

UTTARAKHAND PUBLIC WORKS DEPARTMENT



APPLICATION PROFORMA

**EMPANELMENT OF CONSULTANCY SERVICES
FOR
PREPARATION OF DETAILED PROJECT REPORTS
FOR BRIDGES
B1/B2**

**Engineer in Chief
P.W.D. Uttarakhand
Lok Nirman Bhawan, Yamuna Colony, Dehradun -248001
e-mail- eicpwduk@nic.in telephone-01352531154**

INDEX

Sections	Section name	Pages
I	GENERAL INSTRUCTIONS	1
II	INSTRUCTIONS TO APPLICANTS	2-5
III	ENCLOSURES	6-16

Cher

**PUBLIC WORKS DEPARTMENT,
UTTARAKHAND, INDIA**
APPLICATION FOR EMPANELMENT OF CONSULTANTS FOR BRIDGES (B1/B2)
GENERAL INSTRUCTIONS

PWD Uttarakhand invites applications from interested consultants for empanelment under the categories mentioned below.

S.No.	Categories	Description
1	CATEGORY-B (I)	Feasibility study and Detailed project preparation for all types of bridges/grade separators including approaches but excluding bridges with innovative design such as cable stayed, suspension bridge, etc.
2	CATEGORY-B (II)	Feasibility study and detailed project preparation for all types of bridges/grade separators including approaches & Bridges with innovative design such as cable stayed suspension bridge, extra dosed etc.

2. Consulting firms interested in empanelment can download the application form from www.pwd.uk.gov.in or can collect the application form from EIC PWD Office, Lok Nirman Bhawan Yamuna Colony, Dehradun.

3. The consultants who are already empanelled by the department before August 2018 are also required to apply for empanelment as per this format within two months i.e. 31st October 2018.

4. The applicants should submit the empanelment request in the prescribed format along with all the enclosures with requisite information to:-

**Chief Engineer (HQ),
PWD Dehradun, Uttarakhand
email- cehq.pwduk@gov.in**



INSTRUCTIONS TO APPLICANTS

1. The empanelment will be valid for a period of two years, subject to satisfactory and professional performance of the consultant and the year will be reckoned from 1st July to 30th June.
2. Empanelment of experienced and competent consultants shall be considered for Feasibility study and Detailed Project Preparation for B-(I) & B-(II) for types of projects.

3. Technical expertise and experience desired from the consultants are as under.

3.1 Category B-(I)

Consultants should have necessary expertise and experience in carrying out feasibility studies, detailed project preparation & design of all types of bridge projects/grade separators, experience in conceptualizing schemes and in traffic and transportation studies. In addition the consultant is expected to possess necessary experience in Geotechnical studies.

3.2 Category B-(II)

Consultants should have necessary expertise and experience in carrying out feasibility studies, detailed project preparation & design of bridges with innovative design such as cable stayed, suspension bridge etc/grade separators, experience in conceptualizing schemes and in traffic and transportation studies. In addition the consultant is expected to possess necessary experience in Geotechnical studies.

4. Eligibility Requirement

4.1 Category B-(I)

The Consultant should have done at least one work of bridges with overall length greater than 60m with at least one span length greater than 40m in **each of** (i) Feasibility Study (FS) and (ii) preparation of DPR, in last seven years.

Note: Feasibility Study/Preparation of DPR of bridges as part of Road Projects will also be considered for evaluation.

1. The consultant should have average annual turnover over above Indian Rs. **15 lakh** in the last three financial years (for currencies other than Indian Rupees, the applicable conversion rate of Reserve Bank of India on the last date of application document submission shall apply).
2. Minimum No. of full time technical personnel who are in the payroll of the firm for at least one year as on the date of submission of application with following qualifications and experience
 - (i) Post graduate in Structural Engineering with at least 10 years of experience or Graduate in Civil Engineering with at least 20 years' experience- 1 person
 - (ii) Graduate with at least 5 years of experience- 1 person.

