it is necessary for execution of the project, then consultant shall give proper justification in FORM A-4 without mentioning cost component in Form A-4. The cost component shall be written under head "others items not covered above to comply with TOR requirement."  Please see <b>addendum No.1.</b>
26.	Kindly clarify whether Annex-E (Power of Attorney to sign the Contract Agreement) be submitted with Technical Proposal or afterwards during contract signing.	It is a sample form for the ease of consultants that shall be submitted by successful consultant at the time of contract signing.
27.	As stated in the RFP 1.1 page 54 that M/s DOHWA Engineering Korea with Prime Engineering & Testing Consultant has done the Feasibility Study and Preliminary Design of Shounter Tunnel. So, please provide the Feasibility Report and Preliminary Design Report of subject project to the Consultants to understand the exact scope of services, location of the project and the feasibility options submitted to the Client already and then provide working strategy and methodology to the Client for Detailed Design of the Shounter Tunnel and Access Roads.	Not acceded to. Please proceed as per RFP.
28.	According to the Clause 3.3.4.1 of the RFP, the International Safety Standards for Tunnels are given which in detail state that the SIMULATION is must requirement to check the minimum Tunnel Safety Requirements, Fire & Smoke Safety Simulation, Vehicle Emission & Sir Demand for Ventilation Safety Simulation, Human Factor & Road Tunnel Safety Simulation, Electrical & Mechanical (E&M) Safety Simulation which is according to the PIARC rules and regulation. Hence, this safety checks to simulate the design for analysis is not available in Pakistan and shall be performed by International Consultant which ultimately has huge cost to perform this activity. So if Client agree with the simulation of tunnel safety during detailed design then we have to incorporate the cost in financial proposal. Please	Agreed. Please refer to <b>Addendum No.1.</b>



Sr. No	Queries	Reply
	advise so that financial proposal shall be preparing accordingly with inclusion or exclusion of this particular cost.	
29.	<p>Clause 3.1.4 of Data Sheet (Minimum Requirement of Educational and Experience of Key Personnel/ Non Key Personnel).</p> <p>Key Personnel/ Non-Key Personnel: Master Degree Required in Key Personals, it should be specified in BSc. Engg. (Civil/ relevant) having longer experience in relevant field. Similarly, in RFP three Junior Engineers of various fields with Master Degree and seven years' experience is required. It is suggested to reduce the Experience and qualification of Junior Engineers to Maximum experience five years with Bsc and 3 Years with MSc.</p>	Not acceded to. Please proceed as per RFP.



**ADDENDUM No.1****Consultancy Services for Detailed Design and Preparation of PC-I for Construction of Road between Shounter to Rattu along with Tunnel at Shounter**

Following amendments have been made in the Request for Proposal (RFP) for subject Services under this Addendum No.1, which shall be read and construed as an integral part of RFP and shall take precedence in case of any conflict(s)/ambiguity(s) amongst this Addendum No.1 and other provisions of the RFP.

**1. Data Sheet:**

Refer page-18, Direct (Non-Salary) Costs: the quantity of items at Sr. No. 1 & 2 is reduced from 13 to 3; therefore, the entire "Page-18" is deleted and replaced with the revised "Page-18" attached as **Attachment-1**.

**2. Financial Proposal Forms:**

(i) Refer page-49, Direct (Non-Salary) Costs: the quantity of items at Sr. No. 1 & 2 is reduced from 13 to 3; therefore, the entire "Page-49" is deleted and replaced with the revised "Page-49" attached as **Attachment-2**.

(ii) Refer page-50, Direct (Non-Salary) Costs: the items at Sr. No. 24 & 25 have been amended; therefore, the entire "Page-50" is deleted and replaced with the revised "Page-50" attached as **Attachment-3**.

(iii) Refer page-51, Direct (Non-Salary) Costs: the item at Sr. No. 32 has been amended and new items (02 Nos.) have been added; therefore, the entire "Page-51" is deleted and replaced with the revised "Page-51" attached as **Attachment-4**.

**3. Appendix-A (Terms of Reference):**

(i) Refer page 97-99: The Mode of Payment is deleted and replaced with the revised Mode of Payment attached as **Attachment-5**.

(ii) Refer pages-104 to 112, Chapter-4, Environmental Impact Assessment of Roads/Highways Projects: the entire pages from 104 to 112 stands deleted.

