

**GOVERNMENT OF ARUNACHAL PRADESH**  
**PUBLIC WORKS DEPARTMENT**

Telephone No: 0360-2290543

Email id: [cehwzone@gmail.com](mailto:cehwzone@gmail.com)

No.CEAP(HW)E/Z)/WTC-141/DPR/2014-15/6908-11

OFFICE OF THE CHIEF ENGINEER,

HIGHWAYS EAST ZONE, PWD ,AP,ITANAGAR-791111.

Dated 23/03/2015.

**Notice Inviting Tender from Ministry's Empanelled Consultants.**

The Chief Engineer, Highways East Zone, PWD, AP, invites sealed bids for the following work from the **Empanelled Consultants of Category-(1B) of MoRTH** for highway projects:

Sl.No.	Name of work	Bid Security ( in Rs)
1.	Consultancy Services for Preparation of Detailed Project Report (DPR) for Two Lanning of Hukanjuri to Khonsa road NH-315A section in the state of Arunachal Pradesh.	50,000.00

TOR/REP document is available online on PWD Arunachal Pradesh portal <http://www.arunachalhighway.org> from 01.04.2015 to 25.04.2015 (up to 1500 hrs). The same can also be obtained from the office of Chief Engineer on any working day. The TOR/REP document must be accompanied with a non-refundable fee of Rs. 10,000 ( Rupees ten thousand only) as REP document fee in the form of demand draft or banker's cheque drawn on any Nationalized / scheduled Bank in India in favor of **Executive Engineer, Khonsa Highway Division** payable at **Khonsa, Tirap District, Arunachal Pradesh**.

The Applicant shall furnish as part of its proposal, a bid security of Rs. 50,000/- (Rupees Fifty Thousand only) in the form of Demand Draft issued by any of the Nationalized / Scheduled Banks in India in favor of the **Executive Engineer, Khonsa Highway Division** payable at Khonsa (the Bid Security") returnable not later than 135 (one thirty five) days from Proposal Due Date (PDD).

Bid must be submitted offline in hard copy only to '**The Chief Engineer, Highway Eastern Zone, PWD, Mowb-II, Itanagar-791111, Arunachal Pradesh** on or before 25.04.2015 (up to 1500 hrs IST). Bid can be submitted either .through post or through other reliable means.

Instructions to applicants regarding tendering process:

- The interested applicants from the list of **empanelled consultants by Ministry for Category-IB consultants** can download the TOR/REP document from PWD, Arunachal Pradesh portal <http://www.arunachalhighway.org> or obtain the documents from the office of Chief Engineer, Highway Eastern Zone on any working day.
- The applicants have to submit their bids including Bid Security in original to the Chief Engineer office (Eastern zone Highway).
- The applicants have to submit their technical proposal, fee & Bid Security in hard copy (original) on or before 1500 hrs on 25.04.2015 in the office of the Chief Engineer, Highway Eastern Zone, Itanagar. If the office happens to be closed on the last date of submission of Bid in hard copy as specified, the Bid will be received on the next working day at the Office mentioned above. In case the Bid security is not received with the Bid within specified time, the Bid shall be considered non responsive and shall be rejected without opening/evaluation.

Bids shall be strictly treated as non-responsive if bid is not accompanied by an acceptable bid security.

- (d) Before submission of bids, applicants must ensure to visit the project site of Hukanjuri-Khonsa road and contact EE Khonsa for any information and assistance.
- (e) The Chief Engineer, Highway Eastern Zone shall not be responsible for delay in submission/receipt of Bids due to any reason whatsoever.
- (f) All documents/enclosures submitted by the bidder must be legible else the same is liable for rejection.
- (g) The Bidder must quote **rate of Consultancy job in Rupees per Km** of the road inclusive of all taxes both in figure and numerical words after site cerification.

The following are the important dates for award of above consultancy work:

SL.No	Event Description	Date
1.	Last date for receiving queries /clarifications	15.04.2015( 1500 Hrs)
2.	Pre-Bid conference (Pre –bid Meet).	16.04.2015 at CE office ( 1500 Hrs)
3.	Authority response to queries	18.04.2015
4.	Proposal Due Date ( PDD)	25.04.2015 ( 1500 Hrs)
5.	Opening of Proposals	30.04.2015 ( 1500 Hrs)

**Communications:** All communications including the submission of **Fee and Bid Security** should be addressed to:

**The Chief Engineer,  
Highways East Zone, Mowb-II,  
PWD, AP, Itanagar  
Pin No: 791111.  
Arunachal Pradesh.**

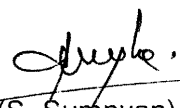
Sd/-  
(T. Basar)  
Chief Engineer,Highways  
East Zone, PWD,AP,Itanagar  
PH No: 0360-2290543.

