### GOVERNMENT OF JHARKHAND ROAD CONSTRUCTION DEPARTMENT (RCD)

Subject: APPLICATION FOR EMPANELMENT OF CONSULTANTS.

**Road Construction Department (RCD)** intends to invite applications for the empanelment of consultants for three years under the following categories.

**CATEGORY – I** Project preparation for all types of highway projects including Bridges/flyovers/grade separators etc.

**CATEGORY-II** Project preparation for all types of bridges/flyovers/ grade separators etc including approaches.

**CATEGORY-III** Bridge Inspection & Rehabilitation

**CATEGORY IV** Geo-technical investigation for highway and bridge projects, high

embankments.

**CATEGORY V** Traffic & Transportation Studies.

**CATEGORY VI** Construction supervision of all types of Highway Projects.

**CATEGORY VII** Construction supervision of all types bridges/flyovers/grade separators including approaches.

- 2. Consulting firms interested in empanelment can have the application format from the office of the Engineer-in-Chief ,Road Construction Department, 4<sup>th</sup> Floor, Jharkhand Mantralaya, Dhurwa , Ranchi , 834004 on payment of Rs 10000/-(ten thousand )(non-refundable) in the form of DD of scheduled bank in favour of Executive Engineer,RCD, Field Survey Division, Advance Planning, Ranchi payable at Ranchi. The application format can also be downloaded from the website www.jharkhand.gov.in from 14-12-17 to 8-01-18 and the application fee can be deposited along with the submission of application form. The application form without application fee will not be considered.
- The applicants can apply for more than one category in that case they have to pay Rs. 10000/- (ten thousand) for each category separately. The applicants should submit the requisite information for each category separately on or before 8-01-18 upto 1500hrs at the address given below. The applications will be opened on 09-01-18 at 1530 hrs.

Engineer-in-Chief Road Construction Department, 4<sup>th</sup> Floor, Jharkhand Mantralaya (Project Bhavan) Dhurwa, Ranchi, 834004 Ph: 0651-2400747

Fax: 0651-2400747 0651-2400747

#### GOVERNMENT OF JHARKHAND ROAD CONSTRUCTION DEPARTMENT (RCD)

Tel: 0651-2400747 Jharkhand Mantralaya(Project Bhavan), Fax: 0651-2400747 Dhurwa, Ranchi, 834004 Dated 0651-2400243 E-mail: rcd.secy@jharkhand.gov.in To -----. \_\_\_\_\_ APPLICATION FOR EMPANELMENT OF CONSULTANTS. Subject: Sir, Road Construction Department (RCD) intends to invite applications for the empanelment of consultants for three years. 2) Empanelment of experienced and competent consultants shall be considered for investigation, project preparation and construction supervision for State Highways & other Road Projects for the following major seven categories. CATEGORY - I Project preparation for all types of highway projects including Bridges/ flyovers/grade separators etc. **CATEGORY-II** Project preparation for all types of bridges/flyovers/ grade separators etc including approaches **CATEGORY-III** Bridge Inspection & Rehabilitation **CATEGORY-IV** Geo-technical investigation for highway and bridge projects, high embankments **CATEGORY- V** Traffic & Transportation Studies. **CATEGORY- VI** Construction supervision of all types of Highway Projects. **CATEGORY-VII** Construction supervision of all types bridges/flyovers/grade separators etc.

Technical expertise and experience desired from the consultants for various

3.

categories are as under.

#### 3.1 Category – I

The empanelled consultants shall be expected to possess necessary expertise and experience in carrying out feasibility studies, detailed project preparation for new road projects and highway structures as well as widening & strengthening of existing roads. In addition, the consultants are expected to possess expertise and infrastructure for carrying out studies related to traffic and transportation engineering, highway planning and design.

#### 3.2 Category II

Consultants are expected to possess necessary experience in carrying out feasibility studies, detailed project preparation & design of all types of bridge projects/grade separators/ flyovers etc., experience in conceptualizing schemes and in traffic and transportation studies.

#### 3.3 Category III

Consultants are expected to possess necessary expertise, equipments and experience in carrying out inspection and investigation of distressed bridges including non-destructive and partially destructive testing and preparation of repair and rehabilitation plan/estimate for such bridges, flyover and grade separators. Consultants are also expected to possess necessary experience and expertise in supervision of repair & rehabilitation of these types of structures.

#### 3.4 Category- IV

Consultants are expected to possess necessary expertise, equipments and experience in carrying out all types of surface and sub-surface geo-technical exploration according to the guidelines given in section 2400 of Ministry's Specifications for Road and Bridge Works (Fourth Revision). Consultants are expected to possess expertise, facilities and infrastructure for carrying out drilling through rocks, carrying out preliminary exploration by suitable type of sub-surface sounding method, carrying out in situ Vane Shear Test and laboratory test for physical properties, atterberg limits, shear parameters and consolidation properties etc. In addition to this, the consultants are expected to possess expertise, facilities and infrastructure for carrying out investigation for bridge foundations resting on rock by geo-physical methods such as electrical resistivity method, seismic method etc.

#### 3.5 Category-V

Consultants shall be expected to possess necessary expertise and experience in traffic and transportation studies. The personnel should be trained and experienced in all aspects of traffic engineering. This includes collecting and processing traffic data, developing traffic projections, conducting site planning studies, evaluating the impact of new development on an existing roadway network. In addition, the firm may posses the related equipments and infrastructure.

#### 3.6 Category-VI

Consultants shall be expected to possess necessary expertise and experience in construction supervision, construction management, contract management, quality assurance and detailed project preparation including design for highway projects.

#### 3.7 Category-VII

Consultants shall be expected to possess necessary expertise and experience in construction supervision, construction management, contract management, quality assurance and detailed project preparation including design for bridge projects/flyovers/grade separators etc.