4. All other terms and conditions shall remain same.

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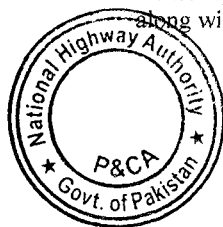
6.3	<p>Add following at the end of this Para:</p> <p>The final person-months of each expert, if required, are subject to adjustment at the stage of contract negotiation in line with demonstrated approaches methodology and need basis.</p>
6.5	<p>Add following at the end of this Para:</p> <p>The Consultant is bound to replace all the Key Personnel proposed who scored less than 70% marks in the Personnel Evaluation, if the Client so requests. If the Consultant refuses to replace such Key Personnel, the Client reserves the right to reject its proposal and invite the Consultant that received the second highest score in ranking to Contract negotiations.</p>
7.2	The assignment is expected to commence in: <b>April, 2022</b>
8	The Clause is deleted in its entirety



## DIRECT (NON-SALARY) COSTS

Sr. No.	Nomenclature	Unit	Qty.	Unit Price (Rs.)	Total Amount (Rs.)
<b>A- LOCAL CONSULTANT PART</b>					
A-1: Office at Islamabad					
1	Consultant's Coordination Office at Islamabad including utilities, janitorial services and office Boy	L.S. Per month	3		
2	Vehicle for local executives & expatriate including maintenance and driver	L.S. Per vehicle month	3		
3	Per Diems for locals for Site Visit	Person-days	60		
A-2: Office cum Residence at Muzaffarabad					
4	Office cum Residence including utilities, janitorial services and office Boy cum Guard and rent for Generator	L.S. Per month	3		
5	Four (4) wheel drive Vehicle for Expatriate including maintenance and driver	L.S. Per vehicle month	1		
6	Four (4) wheel drive Vehicle for Survey Team including maintenance and driver	L.S. Per vehicle month	3		
7	Four (4) wheel drive Vehicle for Geologist/ Tunnel Engineer including maintenance and driver	L.S. Per vehicle month	3		
A-3: Office cum Residence at Gilgit					
8	Office cum Residence including utilities, janitorial services and office Boy cum Guard and rent for Generator	L.S. Per month	3		
9	Four (4) wheel drive Vehicle for Expatriate including maintenance and driver	L.S. Per vehicle month	1		
10	Four (4) wheel drive Vehicle for Survey Team including maintenance and driver	L.S. Per vehicle month	3		
11	Four (4) wheel drive Vehicle for Geologist/Tunnel Engineer including maintenance and driver	L.S. Per vehicle month	3		
<b>B- INTERNATIONAL/EXPATRIATE CONSULTANT PART</b>					
B-1: Phase-I (Initial Preparation)					
12	Air Ticket (From Consultant Home Country to Islamabad and return)	L.S. Per Ticket	2		

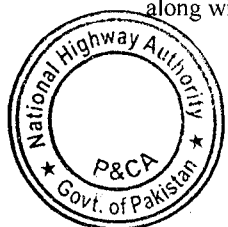
Consultancy Services for Detailed Design and Preparation of PC-1 for Construction of Road between Shounter to Rattu along with Tunnel at Shounter



Sr. No.	Nomenclature	Unit	Qty.	Unit Price (Rs.)	Total Amount (Rs.)
13	Per Diems	Man-Days	60		
<b>B-2: Phase-II-A (Field Work)</b>					
14	Air Ticket (From Consultant Home Country to Islamabad and return)	L.S. Per Ticket	7		
15	Per Diems	Man-Days	90		
<b>B-2: Phase-II-B (Snow Survey)</b>					
16	Air Ticket (From Consultant Home Country to Islamabad and return)	L.S. Per Ticket	1		
17	Per Diems	Man-Days	15		
<b>B-3: Phase-III (Feasibility Study)</b>					
18	Air Ticket (From Consultant Home Country to Islamabad and return)	L.S. Per Ticket	3		
19	Per Diems	Man-Days	20		
<b>B-4: Phase-IV (Design &amp; Documentation)</b>					
20	Air Ticket (From Consultant Home Country to Islamabad and return)	L.S. Per Ticket	2		
21	Per Diems	Man-Days	20		
<b>C- Others</b>					
22	Cost of Topographic Survey	L.S.	-		
23	Construction of Survey Monuments	L.S.	-		
24	Geological Survey, Geographical Survey and Material Investigation (Petrographic testing for the overburden samples (100 samples) collected at the cut/side slopes and Tunnel Alignment).	L.S.	-		
25	Core Drilling for Geotechnical Field Investigation at each portal location up to Tunnel Profile about length of 100 meter at each portal site. In addition, drilling is required at slope stability locations, bridges and structures. (A tentative drilling length of about 1000 meter).	P.S	-	-	14,000,000
26	Drafting & Printing of Reports	L.S	-		
27	Updation of the Electro-Mechanical (E&M) Design and Specifications during the construction stage (optional) For Handling of DEM Data, Purchase of <sup>1</sup> :	L.S	-		
28	1 x Workstation (Intel Hexa Core i7 8th Gen / Xeon, 64GB RAM, 1TB SSD, 8GB GPU with OpenGL 3.2 Compatibility, Windows 10 Pro (64-Bits), 24-inch Monitor, Wireless Keyboard and Mouse)	L.S	-		
29	1 x Laptop (Intel Hexa Core i7 8th Gen / Xeon, 32GB RAM, 1TB SSD, 4GB GPU with OpenGL 3.2 Compatibility, Windows 10 Pro 64-bits)	L.S	-		