4.2 Category B-(II)

1. The Consultant should have done at least one work of bridges of innovative design such as cable stayed, suspension bridge etc, with overall length equal to or greater than 90 m with at least one span length equal to or greater than 90m in each of (i) Feasibility Study (FS) and (ii) preparation of DPR, in last seven years.

Note: Feasibility Study/Preparation of DPR of bridges as part of Road Projects will also be considered for evaluation.



2. The consultant should have average annual turnover over above Indian Rs. 25 lakhs in the last three financial years (for currencies other than Indian Rupees, the applicable conversion rate of Reserve Bank of India on the last date of application document submission shall apply).
3. Minimum No. of full time technical personnel who are in the payroll of the firm for at least one year as on the date of submission of application with following qualifications and experience
 - (i) Post graduate in Structural Engineering with at least 15 years of experience or Graduate in Civil Engineering with at least 25 year experience- 1 person
 - (ii) Graduate with at least 15 years of experience- 1 person.

Note: Applicable for all above categories: -

1. The applicant shall furnish contact particulars of the relevant Officers of the clients for which the above works have been executed, to enable PWD Uttarakhand to verify the claim of the applicant. **The applicant should also furnish Successful completion certificate mentioning start and end date of the work duly signed by the client organization's project in-charge / any equivalent officer / the authorized signatory, otherwise the project claimed to be executed by the applicant will not be considered for evaluation.** 90% completion of the work will be considered as substantial completion subject to submission of certificate/document from client mentioning the present status of the work.
2. Documentary proof in the form of a Certificate from the statutory auditor/charted accountant of the applicant's company duly signed and stamped by the statutory auditor/charted accountant needs to be submitted as proof for annual turnover. Base year for determination of escalation shall be last financial year(FY 3)and the following enhancement/escalation factor will be used as under.

Financial Year(last 3 years)	Enhancement /Escalation Factor
FY 3	1.00
FY 2	1.05
FY 1	1.10

Note:- The applicant should indicate annual turnover without accounting for the above factors.

3. The Eligibility Requirement, mentioned above is for the purpose of initial screening of the applications only.

5. The applications will be evaluated on the basis of the following broad criteria

S.No	Item	Max. Marks		
		Cat. B-(I)	Cat. B-(II)	Minimum marks for qualifying
1	Structure and organization of the Firm	100	100	50%
2	Financial status	150	150	50%
3	Firm's relevant experience	450	450	50% Annexure III
4	Qualification and Experience of Technical Personnel.	200	200	50% Annexure II
5	Essential Field / laboratory Equipment	100	100	50% Appendix A
	Total	1000	1000	500
In addition to this, the firms should also score minimum 50% marks in each of the above mentioned items, otherwise the firm shall not be considered for empanelment.				

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. Experience certificate issued by State/Central government agencies only be considered for evaluation.

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 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 CVs. 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. A retainer will get only 60 % credit of that of a full time expert. A technical person associated with more than four firms shall not be treated as retainer and his CV will not be considered for evaluation.

8. List of essential field/Laboratory equipment required for B-(I)& B-(II) categories is available in Appendix-A. Consultant should submit undertaking at Annexure-VI that "all necessary field/laboratory equipments are available with the firm/the equipments will be made available as per requirement for the project".

9. It is suggested that the firm should fill up Annexure -I, vis-à-vis the supporting details vide Annexure II, III, IV, V&VI and any other information with due care so as to avoid any ambiguity.

10. In case spaces available in the Annexure- I, II, III, IV, V&VI 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.

11. The applications not complying with the above mentioned stipulations and found to be deficient in any respect shall be summarily rejected.

12. Consulting firms should note that only authenticated information should be provided in the prescribed format. Information provided by the consulting firms would 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. Firms submitting false/incorrect information or suppressing the information shall be debarred from empanelment for two years and shall not be eligible to participate in bidding in any project of PWD Uttarakhand.