## 4 Foreign firms & Joint Venture/Association of Firms :

- 4.1 Foreign firms shall be considered for empanelment only when the firm has a representative office in India.
- 4.2 In case there is a joint venture of two consultant firms (domestic/ foreign), the required information as per Annexure I, II, III, IV & V shall be furnished by each party separately along with joint venture agreement.
- In case of **JV**, the proposal of consultants would be evaluated jointly and the empanelment will be in the joint name. However, in case there is only a proposal of association (domestic/ foreign consultant); **the particulars of the lead firm shall only be evaluated**.
- 4.4 In case of a joint venture/association, the firm, which has more relevant experience, would be the **lead partner** and the lead partner would be responsible for the project and would provide the team leader.
- 4.5 In case of a joint venture the minor partner must have done at least one project conforming to the relevant category for which the empanelment is intended else the JV would be disqualified.

## 5 The applications will be evaluated on the basis of the following broad Criteria

Sl	Item	Max	Maximum Marks					
no								
		Cat	Cat II	Cat	Cat	Cat V	Cat	Cat
		I		III	IV		VI	VII
1	Structure and organisation	100	100	100	100	100	100	100
	of the Firm							
2	Financial status	100	100	100	100	100	100	100
3	Firm's relevant experience	250	250	250	250	350	250	250
4	Qualification and	450	450	350	300	350	450	450
	Experience							
	of Technical Personnel							
5	Office/ Field /Laboratory	100	100	200	250	100	100	100
	equipment facility							
	Total	1000	1000	1000	1000	1000	1000	1000
	Qualifying marks	600	600	600	600	600	600	600

In addition to this, the firms should also score minimum 50% marks in each of the above mentioned categories, otherwise the firm shall not be considered for empanelment

- 6. The firm shall furnish its relevant experience strictly as per format given at Annexure III. The firm must supplement the experience claimed by furnishing the copies of certificates from client, clearly indicating the actual service provided by the firm for that project.
- 7. The firm shall furnish the Curriculum Vitae of the Technical personnel as per format given at Annexure II. The CVs must be signed by Technical personnel and counter-signed by authorized representative in blue ink on each and every page and should not be older than three months from the date of submission of application. Photograph of the Technical personnel shall be affixed on their respective CV. The contact address with telephone / mobile number, e-mail ID of the Technical personnel should also be furnished. The CVs must indicate the actual service provided by the Technical personnel in detail. The retainer Technical personnel if any shall specifically mention the names of other firms also in which he is associated as a retainer. It may be noted that such Technical personnel may be associated as a retainer for a maximum number of 3 firms including the instant firm. A retainer will get only 60 % credit of that of a full time expert.
- 8. It is suggested that the firm should fill up Annexure –I, vis-à-vis the supporting details vide Annexure II, III , IV & V and any other information with due care so as to avoid any ambiguity
- 9. In case spaces available in the Annexure- I, II, III, IV & V are limited to accommodate all the information, separate sheets may be used for the purpose so that relevant information submitted are sufficient, neat and legible.
- 10. The applications not complying with the above mentioned stipulations and found to be deficient in any respect shall be summarily rejected.
- 11. Consulting firms should note that only authenticated information should be provided in the prescribed format. Information provided by the consulting firms may be verified and if any of the information provided by the consultant is found incorrect / false, then it may lead to rejection of a firm's proposal summarily at any stage even after empanelment.
- The applicants can apply for more than one category in which case they will have to pay Rs. 10000/- (ten thousand) for each category separately. It may be mentioned that the firm shall be empanelled under a specific category/categories and for each category separate application shall be submitted along with a soft copy of the same. The application should be properly bound, indexed and page numbered and strictly in sequence given in the format at Annexure I. Intending consultants, should submit their application for empanelment to the Engineer-in-Chief ,Road Construction Department, 4<sup>th</sup> Floor, Jharkhand

Mantralaya, Dhurwa , Ranchi , 834004 on or before 8-01-18 upto 1500hrs. The applications will be opened on 9-01-18 at 1530 hrs .

Each page of the Application Form should be stamped and signed by authorized signatory. The authorized signatory must sign all cuttings and corrections. A Certificate of authorization or power of attorney, in original along with a photocopy thereof, by the applicant firm, company or other corporate body, as the case may be, must be enclosed with the Application Form. No Application Form will be considered unless all the required documents are furnished and properly attested wherever required. RCD may obtain clarification wherever required The Application Form must be enclosed in a sealed envelope which must be superscribed with "Application for Empanelment of Consultants"

- RCD reserves the right to reject any or all applications without assigning any reason. After evaluation, a panel of consultants under the seven categories mentioned above will be formed depending on the capacity and experience of the consultants for purpose of obtaining offers for particular projects.
- 14. Notwithstanding the formation of these panels, RCD may go in for separate empanelment for specific assignments, if it so decides.
- Arbitration Clause: In the eventuality of any dispute, the matter shall be referred by any of the parties to Principal Secretary/ Secretary to , RCD, Govt. of Jharkhand for arbitration and his / her decision shall be binding on the parties.
- 16. Jurisdiction: All disputes will be settled within the jurisdiction of High court of Judicature at Ranchi.
- 17. Empanelment of a party does not ensure award of contract for any work / job by the Road Construction Department, Government of Jharkhand or by any other Department, Authority, Board or Corporation of Government of Jharkhand.
- 18. Any authority of the Department, who wishes to obtain such services of a consultant would invite financial bids from the empanelled parties. The empanelled party with the lowest financial bid/quote would thereafter be awarded work on the terms and conditions prescribed by the Department.

  Other Departments, Authority, Boards & PSUs of the State Government may also adopt panel approved by this Department.