No.CEAP(HW)E/Z)/WTC-141/DPR/2014-15/6908-11

Dated 23/03/2015.

Copy to:-

1. The Chief Engineer, PWD Highway (WZ) / EZ / WZ / CZ-'A' / CZ- 'B' / SID&P / CSQ / Coord & Training.
2. The Regional Officer, MoRT&H, Itanagar.
3. The Executive Engineer, Highways, Pasighat / Jairampur / Khonsa / Naharlagun / Doimukh.
4. ✓ Category-I (B) Empanelled DPR consultants of MoRT&H.

  
(S. Sumnyan)  
Superintending Engineer  
For Chief Engineer, Highways  
Eastern Zone, PWD  
Itanagar

GENERAL TERMS OF REFERENCE (TOR) FOR CONSULTANCY SERVICES FOR  
PREPARATION OF DETAILED PROJECT REPORTS FOR DOUBLE LANING OF  
HUKANJURI-KHONSA ROAD (35 KM), NH-315A IN ARUNACHAL PRADESH.

**1. Background:**

The PWD, Arunachal Pradesh has been entrusted with the implementation of the double lanning programme of National Highway Road Projects in Arunachal Pradesh. The Terms of Reference (ToR) has been prepared for 'Consultation Services for preparation of detailed project report (DPR) for Two Lanning of Hukanjuri to Khonsa NH-315A section in the state of Arunachal Pradesh'. This road stretch of 35.00 Km is a part of NH-315A from Tinsukia in Assam to District HQ Khonsa in Tirap District of Arunachal Pradesh. The alignment of the proposed road traverses along hilly terrain. There are no huge water gaps except small river streams for few minor bridges.

On approval of DPR this Road Projects shall be funded by the Ministry of Shipping, Road Transport and Highways, Government of India, New Delhi. The nodal authority for implementation of the Road Projects assigned to PWD, Arunachal Pradesh is the Chief Engineer, Highway Eastern Zone. The Department intends to engage qualified consultants of MoRTH's empanelled (consultants) for which the General Terms of References (TOR) have been framed as under. This will cater to the pre-construction activities related to the survey and preparation of segmental strip plans and Detailed Project Report (DPR) supported by geometric design and working drawings of the road and other appurtenances like bridges, cross-drainage structures, road protection works, pavement etc as per latest edition of Specifications of Road and Bridge works of Ministry of Shipping, Road Transport and Highways.

**2. Project Information:**

The Road Projects are generally located in hilly terrain of Arunachal Pradesh and are existing roads of ODR Standard, which will require substantive improvement works for upgradation to double lane configuration. The existing formation width varies from 5.95 m to 7.50 m with carriageway width of 5.50 metres. However, since the roads were constructed long back with ODR standard, some sections of the existing road will require substantive re-grading including re-alignment as per 2-Lane NH standards. There are locations, where re-alignment with fresh earth cutting/filling will be required for avoiding sharp jigs and curves and areas prone to land-slides beside geometric correction. For the purposes of double laning, a uniform ROW of 24.00 metres for open area and 20.00 metres

for built-up areas shall be required for which additional land beyond the existing formation widths shall be acquired. Bridges, cross-drainage works, road protection structures, drains and road pavement shall have to be constructed afresh to suit latest specifications of Roads & Bridges of MoRTH. In many places longitudinal gradients shall be corrected to conform to NH standards.

### 3. **Objective:**

The primary objectives of the study are as under:-

- (i) To conduct road survey using **total stations/other accepted** means for the designated road stretch and evolve the best possible alignment of the proposed double lane road connecting all possible obligatory points considering construction economy.
- (ii) To evolve Strip Plan @ one kilometer of the proposed road after finalizing the best possible alignment and indicate therein all the infrastructural assets/utilities/land for further acquisition of ROW that are required to be shifted and relocated. A way-side land use pattern indicating the design chainages is also required to be evolved. All such chainage-wise assets to be marked and plotted in legible scale on the strip plan for assessment of compensation estimate.
- (iii) To prepare the detailed engineering working design and drawings of proposed road, bridges, culverts, protection works and other road appurtenances including road furniture and prepare Detailed Project Report (DPR) for obtaining sanction of the project from MoRTH, New Delhi.