13. All the applications should be submitted **ONLY in HARD BOUND** (Hard bound implies such binding between two covers through stitching or otherwise whereby it may not be possible to replace any paper without disturbing the document) form with all pages sequentially numbered either at the top or at the bottom right hand corner of each page e.g. by writing page 1 of 10 on page 1, if total pages are 10. All pages of the application document shall be initialed by authorized signatory of the applicant. It should also have an index giving page wise information of above documents and strictly in sequence given in the format at Annexure I. **Incomplete application or those received without hard bound will summarily be rejected.** Intending consultants, should submit their application for empanelment to the HOD/Chief Engineer (HQ), PWD Uttarakhand, Yamuna Colony, Dehradun.

14. The Department reserves the right to reject any or all applications without assigning any reason. After evaluation, a panel of consultants under the categories mentioned above will be formed depending on the capacity and experience of the consultants and the same will be communicated to all



Chief Engineers of State PWD/Other Associated Departments dealing with State Roads & Bridges and other Centrally sponsored schemes to draw upon, as and when necessary, for purpose of obtaining offers for particular projects.

15. Notwithstanding the formation of these panels, the Department may go in for separate empanelment for specific assignments, if it so decides.

16. The applicant shall not be considered for empanelment if the applicant is debarred /blacklisted at the time of submission of the application in the Department. The applicant shall submit litigation history/undertaking on non-judicial stamp paper duly notarized to the effect that the applicant has not been debarred or blacklisted by NHAI/PWD Uttarakhand or any other government agency at Annexure -V.

17. If the applicant after empanelment changes its name, they may seek for incorporation of the change of name in the empanelled list with full documentary proof.

18. Empanelled list will be valid for two years from the date of empanelment of the consultant.

19. Empanelled consultant may apply for up-gradation on gaining experience as per the application document, for which Uttarakhand PWD may call 'application for up-gradation of empanelment', once in a year(June).

Appendix-A

	LIST OF ESSENTIAL FIELD/LABORATORY EQUIPMENT REQUIRED
(a)	In-house Computer Software facility (applicable for all categories).
	Category B-(I): STAAD Pro, SAP, MIDAS, RM or equivalent software for Bridge Designs
	Category B-(II): STAAD Pro, SAP, MIDAS, RM or equivalent software for Bridge Designs
(b)	Survey Equipments
	i) Total Station or Auto Level
	ii)GPS (accurate to within 10 cm)
	iii) Other Survey Equipments
(c)	Soil/Material Testing Equipment
	Expertise/facilities/infrastructure for carrying out :
	(i) Auger/shell/percussion/wash/rotary boring
	(ii) Drilling through rocks for a depth up to 3 meters for establishing the continuity of rock strata
	(iii) Field/Lab. C.B.R. Test assembly
	(iv) Static cone penetration, dynamic cone penetration
	(v) Vane shear test, standard penetration test
	(vi) Classification test and density test of soil sample
	(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
	(xii) Any other equipment required for tunnel

Enclosures: Annexure I, II, III, IV,V&VI.