Yours fa	ithfully,
(	)
_	-in-Chief tion Department,

## Encl: Annexure I, II, III & IV.

## **ANNEXURE-1**

APPL	APPLICATION PROFORMA FOR EMPANELMENT OF CONSULTANTS		
	General Informations		
	(i) Name and address of the consultant/consulting firm		
	(ii) Whether Pvt. Ltd. Company/JV/Public Co./Others (in case of J.V.,		
	indicate name of lead partner and furnish copy of agreement).		
	(iii) Name of the authorised contact person /representative duly certified		
	by the head of the consulting firm.		
	(iv) Profile of the firm (Please elaborate field of activities)		
	(v) In case of Foreign firm, address of representative office in India with		
	documentary proof from the head office abroad)		
	(vi) In case of foreign firm, certificate for accepting payment in Indian		
	currency		
	(vii) In case of association, indicate the name of lead firm and furnish		
	letter of association.		
1	STRUCTURE & ORGANISATION OF FIRM		
A	Date, month and year of incorporation of Firm		
	NOTE: (i) Furnish a copy of incorporation/registration from appropriate		
	authority. (ii) Firm incorporated/registered after 31.03.2015 shall not be		
	considered		
В	No. of full time technical personnel who are in the payroll of the firm for		
	at least one year as on 30.04.2016 with following qualifications and		
	experience:		
	(i) Masters degree (structure) with minimum 5 years of experience		
	(ii) Masters degree (Traffic &Transportation) with minimum 5 years of		
	experience		
	(iii) Masters degree in any discipline of Civil Engineering with		
	minimum 5 years of experience		
	(iv) Degree(Civil) with minimum 10 years of experience		
	(v) Degree (Civil) with minimum 5 years of experience		
	NOTE: The detailed information regarding technical personnel		
	mentioned above may be furnished as per Annexure-IV.		
2	FINANCIAL STATUS:		
	Average Annual Turnover from consultancy of last three years (Rs. In		
	lakhs .(as per Annexure V) Audited balance sheets must demonstrate the		
	soundness of the consultants/Cosulting Firms financial position,		
	showing positive net worth and profitability in last three financial years.		
	<i>Note</i> : Enclose audited accounts for the last three years in support.		
	2013-14,2014-15, 2016-17(provisional)		
3	FIRM'S RELEVANT EXPERIENCE:		
	Note: Please mention number of projects done by the firm against		
	each of sub-item with documentary proof from client. For each		

	project one sheet of Annexure-III should be filled up properly giving as much as details as possible.	
Catego	ry I : Highway Projects	
Catego	A(i) Experience in Feasibility Study for widening to two lane for a	
	length> 20 km.	
	A(ii) Experience in preparation of DPR of widening to two lane for a	
	length >20 km	
	B(i) Experience in FS of two lane/four lane new alignment or widening	
	to 4 lane/Expressway in a length more than 20 kms.	
	B(ii) Experience in preparation of DPR of two lane/four lane new	
	alignment or widening to 4 lane/Expressway in a length more than 20	
	kms.	
	C. Experience in Survey & Investigation and detailed design of bridge	
	projects.  D. Traffic surveys, Origin-Destination (OD) Survey, Design of Road	
	Junctions/Traffic Circulation Studies etc.	
	Note: In Annexure -III, narrative description of project must	
	include No. of lane, length of project, whether widening or new	
	alignment etc. Under the head actual Service provided by the firm,	
	the firm must clearly mention whether the firm has done only	
	topography survey, traffic survey, feasibility study or complete	
	project preparation.	
Catego	ory-II : Bridge Projects	
	(i) Experience in feasibility study of	
	(a) bridges with overall length greater than 60m with at least one span	
	length greater than 40m	
	(b) bridges with overall length greater than 60m with any span length	
	(other than bridges mentioned under sub item (a) above).	
	(ii) Experience in preparation of DPR of	
	(a) bridges with overall length greater than 60m and with at least one	
	span greater than 40m	
	(b) bridges with overall length greater than 60m with any span length	
	(other than bridges mentioned under sub item (a) above).	
	(iii) Experience in Design review/Proof checking of  (a) bridges with overall length greater than 60m and with at least one	
	span greater than 40m	
	(b) Bridges with overall length greater than 60 m with any span length	
	(other than bridges mentioned under sub item (a) above).	
	Note: In Annexure -III, narrative description of project must	
	include total length of bridge, individual span length, no. of lane (2	
	lane, 4 lane etc.), whether widening or new alignment etc. Under the	
	head service provided by the firm, the firm must clearly mention	
	whether the firm has done only feasibility study, design review/proof	
	checking or complete project preparation.	
Catego	ory-III Bridge Inspection & Rehabilitation	
	(i) Experience in carrying out investigation and testing of major/minor	

	bridges for rehabilitation	
	(ii) Experience in preparation of rehabilitation plan	
	(iii) Supervision of rehabilitation work	
	(III) Supervision of renaomitation work	
Catego	ry-IV: Geo-technical investigation for highway and bridge projects,	
_	nbankment	
	(i) Experience in carrying out subsoil investigation (Exploration,	-
	sampling, testing, recording, reporting and preservation of test samples)	
	for	
	(a) Deep foundation of any Civil Engg. Projects	
	(b) Shallow foundations	
	(ii) Experience in carrying out subsoil investigation for high	
	embankment including stability analysis, determination of CBR etc. and	
	sampling and testing of borrow pit material as per IRC Codes	
	(iii) Experience in road pavement (i.e. condition survey of existing	
	pavements, determination of CBR etc.)	
	(iv) Experience in Geophysical methods	
	(a) Electrical resistivity	
	(b) Seismic method	
	(iv) Experience in Laboratory Testing	
Catego	ry V: Traffic Survey / T&T Studies	
	(i) Experience of conducting survey for road projects for 2 lane	
	widening or a new alignment of length > 20 kms. or minor bridge	
	projects	
	(ii) Experience in Traffic Engineering/Traffic Studies for projects of	
	widening to 2/4 lane/expressway or a 2/4 lane new alignment of length >	
	20	
	kms.	
	(iii) Experience in carrying out traffic & transportation planning studies	
	such as economic studies, cost benefit analysis, road users cost studies,	
	economic feasibility studies etc.	
	(iv) Experience in carrying out traffic census	
	(v) Any additional experience in the field of traffic studies not	
	mentioned above.	
Catego	ry VI: Construction supervision of highway projects	
	A(i) Experience in DPR of widening to two lane in length>20 km.	
	Length	
	A(ii) Experience in construction supervision of widening to two lane in a	
	length >20km. Length	
	B(i) Experience in DPR of two lane/four lane new alignment or	
	widening to 4 lane/Expressway in a length more than 20kms.	
	B(ii) Experience in construction supervision of two lane/four lane new	
	alignment or widening to 4 lane/Expressway in a length more than	
	20kms.	
Catego	ry VII: Construction supervision of bridge projects	
	A(i) Experience in DPR of	
	(a) bridges with overall length greater than 60m and with at least one	
	span greater than 40m.	