### 4. **Scope of the Consultancy Services:**

The scope of the consultancy service is to:

- (i) Conduct preliminary and detailed survey including reconnaissance, preliminary survey, pegging and trace cutting, final survey etc. through Total Stations as per IRC: 52 and IRC: SP: 48.
- (ii) Collect inventory data and to conduct condition survey of roads, bridges, culverts etc as per IRC SP: 19-2001 and compile the information in the proforma given in appendix of IRC SP:19-2001 and in an acceptable computerized data base format.
- (iii) Prepare the best possible horizontal and vertical alignment of the road after attending to aspects of re-grading of the existing surface and proposals of re-alignment of the road requiring fresh cutting/filling.
- (iv) Prepare strip plan showing the existing road land width(distinctly marked), utility services (both above and below ground level), trees, electric poles, telephone poles,

water pipeline, sewer line, bridges, culverts, junctions, telephone cables, adjoining land use, encroachment etc. in digitized format. The strip plan should indicate existing and proposed alignment and utilities as described above may be indicated in respect to the Final alignment of the road.

- (v) Determine the composition and thickness of existing pavement and carry out condition survey of the existing road appurtenances and recommend appropriate pavement based on traffic survey..
- (vi) Conduct representative CBR test on the existing sub-grade as per IRC: 37 in alternate kilometers.
- (vii) Do drainage studies indicating general drainage pattern, HFL, water level, seepage flow, etc and prepare drainage design as per IRC guidelines.
- (viii) Do investigation for naturally occurring materials and identify suitable quarries for road construction materials including leads.
- ix) Conduct tests for the physical strength characteristics of aggregate materials as per relevant IRC standard.
- x) Conduct sub-soil investigations and hydraulic studies for all bridges beyond 10 m span. Payment for sub soil investigation of bridges shall be made on the actual quantity of boring/sub-soil investigation.
- xi) Prepare Detailed Design of road including bridges complete in all respect including the geometric design of road, pavement, culverts and road protection works etc. Overlay design of pavements wherever necessary may be suggested after conducting Benkelman Beam Test as per IRC-81. The pavement profile should correspond to the specifications of Double lane NH Standards.
- xii) Prepare detailed working drawings good for construction using MX, CAD, other suitable software etc., containing all details required for execution of the project.
- xiii) Prepare the Detailed Project Report of the Road Project covering the aspects indicated above for the purpose of obtaining sanction from the Central Ministry and in accordance with Road Ministry's guidelines.
- (xiv) Prepare Bill of Quantities and estimate on current SOR of the Arunachal Pradesh PWD which shall form part of the Detailed Project Report. Wherever necessary, rate analysis be adopted to arrive at workable costs.
- (xv) Assist the Department in appraising the Central Ministry about the aspects covered in the Detailed Project Report in clarification and obtaining sanction.
- (xvi) Assist the Department in Pre-Bid Meeting for replying to queries raised by the

Prospective bidders pertaining to provisions and concepts adopted in the Detailed Project Report (DPR).

- (xvii) Prepare sector wise forest / wildlife proposals for diversion of forest land (Forest clearance) for construction of project road and MoEF approval in consultation with the department.
- (xviii) Prepare cost estimate of compensation assessment of various private / public assets falling on the ROW including strip plan indicating the assets for submission to Road Ministry in consultation with department.
- (xix) To remain associated with the department during the execution of the Road Projects for clarification of the survey and road design data to the Road Developers in consultation with the Department during the period of construction.

## **5. Sequencing of Report Preparation:**

The project preparation activities will be split into stages as brought out below. Each stage will cover a set of activities and shall be followed with a detailed report in respect of each stage. Time schedule in respect of all such activities will be indicated. Consultant shall be required to complete the same to the satisfaction of the client in all the different stages of study with the time frame indicated in the schedule of submission.

The stages are:

### **Stage 1: Inception Report.**

A comprehensive inception report shall cover the following:-

- i) Survey and investigation methodology.
- ii) Project engineering.
- iii) Schedule of works indicating various activities.
- iv) Key persons to be engaged in the projects.

### **Stage II: Preliminary Project Reports:**

The preliminary project report shall cover the following:

- (i) Alignment plan, longitudinal plan and representative cross section of formation work.
- (ii) Existing Road inventory and pavement condition assessment in standard format prescribed by IRC:SP 19:2001.
- (iv) Draft Strip Plan after finalization of the alignment.
- (v) Sub-Soil Investigation Report for Bridges.

- (vi) Draft DPR containing the survey data, interpretation of the tests and investigations conducted, pavement profile, design of pavement and other road structures including bridges, quarry location with lead, and preliminary cost estimation.