Annexure I

APPLICATION PROFORMA FOR EMPANELMENT OF CONSULTANTS

General Information		Ref. page No. of documentary proof in the application
(i)	Name and address of the consultant/consulting firm	
(ii)	Whether Pvt. Ltd. Company/Public Co./Others	
(iii)	Name of the authorized contact person /representative duly certified by the head of the consulting firm. (applicant should submit certificate from head of the consulting firm as proof)	
(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 for domestic funded projects.	
1	STRUCTURE & ORGANISATION OF FIRM	
	Date, month and year of incorporation of Firm	
A	Standing of the firm (As on the date of submission of application)	____ Years
	NOTE: (i) (The consultant shall submit, a copy of original document defining constitution or legal status, place of registration, principal place of business and power of attorney. In case of a proprietary firm and partnership firm, the document related to registration of the firm with concerned government department shall be submitted. In case of a company, Memorandum of Association and Article of Association, Name of directors and shareholders shall also be furnished.) (ii) For Categories B-(I) & B-(II) firms which have been incorporated/registered within last 3 years shall not be considered.	
B	No. of full time technical personnel who are in the payroll of the firm for at least one year as on the date of submission of application with following qualifications and experience:	
	(i) Masters degree (structure) with minimum 10 years of experience	____ Persons
	(ii) Masters degree (Traffic & Transportation) with minimum 10 years of experience	____ Persons
	(iii) Masters degree (Geotechnical Engineering/Geology) with minimum 10 years of experience	____ Persons
	(iv) Masters degree in any engineering discipline with minimum 10 years of experience	____ Persons
	(v) Masters degree in any engineering discipline with minimum 5 years of experience	____ Persons
	(vi) Degree(Civil) with minimum 20 years of experience	____ Persons
	(vii) Degree(Civil) with minimum 15 years of experience	____ Persons
	(viii) Degree(Civil) with minimum 10 years of experience	____ Persons
	(ix) Degree (Civil) with minimum 5 years of experience	____ Persons
	(x) Diploma in Civil Engineering with minimum 8 years experience	____ Persons

Chauhan

	NOTE: The detailed information regarding technical personnel mentioned above may be furnished as per Annexure-IV.		
2	FINANCIAL STATUS:		
	Annual Turnover of last three years (Rs. in lakhs)		
	Financial Year 3(Rs. in lakhs)		
	Financial Year 2(Rs. In lakhs)		
	Financial Year 1(Rs. In lakhs)		
	Note : Enclose audited accounts for the last three years in support. The applicant should indicate annual turnover without accounting for enhancement/escalation factors.		
3	FIRM'S RELEVANT EXPERIENCE:		
	Note: Please mention number of projects completed by the firm in last 5 years 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. Note: The applicant shall furnish contact particulars of the relevant Officers of the clients for which the works have been executed, to enable Department to verify the claim of the applicant. The applicant should also furnish successful completion certificate mentioning start and end date of the work duly signed by the client organization's project in-charge / any equivalent officer / the authorized signatory, otherwise the project claimed to be executed by the applicant will not be considered for evaluation.		
Category-B-(I)			
	(i) Experience in feasibility study of		
	(a) bridges with overall length greater than 60m with at least one span length greater than 40m	__ Projects	
	(b) bridges with overall length greater than 60m with any span length (other than bridges mentioned under sub item (a) above).	__ Projects	
	(ii) Experience in preparation of DPR of		
	(a) bridges with overall length greater than 60m and with at least one span greater than 40m	__ Projects	
	(b) bridges with overall length greater than 150m with any span length (other than bridges mentioned under sub item (a) above).	__ Projects	
	(iii) Experience in Proof checking of		
	(a) bridges with overall length greater than 60m and with at least one span greater than 40m	__ Projects	
	(b) bridges with overall length greater than 150m with any span length (other than bridges mentioned under sub item (a) above).	__ Projects	
Category-B-(II)			
	(i) Experience in feasibility study of		
	(a) bridges of innovative design such as cable stayed, suspension bridge etc with overall length equal to or greater than 90m with at least one span length greater than 90m	__ Projects	
	(b) bridges of innovative design such as cable stayed, suspension bridge etc with overall length greater than 250 m with any span length (other than bridges mentioned under sub item (a) above).	__ Projects	
	(ii) Experience in preparation of DPR of		
	(a) bridges of innovative design such as cable stayed, suspension bridge etc with overall length equal to or greater than 90m with at least one span	__ Projects	