	(b) bridges with overall length greater than 60m with any span length	
	other than bridges mentioned under sub item (a) above	
	B(ii) Experience in construction supervision of	
	(a) bridges with overall length greater than 60m and with at least one	
	span greater than 40m.	
	(b) bridges with overall length greater than 60m with any span length	
	other than bridges mentioned under sub item (a) above.	
	Note: In Annexure -III, narrative description of project must	
	include No. of lane, length of project, length of the bridges,	
	individual span length, whether widening or new alignment etc.	
	Under the head Service provided by the firm, the firm must clearly	
	mention whether the firm has done only topography survey, traffic	
	survey, feasibility study, design review/proof checking of design of	
	bridges or complete project preparation.	
4	QUALIFICATIONS AND EXPERIENCE OF TECHNICAL	
	PERSONNEL	
	Note: 1. Minimum academic qualifications shall be degree in Civil	
	Engineering and minimum experience in Highway Engineering shall	
	be five years. The CVs of technical personnel not fulfilling these	
	criteria shall not be evaluated.	
	2. A retainer will get only 60% credit of that of a full time expert.	
4.1	List of technical personnel	
KP1	Highway Engineer	
KP2	Pavement Specialist	
KP3	*	_
	Bridge/Structural Engineer	
KP4	Sr. Traffic Engineer	
KP5	Sr. Survey Engineer	
KP6	Environmental-cum-Resettlement Specialist	
KP7	Foundation Engineer/Geotechnical Engineer	
KP8	Transport Planner	
KP9	CAD Specialist	
KP10	Geologist	
KP11	Contract Manager	
KP12	Bridge Rehabilitation Specialist	
KP13	Material Engineer-cum-Quality Control Engineer	
4.2	Essential Technical Personnel required for various categories are as	
	follows:	
	(i) Category I: KP1 to KP9 – One No. each	
	(ii) Category II: KP3 – 2 Nos. & KP2, KP5, KP7, KP9 – One No.	
	each.	
	(iii) Category III: KP3, KP7, KP12 & KP13 – One No. each.	
	(iv) Category IV: KP7 – Two Nos. & KP10 – One No.	
	(v) Category V: KP 4, KP 5, KP 8 &KP 9- One No each.	
	(vi) Category VI: KP1, KP2, KP3, KP5, KP6, KP7, KP9, KP11 &	
	KP13- One No. each.	
	(vii) Category VII: KP3, KP5, KP7, KP9, KP10, KP11, KP12, KP13-	
	One No. each.	
4.3	Experience and qualifications required for Technical Personnel.	

KP1	Highway Engineer	
<b>A.</b>	Academic Qualification	
	Degree in Civil Engineering	
	Masters degree in Highway/Transportation Engineering	
B.	Profession Related Experience	
B1	No. of years of Professional Experience in Highway Engineering	Years
<b>B2</b>	Experience in FS and project preparation of widening to 4- lane/	Projects
	expressway or 4-lane new alignment of length >20 kms	
В3	Experience in FS and DPR of widening to 2- lane new alignment of	Projects
	length > 20 kms.	
<b>B4</b>	Experience in proof checking / Peer review of DPR	Projects
<b>B5</b>	Experience in construction supervision of widening to 4	Projects
	lane/expressways or new alignment of length > 20 kms.	
B6	Experience in construction supervision of widening to 2 lane or 2 lane	Projects
	new alignment of length >20 kms.	
B7	Experience as Independent Engineer for BOT/ PPP Projects	Projects
KP-2	Pavement Specialist	
A	Academic Qualifications	
	Degree in Civil Engineering	
	Masters degree in other Civil Engg.Disciplines	
	Masters degree in Highway/Geo-technical/Foundation Engineering	
В	Profession Related Experience	
<b>B</b> 1	No. of years of Professional Experience in Highway Engineering	Years
<b>B2</b>	Experience in pavement design or construction supervision of widening	Projects
	to 4 lane/expressways or 4 lane new alignment of length. 20 Kms.	
<b>B3</b>	Experience in proof checking for widening to 4 lane/expressways or 4	Projects
	lane new alignment of length. 20 Kms. As well as in widening to 2 lane	
	or 2 lane new alignment of length > 20 kms.	
<b>B4</b>	Experience in pavement design or construction supervision of widening	Projects
	to 2 lanes or 2 lane new alignment of length > 20 kms.	
<b>B5</b>	Experience in sub-soil investigation (sampling, testing, analysis) &	Projects
	quality control for road & bridge projects.	
<b>B6</b>	Experience as Independent Engineer for BOT Projects	Projects
KP-3	Bridge Engineer/Structural Engineer	
A	Academic Qualification	
	Degree in Civil Engg.	
	Masters degree in Structural/Bridge Engineering	
B.	Profession Related Experience	
<b>B</b> 1	No. of years of Professional Experience in Highway & Bridge	Years
	Engineering	
B2	Experience in design of major bridges	Projects
В3	Experience in design of minor bridges	Projects
B4	Experience in construction supervision of bridges with individual span	Projects