In nutshell the preliminary report shall be prepared as per the guidelines for preparation of project report contained in IRC: SP: 19 – 2001 covering the points mentioned above which need approval of the client( Chief Engineer, Highway Eastern Zone) for further detailed project preparation.

### **Stage III : Final Report:**

On conveying of approval on the **draft report** by the department (PWD), the **final report** of the project shall be prepared incorporating the modification and correction suggested by the department. The detailed final project report shall be prepared as per the guidelines given in IRC: SP: 19-2001, Para 17 covering the relevant points of reports, estimate and drawings.

## **6. Services and Facilities to be provided by the Govt.:**

The department shall provide the facilities like, topographical maps and detailed statistics of the area as available in the department. Further, the Department shall share all available information of the proposed road with the consultant. The Department shall also recommend/arrange inner-line passes and paid accommodation for staff of the consultant involved in this consultancy job. The financial proposal of the consultant appointed is deemed to be inclusive of all other incidental charges to the survey, study and preparation of the projects reports.

## **7. Reports:**

The consultants shall furnish to the client the following report and documents. All reports and documents shall be in English.

- (i) Inception report - 3 copies
- (ii) Draft preliminary report - 3 copies
- (iii) Final report - 12 copies in A-2 size (including 1 soft copy CD)

## **8. Time Schedule of Services (10 months):**

- i) Submission of inception report - 60 days from the date of start.
- ii) Submission of draft report - 180 days from the date of approval of inception report.

- iii) Submission of final report - 60 days from the date of approval of draft report.

**9. Payment Schedule:**

A. Payment schedule for the work will be as follows:

- i) Mobilisation advance - 10% of the total contract amount with interest.
- ii) Submission of inception report - 20% of contract amount
- iii) Submission of Draft Report- 25% of contract amount
- iv) Submission of Final Report- 35% of contract amount
- v) Approval of Final Report- 10% of contract amount.

B. For sub-soil investigation of Bridges, the payment schedule shall be finalized on receipt of cost offer from the consultant.

Any under prepared, incomplete/inadequate or part submittal shall be deemed as invalid submittal. The adequacy of the submittal shall be determined at the sole discretion of the client/Chief Engineer (Highway E/Z). Client will generally accord approval within 30 days of submission of reports.

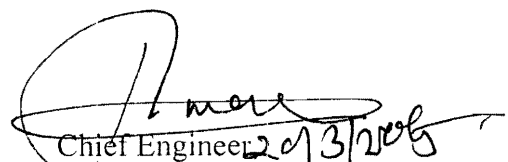
The Payment to the consultant will be subject to sanction of the competent authority and availability of fund.

**10. Performance security:**

Within 21 days of the letter of acceptance, the consultant shall deliver to the employer a performance security in the form of bank guarantee for an amount equivalent to 5% of the contract price valid for one year.

**11. Responsibility for Accuracy of Project Reports:**

The consultants shall be responsible for accuracy of all the data used in project preparation and estimates prepared by him as part of the project. He shall indemnify the client against any inaccuracies in the job /work. For this purpose, the bank guarantee of 5% submitted as performance security shall be released on accord of "in principle approval" of the DPR by the Ministry of Shipping, Road Transport and Highways, Government of India, New Delhi or one year after submission of the final DPR, whichever is earlier.

  
 Chief Engineer 2 of 3/2018  
 Highway Eastern Zone, PWD,  
 Itanagar

**CATEGORY - I (B) Feasibility study and Detailed project preparation for all type of highway projects consisting of all types of bridges/grade separators except bridges with innovative design such as cable stayed, suspension bridge, etc.**