Ch

	length greater than 90 m		
	(b) bridges of innovative design such as cable stayed, suspension bridge etc with overall length greater than 250m with any span length (other than bridges mentioned under sub item (a) above.	__ Projects	
	(iii) Experience in Proof checking of		
	(a) bridges of innovative design such as cable stayed, suspension bridge etc with overall length greater than or equal to 90m with at least one span length greater than 90m	__ Projects	
	(b) bridges of innovative design such as cable stayed, suspension bridge etc with overall length greater than 250m with any span length (other than bridges mentioned under sub item (a) above.	__ Projects	
	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, rehabilitation of existing bridge 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.		
4	QUALIFICATIONS AND EXPERIENCE OF TECHNICAL PERSONNEL		
	Note: 1. Minimum academic qualification: (i) KP2, KP3, KP5, KP7 : Degree in Civil Engineering (ii) KP9: Degree in any field. 2. The CVs of technical personnel not fulfilling above criteria shall not be evaluated. 3. CV of alternate Key Personnel should not be submitted along with the proposal.		
4.1	List of technical personnel		
KP2	Pavement Specialist		
KP3	Bridge/Structural Engineer		
KP5	Sr. Survey Engineer		
KP7	Foundation Engineer/Geotechnical Engineer		
KP9	CAD Specialist		
4.2	Essential Technical Personnel required for various categories are as follows:		
	i. Category B-(I): KP3 – 2 Nos. & KP2, KP5, KP7, KP9 – One No. each.		
	ii. Category B-(II): KP3 – 3 Nos., & KP2, KP5, KP9 – One No. each. & KP7-2 Nos.		
4.3	Experience and qualifications required for Technical Personnel.		
KP-2	Pavement Specialist		
A	Academic Qualifications		
	Degree in Civil Engineering		
	Masters degree in Highway/Geo-technical/Foundation Engineering		
	Masters degree in other Civil Engineering Disciplines		
B	Profession Related Experience		
B1	No. of years of Professional Experience in Highway Engineering	__ Years	
B2	Experience in pavement design or construction supervision of widening to 4 or more lane/expressways or 4 or more lane new alignment of length. 20 Kms.	__ Projects	
B3	Experience in proof checking for widening to 4 or more lane/expressways or 4 or more lane new alignment of length. 20 Kms. As well as in widening to 2 lane or 2 lane new alignment of length > 20 kms.	__ Projects	
B4	Experience in pavement design or construction supervision of widening to	__ Projects	

Car

	2 lanes or 2 lane new alignment of length > 20 kms.		
B5	Experience in sub-soil investigation (sampling, testing, analysis) & quality control for road & bridge projects.	_ Projects	
B6	Experience as Independent Engineer/ Authority Engineer for BOT Projects	_ Projects	
KP-3	Bridge Engineer/Structural Engineer		
A	Academic Qualification		
	Degree in Civil Engineering		
	Masters degree in Structural/Bridge Engineering		
B.	Profession Related Experience		
B1	No. of years of Professional Experience in Highway & Bridge Engineering	__ Years	
B2	Experience in design of major bridges	_ Projects	
B3	Experience in design of minor bridges	_ Projects	
B4	Experience in construction supervision of bridges with individual span length > 25m	_ Projects	
B5	Experience in construction supervision of bridges with individual span length < 25m	_ Projects	
B6	Experience in Proof Checking for major bridges (≥ 60 m)	_ Projects	
B7	Experience in Proof checking for minor bridges (< 60 m)	_ Projects	
B8	Experience as Independent Engineer/ Authority Engineer for BOT Projects	_ Projects	
B9	Experience in Tunnel projects	_ Projects	
KP-5	Senior Survey Engineer		
A	Academic Qualifications		
	Degree in Civil Engineering		
	Masters degree in Civil Engg./Advanced Surveying		
B	Profession Related Experience		
B1	No. of years of Professional Experience in Highway Engineering	__ Years	
B2	Experience of conducting survey for road projects for widening to 4 or more lane/expressways or a 4 or more lane new alignment of length > 20 kms. Or major bridge (≥ 60 m) projects	_ Projects	
B3	Experience of conducting survey for road projects for 2 lane widening or a new alignment of length > 20 kms. Or minor bridge (< 60m) projects	_ Projects	
KP-7	Foundation Engineer/Geo-technical Engineer		
A	Academic Qualification .		
	Degree in Civil Engineering		
	Masters degree in Foundation/ Soil Engineering/ Geo-technical Engineering		
B.	Profession Related Experience		
B1	No. of years of Professional Experience in Highway Engineering.	__ Years	
B2	Experience in geo-technical investigation of high embankments/design of deep foundation for major bridges	_ Projects	
B3	Experience in geo-technical survey/sub-soil investigation (sampling, field	_ Projects	