	length >40m	
B5	Experience in construction supervision of bridges with individual span length <40m	Projects
<b>B6</b>	Experience in Proof Checking for major bridges	Projects
<b>B</b> 7	Experience in Proof checking for minor bridges	Projects
B8	Experience as Independent Engineer for BOT Projects/PPP	Projects
KP-4	Sr. Traffic Engineer	
A	Academic Qualification	
	Degree in Civil Engineering	
	Masters degree in other Civil Engg. Disciplines	
	Masters degree in Traffic & Transportation Engg.	
B.	Profession Related Experience	
<b>B</b> 1	No. of years of Professional Experience in Highway/Traffic & Transportation Engineering.	Years
B2	Experience in similar capacity in Traffic Engineering/Traffic Studies for projects of widening to 2/4 lane/expressway or a 2/4 lane new alignment of length > 20 kms.	Projects
В3	Experience in carrying out traffic & transportation planning studies such as economic studies, cost benefit analysis, road users cost studies, economic feasibility studies etc.	Projects
B4	Any other study on Traffic & Transportation Engineering not cover above (pl. elaborate).	Projects
KP-5	Senior Survey Engineer	
KP-5 A	Academic Qualifications	
	Academic Qualifications  Degree in Civil Engineering	
	Academic Qualifications	
	Academic Qualifications  Degree in Civil Engineering  Masters degree in Civil Engg./Advanced Surveying  Profession Related Experience	
A	Academic Qualifications  Degree in Civil Engineering  Masters degree in Civil Engg./Advanced Surveying	Years
A B	Academic Qualifications  Degree in Civil Engineering  Masters degree in Civil Engg./Advanced Surveying  Profession Related Experience  No. of years of Professional Experience in Highway Engineering  Experience of conducting survey for road projects for widening to 4-lane/expressways or a 4- lane new alignment of length > 20 kms. Or	Years Projects
B B1 B2 B3	Academic Qualifications  Degree in Civil Engineering  Masters degree in Civil Engg./Advanced Surveying  Profession Related Experience  No. of years of Professional Experience in Highway Engineering  Experience of conducting survey for road projects for widening to 4- lane/expressways or a 4- lane new alignment of length > 20 kms. Or bridge projects with individual span > 40 m  Experience of conducting survey for road projects for 2 lane widening or a new alignment of length > 20 kms. Or minor bridge projects	
B B1 B2	Academic Qualifications  Degree in Civil Engineering  Masters degree in Civil Engg./Advanced Surveying  Profession Related Experience  No. of years of Professional Experience in Highway Engineering  Experience of conducting survey for road projects for widening to 4-lane/expressways or a 4- lane new alignment of length > 20 kms. Or bridge projects with individual span > 40 m  Experience of conducting survey for road projects for 2 lane widening or a new alignment of length > 20 kms. Or minor bridge projects  Environmental-cum-Resettlement Specialist	Projects
B B1 B2 B3	Academic Qualifications  Degree in Civil Engineering  Masters degree in Civil Engg./Advanced Surveying  Profession Related Experience  No. of years of Professional Experience in Highway Engineering  Experience of conducting survey for road projects for widening to 4- lane/expressways or a 4- lane new alignment of length > 20 kms. Or bridge projects with individual span > 40 m  Experience of conducting survey for road projects for 2 lane widening or a new alignment of length > 20 kms. Or minor bridge projects  Environmental-cum-Resettlement Specialist  Academic Qualification	Projects
B B1 B2 B3	Academic Qualifications  Degree in Civil Engineering  Masters degree in Civil Engg./Advanced Surveying  Profession Related Experience  No. of years of Professional Experience in Highway Engineering  Experience of conducting survey for road projects for widening to 4- lane/expressways or a 4- lane new alignment of length > 20 kms. Or bridge projects with individual span > 40 m  Experience of conducting survey for road projects for 2 lane widening or a new alignment of length > 20 kms. Or minor bridge projects  Environmental-cum-Resettlement Specialist  Academic Qualification  Post Graduation in Social Sciences/related Sciences	Projects
B B1 B2 B3	Academic Qualifications  Degree in Civil Engineering  Masters degree in Civil Engg./Advanced Surveying  Profession Related Experience  No. of years of Professional Experience in Highway Engineering  Experience of conducting survey for road projects for widening to 4- lane/expressways or a 4- lane new alignment of length > 20 kms. Or bridge projects with individual span > 40 m  Experience of conducting survey for road projects for 2 lane widening or a new alignment of length > 20 kms. Or minor bridge projects  Environmental-cum-Resettlement Specialist  Academic Qualification  Post Graduation in Social Sciences/related Sciences  Degree in Civil/Environmental Engg.	Projects
B B1 B2 B3	Academic Qualifications  Degree in Civil Engineering  Masters degree in Civil Engg./Advanced Surveying  Profession Related Experience  No. of years of Professional Experience in Highway Engineering  Experience of conducting survey for road projects for widening to 4- lane/expressways or a 4- lane new alignment of length > 20 kms. Or bridge projects with individual span > 40 m  Experience of conducting survey for road projects for 2 lane widening or a new alignment of length > 20 kms. Or minor bridge projects  Environmental-cum-Resettlement Specialist  Academic Qualification  Post Graduation in Social Sciences/related Sciences  Degree in Civil/Environmental Engg.  Masters degree in Environmental Engg.	Projects
B B1 B2 B3	Academic Qualifications  Degree in Civil Engineering  Masters degree in Civil Engg./Advanced Surveying  Profession Related Experience  No. of years of Professional Experience in Highway Engineering  Experience of conducting survey for road projects for widening to 4- lane/expressways or a 4- lane new alignment of length > 20 kms. Or bridge projects with individual span > 40 m  Experience of conducting survey for road projects for 2 lane widening or a new alignment of length > 20 kms. Or minor bridge projects  Environmental-cum-Resettlement Specialist  Academic Qualification  Post Graduation in Social Sciences/related Sciences  Degree in Civil/Environmental Engg.  Masters degree in Environmental Engg.  Profession Related Experience	Projects
B B1 B2 B3 KP-6 A	Academic Qualifications  Degree in Civil Engineering  Masters degree in Civil Engg./Advanced Surveying  Profession Related Experience  No. of years of Professional Experience in Highway Engineering  Experience of conducting survey for road projects for widening to 4- lane/expressways or a 4- lane new alignment of length > 20 kms. Or bridge projects with individual span > 40 m  Experience of conducting survey for road projects for 2 lane widening or a new alignment of length > 20 kms. Or minor bridge projects  Environmental-cum-Resettlement Specialist  Academic Qualification  Post Graduation in Social Sciences/related Sciences  Degree in Civil/Environmental Engg.  Masters degree in Environmental Engg.	Projects
B B1 B2 B3 KP-6 A	Degree in Civil Engineering Masters degree in Civil Engg./Advanced Surveying  Profession Related Experience No. of years of Professional Experience in Highway Engineering Experience of conducting survey for road projects for widening to 4- lane/expressways or a 4- lane new alignment of length > 20 kms. Or bridge projects with individual span > 40 m  Experience of conducting survey for road projects for 2 lane widening or a new alignment of length > 20 kms. Or minor bridge projects  Environmental-cum-Resettlement Specialist  Academic Qualification  Post Graduation in Social Sciences/related Sciences  Degree in Civil/Environmental Engg.  Masters degree in Environmental Engg.  Profession Related Experience  No. of years of Professional Experience in Environmental appraisal of Civil Engg. Projects	Projects Projects Years
B B1 B2 B3 KP-6 A	Academic Qualifications  Degree in Civil Engineering  Masters degree in Civil Engg./Advanced Surveying  Profession Related Experience  No. of years of Professional Experience in Highway Engineering  Experience of conducting survey for road projects for widening to 4- lane/expressways or a 4- lane new alignment of length > 20 kms. Or bridge projects with individual span > 40 m  Experience of conducting survey for road projects for 2 lane widening or a new alignment of length > 20 kms. Or minor bridge projects  Environmental-cum-Resettlement Specialist  Academic Qualification  Post Graduation in Social Sciences/related Sciences  Degree in Civil/Environmental Engg.  Masters degree in Environmental Engg.  Profession Related Experience  No. of years of Professional Experience in Environmental appraisal of	Projects Projects