Consultancy Services for Detailed Design and Preparation of PC-1 for Construction of Road between Shounter to Rattu along with Tunnel at Shounter

-50-



Sr. No.	Nomenclature	Unit	Qty.	Unit Price (Rs.)	Total Amount (Rs.)
30	Satellite Images (2.5 m) & DEM (5.0 m) (Triple Sat) (Archive/ Fresh based on availability) including Ground Control Points (150 Sq Km)	L.S	-		
31	Drone with Camera for Alignment Alternative/ Tunnel Study (DJI Phantom Pro 4 or Equivalent with Pix4D software subscription for 6 months)	L.S	-		
32	Seismic refraction and electromagnetic survey at Tunnel and Bridges	P.S	-	-	2,000,000
33	Highway Safety Audit including Cost of Site Visits, Report Writing, Salary of Highway Safety Engineer & its team, etc. (complete in all respect) including 3 <sup>rd</sup> part Validation	L.S	-		
34	Design of Portal Facilities	L.S			
35	International Safety Standards (Simulation of tunnel safety)	P.S			3,000,000
36	Others not covered above to comply with TOR requirement*	L.S			
<b>Total</b>					

## NOTE:

\* Any additional item/ cost quoted against these line items must be supported by solid/ tenable justification(s) detailed in Technical Proposal Submission Form A-4 "Comments on TOR" without indicating financial value therein. The negotiation committee of the Client may negotiate this cost on the basis of justification provided in the form A-4 with the prospective successful bidder in the light of Clause ITC 6.6 of RFP. Moreover, if no justification is given or Client does not agree to the justifications, the Client in both the cases **shall not** include this cost in the total cost offered by the Consultants for this assignment, particularly in case any amount against these line items is deemed to have been covered in other pay items.

Cost quoted against lump sum items (mentioned in above table) is all inclusive and remuneration of staff shall not be charged separately.



### 3.9 MODE OF PAYMENT:

“A” is to be calculated by excluding all Provisional Sum and Lump Sum items from Contract cost.

Sr. No.	Description	% age of “A”
1.	Inception Report	5%
2.	Reconnaissance visit and Alignment Study Report including all the requirements spelled out in the TOR along with recommendations.	5%
3.	Acquisition of Satellite Imagery and DEM	L.S
4.	Updated/finalized Feasibility Study Report	5%
5.	Topographic Survey Drawings & Report	L.S
6.	Traffic Survey Report	4%
7.	Axle Load Survey Report	4%
8.	Pavement Design Report	5%
9.	Geometric Design Report & Drawings	5%
10.	Structure Design Report & Drawings	5%
11.	Slope Stabilization & Protection Measures Report	5%
12.	Soil and Material Investigation Report	5%
13.	Tunnel Design Report & Drawings including E&M Works	7%
14.	Geological Survey & Mapping for Tunnels	L.S
15.	Geo-technical Investigations Report(Bridges, Retaining Walls, Slope Stability Works, etc)	P.S
16.	Drilling/Geo-technical Investigations Report for Tunnels	P.S
17.	Hydrology & Hydraulic Study Report	4%
18.	Highway Safety Audit Report (Planning + Detailed Design Stage)	L.S
19.	Stake out of alignment on ground / Ground Validation.	4%
20.	Land Acquisition & relocation of Utility Infrastructure Folders and ROW Plans showing the alignment and total area to be acquired, if required	5%
21.	Construction Machinery Report	1%
22.	Seismic refraction and electromagnetic survey at Tunnel and Bridges	P.S



Sr. No.	Description	% age of "A"
23.	Design of Portal Facilities	L.S
24.	International Safety Standards (Simulation of tunnel safety)	P.S
25.	Final Tender Documents & Drawings (Volume I – IV) including BOQ, Engineer's Estimate, C-factor, Special Provisions along with Backup / Design Calculations in hard and soft (pdf + CAD file)	10%
26.	Mass Haul Diagram	2%
27.	Drainage plan for surface runoff and urban areas	1%
28.	Final Design Report (including detailed Structural, Geometric, Tunnel, Hydraulic, Pavement Design & Slope Stabilization along with Backup calculations)	8%
29.	PC-1 Land	5%
30.	PC-1 Works	5%
<b>TOTAL</b>		<b>100%</b>

Upon checking the report that it is in line with the TOR, 50% payment shall be released. Remaining shall be released upon acceptable quality is ensured. Upon initial submission, a checklist correlating to TOR requirement shall be attached and checked for requirement spelled out.

Final payment shall not be cleared until Consultant gives a satisfactory final report and until consultant submits soft copies of all documents/reports/drawings. Furthermore no Extension of Time shall be required for the balance payments against each report.