	testing, lab testing etc.) for deep foundation for any Civil Engg. Projects.		
B4	Experience in geo-technical survey/sub-soil investigation (sampling, field testing, lab testing etc.) for shallow foundation for any Civil Engg. Projects	_Projects	
B5	Experience in construction/construction supervision of deep foundation for major bridges	_Projects	
B6	Experience in construction/construction supervision of foundations for bridges with innovative design.	_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.		
B	Profession related experience	_Years	
B1	No. of years of Professional Experience in Engineering	_Projects	
B2	Experience in Highway/Transport related software development, its design & drafting.	_Projects	
B3	Experience in Highway projects (2or more lane) of length more than 20 kms or bridge projects having individual span length > 25m	_Projects	

Qw

BIODATA FORMAT TO BE SUBMITTED WITH PROPOSAL

Affix recent
photograph

1. Proposed position :
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 :
14. Overall Professional Experience in Highway /Traffic & Transportation/ Bridge Engineering
or in related field(in years) :
15. Related Work Experience (in years) :
16. Details of the Related Work Experience

Item	Sl. No	Brief Description of the Project/ Study	Name of the Client	Cost of Consultancy Work (Rs. in lakhs)	Period of completion		Description of the actual services provided by the key person
					Date of Start	Date of completion	
Projects/ studies complete d	1 2 -						
Projects/ studies in hand	1 2 --						

NOTE: The CVs must be signed by key personnel and counter-signed by authorized 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.



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

Project Name		Country	Project location within country:
Date of Agreement:		Professional staff provided:	
Name and address of client:		(a) No. of staff (b) No. of man-months	
Start date (month/year)	Completion date (month/year)	Approx. value of consultancy services:(cost as per Agreement in INR(Lakhs))[In case of foreign currency, conversion factor as on date of Agreement with proof shall be submitted]	
Whether project was done alone or as a JV or in association with other firm/ firms:			
No. of man-months of professional staff provided by associated firm (s)			
Name of Senior staff involved and functions performed : (Functions performed by the associated firm (s) to be given separately)			
Narrative Description of Project:			
Total length of the Project Highway (in Km):		Carriageway Width (in m)	
Length of Bridge (in m) (if applicable):		Span configuration of bridge (in m):	
Detail description of Actual Services Provided by the firm under different categories: (Please select from the following)			
<p>(ii) For category B-(I)</p> <p><u>Feasibility study:</u></p> <ul style="list-style-type: none"> • 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. <p>Add any other relevant item, if any</p>		<p><u>Detailed Project preparation:</u></p> <ul style="list-style-type: none"> • 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, construction specification etc. <p>Add any other relevant item, if any</p> <p><u>Design review / proof checking</u> of bridges</p>	



a) For category B-(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

Detailed 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, construction specification etc.

Add any other relevant item, if any

Design review / proof checking of bridges

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

Obv

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

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

Signature of the authorized signatory of the firm

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

Chen

UNDERTAKING REGARDING NON-DEBARREMENT/BLACKLISTING/DETAILS OF
LITIGATION HISTORY

Chh

UNDERTAKING REGARDING AVAILABILITY OF EQUIPMENTS MENTIONED IN
APPENDIX-A

Ala