<b>KP-7</b>	Foundation Engineer/Geo-technical Engineer	
A	Academic Qualification	
	Degree in Civil Engg.	
	Masters degree in Foundation/Soil Engineering/Geo-technical	
	Engineering	
B.	Profession Related Experience	
<b>B1</b>	No. of years of Professional Experience in Highway Engineering	Years
<b>B2</b>	Experience in geo-technical investigation of high embankments/design of deep foundation for major bridges	Projects
В3	Experience in geo-technical survey/sub-soil investigation (sampling, field testing, lab testing etc.) for deep foundation for any Civil Engg. Projects.	Projects
B4	Experience in construction/construction supervision of deep foundation for major bridges	Projects
B5	Experience in construction/construction supervision of foundations for bridges with innovative design.	Projects
KP-8	Transport Planner	
A	Academic Qualification	
	Post Graduation in Operation Research/Transportation/Management without specialization in Transport Planning/Transport Economics	
	Degree in Civil Engg/Architecture	
	Masters degree in Traffic/Transportation Engg. Or Master in Transport	
	Planning or Degree in Civil Engg. With PG in Traffic & Transport	
	Planning/Transport Economics, Post Graduation in Operation	
	Research/Transportation/Management with specialization in Transport	
	Planning/Transport Economics.	
В	Profession Related experience	
B1	No. of years of professional related experience in Transport	Years
	Engineering/Planning	
B2	Comprehensive Traffic & Transportation Studies & Transport/Highway Planning including Route Location & Evaluation of various alternatives in Metropolitan/Urban areas, Multi-Model Transport Planning Studies/Corridor Analysis & Rout4 Selection Impact Analysis Study/Parking Analysis & Policy Formation Study etc.	Projects
В3	Any other Study on Traffic & Transportation Engineering & Highways Planning/Engineering (Pl. elaborate)	Projects
KP-9	CAD Specialist	
A	Academic Qualification	
	Any relevant qualification in Science	
	Degree in Civil Engineering	
	MCA/Degree in Civil Engg. With post graduation in Computer Aided	
	Design/Degree in Computer Engg.	
	Masters in Computer Engg	
В	Profession related experience	
B1	No. of years of Professional Experience in Engineering	Years
B2	Experience in Highway/Transport related software development, its	Projects
	design & drafting.	

B3	Experience in Highway projects (2/4 lane) of length more than 20 kms	Projects
20	or bridge projects having individual span length > 25m	
KP- 10	Geologist	
A	Academic Qualifications	
А	Degree in Geology	
	Masters degree in Geology	
В	Profession Related Experience	
B1	No. of years of Professional Experience as a Geologist in any Civil	Years
Di	Engg. Projects.	1 cars
B2	Experience in Geological mapping of sub surface for any Civil	Projects
DZ	Engineering project	110jects
B3	Experience in other geological work (Pl. furnish details)	Projects
KP-	Contract Manager	110,000
11	Contract Manager	
A	Academic Qualifications	
	Degree in Civil Engineering	
	Degree in Civil Engg. With Diploma in Management (Finance)	
	Masters degree. in Civil Engg. Or Construction Management Or Degree	
	in Civil Engg. With MBA	
В	Profession related Experience	
B1	No. of years of Professional Experience in Highway Engineering	Years
B2	Experience of contract management of road projects for widening to 4-	Projects
	lane/expressways or a 4- lane new alignment of length > 20 kms. Or	
	bridge projects with individual span > 40 m	
В3	Experience in contract management of road projects for widening to 2	Projects
	lane or a 2 lane new alignment of length > 20 kms. / minor bridge works	
KP-	Bridge rehabilitation Specialist	
12		
A	Academic Qualifications	
	Degree in Civil Engineering	
	Masters degree in Bridge Engineering/Structural Engineering	
В	Profession related Experience	
<b>B</b> 1	No. of years of Professional Experience in Bridge Engineering	Years
<b>B2</b>	Experience in inspection, preparation of plan for rehabilitation of	Projects
	prestressted bridges/composite bridges/RCC bridges.	
<b>B3</b>	Experience in construction/construction supervision of	Projects
	rehabilitation/strengthening work of prestressed bridges/composite	
TZD	bridges/RCC bridges.	
KP-	Material Engineer / Quality Control Engineer	
13	A 1 ' O 1'0' ('	
A	Academic Qualification	
	Degree in Civil Engg.  Masters degree in Sail machanica/Coa tachnical Engineering	
D	Masters degree in Soil mechanics/Geo-technical Engineering	
B	Profession Related Experience	N/
B1	No. of years of Professional Experience in Highway Engineering.	Years
<b>B2</b>	Experience in material testing/ quality control of road projects for	Projects
	widening to 4 lane/expressways or a 4 lane new alignment of length > 20	