S.No	Name of consultant	Address	Phone/Fax/E-mail	Contact Person
1	3G CONSULTANTS	40, 2ND FLOOR, BALAJI TOWERS, ADICHUNCHAGIRI ROAD, J.T.K LAYOUT, KUVEMPUNAGAR, MYSORE - 570023	Ph. 0821-4256605 Email- <a href="mailto:cons3g@gmail.com">cons3g@gmail.com</a>	Mr. Parakash .M.K
2	ALLIANCE ENGINEERS & CONSULTANTS	H.NO.6, T.K.D. ALOY, OPPOSITE SBI CHANDMARI BRANCH, MRD ROAD, CHANDMARI, GUWHATI-781021	Ph. 0361-2659922 Email- <a href="mailto:cyberchang2000@gmail.com">cyberchang2000@gmail.com</a> , <a href="mailto:cyberchang2000@co.in">cyberchang2000@co.in</a>	Mr. Trideep Changmai
3	ARKITECHNO CONSULTANTS (INDIA) PRIVATE LTD	N - 3/91, IRC VILLAGE, NAYAPALLI, BHUBANESWAR - 751015	Ph-0674-2553689, Email- <a href="mailto:business@arkitechno.com">business@arkitechno.com</a>	Mr. Rajesh Roy Choudhury
4	AUSHTA CONSULTING ENGINEERS (INDIA) PVT. LTD	AUSHTA HOUSE- 623, SECTOR-21B FARIDABAD HARYANA- 121001 INDIA.	Ph.-+91-129-6541555 Email- <a href="mailto:consultant@austa.com">consultant@austa.com</a>	Mr. Deepak Kapil
6	HIGHWAY ENGINEERING	JM -89/3C BEHIND PANCHWATI MARKET, BHOPAL	Ph: 0755-4236317, 09826452711, 09617777529 Email id: <a href="mailto:hec_bhopal@rediffmail.com">hec_bhopal@rediffmail.com</a>	Mr. S.N. Malviya
7	HN BUSINESS CONSULTANTS PVT LTD	SB 37, NAGA SHOPPING, ARCADE, KOHIMA ROAD, DIMAPUR-797112	Ph: +911126533690, 26523054 Email id: <a href="mailto:info@hnbc.co.in">info@hnbc.co.in</a>	Mrs. Deepika Naga
8	INFRA SUPPORT ENGINEERING CONSULTANTS PVT. LTD.	934, 3RD CROSS, HRBR LAYOUT, 1ST BLOCK, KALYANA NAGAR, BANGALORE	Ph : 80 - 25421364 E-mail - <a href="mailto:corporate@infrasupport.in">corporate@infrasupport.in</a>	Mr. Rathnakara Reddy K. B.
9	INFRASTRUCUTRE DEVELOPMENT CONSULTANTS	285, ROHIT NAGAR, PHASE - I E - 8 EXTENSION, NEAR GULMOHAR COLONY BHOPAL - M.P. - 462039	Ph : 09826028182 E-mail : <a href="mailto:idc@idc-india.com">idc@idc-india.com</a>	Mr. Abhi Kumar Khare
10	KAILASH NATH SONI	168-B ABUDU COMPLEX, GREEN PARL COLONY NEAR DIB BUNGLOW, BERASIYA ROAD, BHOPAL-462018	Ph- +91-9893067441	Mr. Kailashnath Soni

*Am..*

11	MEDHAJ TECHNO CONCEPT (P) LTD.	MEDHAJ TOWER, CP-150, SECTOR-D1, POWER HOUSE CHAURHA, AASHIAN, KANPUR ROAD,LUCKNOW-226012	Ph- +91-522-2425912 Email-mtcpl@medhaj.com	Ms. Kratika Sharma
12	MULTI MEDIA CONSULTANTS PVT. LTD.	MULTI HOUSE, LANE NEXTTO C.N. VIDHYALAYA, B/H. RELIANCE PETROL PUMP, AMBAWADI, AHMEDABAD-380006	Ph:079-26423671, Email- mmcepl@vsnl.net	Mr. Apurva N. Parikh
13	RESOTECH CONSULTANCY SERVICES PVT. LTD.	58, SHREE MANGAL NAGER, NEAR ELITE ANMOL MULTI, BICHOLI HAPSI ROAD, INDORE (M.P) 452018	Ph: 0731-2596024 Email: contact@resotechindia.co m	Mr. Rajnish Mishra
14	SOWIL LIMITED	D – 157, SECTOR – 7, NOIDA	Ph : 0120 – 4232757 - 59 E-mail : north@sowillimited.com	Mr. Ajay Kumar Gupta
15	SUVADRA CONSULTANT	PP-97, TANKAPANI ROAD, BHUBANESHWAR-18 KHURDA	Ph-0674-2432090, Email- suvadraconsultants@gma il.com	Mr. Surya Rath
16	TECHNOGEM CONSULTANTS (P) Ltd.	101,A&B,DEVMILAN BUILDING,OPP.RAHEJA GARDEN,NEAR TIP TOP PLAZA,L.B.S MARG,THANE	Ph. 022-67997145 Email- <u>technogem@rediffmail.co</u> <u>m</u>	Mr. U.S.Kalgutkar Mr. R.R. Chonkar Mrs. A.U.Kalgutkar
17	VAX CONSULTANTS PVT LTD	NO.18, GANGA AMMAN KOIL 4TH STREET, VADAPALANI, CHENNAI- 600026	Ph: 044-2372-0120/0260 Email id: vaxcon@rediffmail.com	Mr. V.V.Viswanadh

*Am.*