	kms or bridge projects with individual span > 40m	
В3	Experience in material testing/ quality control of road projects for	Projects
	widening to 2 lane or new 2 lane alignment of length > 20 kms or minor	
	bridge projects.	
<b>B4</b>	Experience in sub-soil investigation (sampling, testing, analysis) &	Projects
	quality control for road & bridge projects.	
5	FIELD / LABORATORY EQUIPMENT (Please state availability of	
	the equipment mentioned below).	
(a)	In-house Computer Hardware/Software facility (applicable for all	
	categories.	
	i) Having at least one Pentium and printer/plotter facility	
	ii) CAD/ Mx, INROADS, STAAD III or equivalent software for	
	Highways & Bridge Designs (mention name & application of the	
	software available with the firm).	
(b)	Survey Equipments (applicable for all categories)	
	i) Total Station or Distomat, Theodilite and Auto Level	
	ii) Plain Table Assembly	
	iii) Other Survey Equipments	
(c)	Soil/Material Testing Equipments : (applicable for categories, I, II,	
	IV, VI,VII)	
	Expertise/facilities/infrastructure for carrying out:	
	(i) Auger/shell/percussion/wash/rotary boring	
	(ii) Drilling through rocks for a depth upto 3 meters for establishing the	
	continuity of rock strata	
	(iii) Field/Lab. C.B.R. Test assembly	
	(iv) Static cone penetration, dynamic cone penetration	
	<ul><li>(v) Vane shear test, standard penetration test</li><li>(vi) Classification test and density test of soil sample</li></ul>	
	(vii) Triaxial (UU, CU) test, box shear test	
	(viii) Consolidation test	
	(ix) Standard and modified proctor test as per IS: 2720	
	(x) Permeability Test	
	(xi) Geo-textile testing facilities	
(d)	Additional facilities required for category –III	
(u)	(i) Core cutter	
	(ii) Rebound hammer	
	(iii) Ultrasonic pulse velocity measurement device	
	(iv) Corrosion meter	
	(v) Cover meter	
(e)	Additional facilities required for category-IV	
	(i) Electrical resistivity method and seismic method for bridge	
	foundation resting on rock	
	(ii) Visual identification of rock course fore texture, structural	
	composition, colour and grain size, specific gravity, porosity, moisture	
	contest and consolidation test for cohesive soil.	
	(iii) Drilling through rock to take out rock core of sufficient length for	
	testing.	
	(iv) In-site tests on rocks as per IS 7292, IS 7317, IS 7746	

<b>(f)</b>	Additional facilities required for category-V	
	(i) Automatic traffic count & classifiers (ATCC)	
	(ii) Bridge weigh in Motion (WIM)	
	(iii) Road Information System(RIS), Geographical Information	
	System(GIS) software.	
	(iv) Intelligent Transport System (ITS) equipment	
(g)	Additional facilities required for category-VI	
	(i) Benkelman beam	
	(ii) Rough meter or any other suitable equipment	
(h)	Additional facilities required for category-VII	
	(i) Benkelman beam	
	(ii) Rough meter or any other suitable equipment	

#### ANNEXURE-II BIODATA FORMAT TO BE SUBMITTED WITH PROPOSAL

Photograph

1.	Proposed	position	:
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- 2. Name:
- 3. Contact address with Tel. No. & e-mail ID:
- 4. Date of birth:
- 5. Nationality:
- 6. Educational qualification:
- 7. Other training:
- 8. Language & degree or proficiency
- 9. Membership of professional societies:
- 10. Countries of work experience
- 11. Name of the firm where working

#### (indicate whether full time/ part time employee or retainer)

- 12. Years with the firm:
- 13. Employment record: from to

Name of the employer:

Position held:

Description of duties:

- Overall Professional Experience in Highway /Traffic & Transportation/ Bridge Engineering or in related field.:
- 15. Related Work Experience (in years):

16. Details of the Related Work Experience (During last 5 years only)

Item	Sr.	Brief	Name	Cost of	Period	of	Description
	No	Descripti	of	Consultancy	completion		of the
		on of the	the	Work (Rs.	1		actual
		Project/	Client	in lakhs	Date	Date of	services
		Study			of	completion	provided
					Start	1	by the
							key person
I PROJECTS/	1						
STUDIES	2						
COMPLETED	-						
II	1						
PROJECTS/	2						
STUDIES IN							
HAND							

NOTE: The CVs must be signed by key personnel and counter-signed by authorised representative in ink on each and every page and should not be older than three months from the date of submission of application. Photograph of the key personnel shall be affixed on their respective CV. The contact address with telephone & mobile number, e-

mail ID of the key personnel must be furnished. Unsigned CVs or CVs with incomplete information shall not be evaluated.

#### **ANNEXURE-III**

# RELEVANT SERVICES CARRIED OUT BY THE FIRM\*\* WHICH ILLUSTRATES THEIR BEST QUALIFICATIONS DURING LAST 5 YEARS

Project Name  Project location within country  Name and address of client:		Country		
		Professional staff provided: (a) No. of staff		
		(b) No. of man-months		
Start date (month/year)	Completion date (month/year)	Approx. value of CONSULTANCY services:(in Rs lakhs)		
Whether project firms.	was done alone or as	a JV or in association with other firm/		
Name of Lead pa JV/association:	rtner in case of	No. of man-months of professional staff provided by associated firm (s)		
Name of Senior s	staff involved and fund	ctions performed :		
(Functions perfo	ormed by the associat	ed firm (s) to be given separately)		
<b>Narrative Descrip</b>	otion of Project:			
<b>Detail description</b>	n of Actual Services P	Provided by the firm under different		
categories:				
(Please select fro	wa tha fallawina)			

#### (i) For category I

#### Feasibility Study

- · Road/Bridge Inventory
- Surveys: Traffic Surveys, road condition surveys, topographic surveys, soil surveys, hydrological surveys etc.
- · Pavement Evaluation
- Condition assessment of existing bridges
- · Preliminary Design Road
- Preliminary Design of Bridges & Bridge components ('x' no. of major/minor bridges)
- · Rough Cost Estimate
- · Economic Evaluation
- Feasibility Report
- · Add any other relevant item, if any

### **Project Preparation**

- · Ground Surveys & Investigation
- Material Surveys
- Geo-tech Investigation for Bridges & High Embankments
- Environmental Analysis, Impact assessment formulates policies, mitigation measure, R & R.
- Preparation of Designs for Roads (pavement/geometric design)
- Preparation of Designs for Bridges for ( old & new, 'x' no. of Major/Minor Bridges) and bridge components.
- Final Project Report & Final Drawings
- Tender Documents(inclusive of those on PPP basis): Pre-qualification documents & Tender Evaluation Add any other relevant item, if any

### (ii) For category II

### Feasibility study:

- Bridge Inventory
- Surveys: Traffic survey, topographic survey, soil survey, hydrological survey etc.
- Condition assessment of existing bridges, flyover and grade separator
- Preliminary design of bridges, flyovers and grade separators.
- Preparation of rough cost estimate
- Economic evaluation
- Feasibility report.

Add any other relevant item, if any

#### **Project preparation:**

- Material survey
- Environmental impact studies
- Geo-technical investigation for bridge and high embankment
- Detailed structural design of bridges (old and new)
- Preparation of project report and drawing
- Preparation of tender documents(inclusive of those on PPP basis), construction specification etc.
   Add any other relevant item, if any
- <u>Design review / proof checking of bridges</u>

### (iii) For category III

#### Feasibility study:

- Condition survey and assessment of rehabilitation/repair required for existing bridges and bridge components through detailed inspection, investigation and testing.
- Formation of preliminary rehabilitation plan
- Preparation of rough cost estimate
- Economic evaluation
- Feasibility report.

Add any other relevant item, if any

#### Project preparation:

- Preparation of project and drawing for rehabilitation of bridges
- Preparation of tender document, specification and quality assurance plan and maintenance manual
- Load testing
- Instrumentation

Add any other relevant item, if any

**Note :-** Consultants entrusted with the job of repair and rehabilitation of bridges will also be responsible for supervision of the work of repair and rehabilitation and he will also suggest a suitable team of experts for the purpose.

#### (iv) For category IV

- Ground Surveys & Investigation
- · Material Surveys
- Geo-tech Investigation for Bridges
- Geo-tech investigation for high embankments
- Preparation of designs for road pavement
- Preliminary investigation for bridge foundations resting on rock using geophysical methods
- Investigations for bridge foundations resting on rock by drilling through rocks
   Add any other relevant item, if any

#### (v) For category V

#### **Project Preparation**

- Traffic Survey, Analysis and Projection.
- · Various methods employed for traffic survey.
- Condition survey.
- Use of ATCC/WIM.

#### Add any other relevant item, if any

## (vi) For category VI Project Preparation

- Ground Surveys & Investigation
- · Material Surveys
- Geo-tech Investigation for Bridges & High

#### Embankments

- · Environmental Analysis, Impact assessment formulates
- policies, mitigation measure, R & R
- Preparation of Designs for Roads (pavement/geometric design)
- · Final Project Report & Final Drawings
- Tender Documents(inclusive of those on PPP basis): Pre-qualification documents & Tender Evaluation

Add any other relevant item, if any

## Construction Supervision

- Design review
- Contract Management
- Quality Control

Add any other relevant item, if any

## (vii) For category VII Project Preparation

- Ground Surveys & Investigation
- · Material Surveys
- Geo-tech Investigation for Bridges & High

#### **Embankments**

- Environmental Analysis, Impact assessment formulates policies, mitigation measure, R & R
- Preparation of Designs for Bridges for ( old & new, 'x'
- no. of Major/Minor Bridges) and bridge components.
- · Final Project Report & Final Drawings
- Tender Documents(inclusive of those on PPP basis): Pre-qualification documents & Tender Evaluation

#### Add any other relevant item, if any

#### **Construction Supervision**

- Design review
- Contract Management
- Quality Control

Add any other relevant item, if any

<sup>\*\*</sup> For each project done by the firm, separate sheet of Annexure – III shall be filled up and accompanied by documentary proof from client.

#### Annexure - IV

## DETAILED INFORMATION IN RESPECT OF TECHNICAL PERSONNEL AVAILABLE WITH THE FIRM

Sl.No.	Name	Academic Qualification Degree(Civil) / Masters*	Year of passing	No of years of experience in the field of Highway/Bridge	Signature of respective technical personnel
				Engineering	

Signature of the Authorised signatory of the firm

• In case of Masters, please mention the discipline like Masters (Structure), Masters (Traffic & Transport) etc.

#### Summary of Financial Performance

(A)

Year	Annual Turnover in Indian Rupees or equivalent to Indian	Revenue from Consultancy Assignments(in Rs.	% share of Revenue from Consultancy Assignments
1	Rupees (In Rs. Lakhs)	Lakhs)	4
1	2	3	4
<del>2014-15</del>			
2015-16			
2016-17			
Average annual turnover of the last 3 years			

Note:-Figures given in column (2) & (3) above must match with those given in the Audited Accounts.

(B)

Financial Information in	For year 2014-15	For year 2015-16	For year 2016-17
Rupees Equivalent			
1	2	3	4
1 Total Assets			
2 Current Assets			
3 Total Liabilities			
4. Current Liabilities			
5. Profit before Tax			
6. Profit after Tax			

#### OTHER EVALUATION INFORMATION

- i) Registration/Licence: The Consultant/Consulting Firm must have registration with service tax or/and sales tax from the appropriate authorities, whichever applicable (Photocopies of registration certificates to be submitted.)
- ii) The consultant should not have abandoned any work of Government of India/Other stateGovernment Departments during the last 5 years.
- iii) Information regarding litigation, expulsions and blacklisting, if any, should be submitted with details.