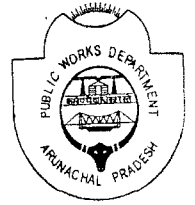


GOVERNMENT OF ARUNACHAL PRADESH
PUBLIC WORKS DEPARTMENT



Office of the Executive Engineer
PW, Division, Mariyang
Email

Phone : 03798-271260 (O)
03798-271250 (R)

No. MRGD/NLCPR/A-45/2010-11/ 811-25

Dated:- 30.08.2010

N O T I C E

In continuation to earlier press notice for NIB of the work " C/o Motorable Steel Arch bridge over river Yamne at Reglat (Bysang) Span-90.00 mtr. " vide NO. MRGD/NLCPR/A-45/560-87 dt.31.07.2010, time of invitation to Bids are extended as under:

1. Last Date of issue of Tender Paper :-10.09.2010 (Upto 1600 Hrs)
2. Last Date and time for receipt of bids :-16.09.2010 (Upto 1500 Hrs)
3. Time & date of opening of technical bids :-16.09.2010 (Upto 1530 Hrs)

Other conditions remain unchanged.

Interested bidder may download bidding documents from www.arunachalpwd.Org.

Executive Engineer,
Mariyang Division, PWD, AP

Copy to:

- 1 The PS to Hon'ble Minister (PWD), for favour of Kind information to HM(PWD) please.
- 2 The Principal Secretary (PWD), Government of Arunachal Pradesh, Itanagar-791111 for favour of kind information.
- 3 The Resident Commissioner, New Delhi/Kolkata for information & wide publicity
- 4 The Chief Engineer, Eastern Zone, PWD, AP, Itanagar for favour of kind information.
- 5 The Chief Engineer, (Highways) PWD, AP, Itanagar for favour of kind information.
- 6 The Chief Engineer, Central Zone, PWD, AP, Itanagar for favour of kind information.
- 7 The Chief Engineer, Western Zone, PWD, AP, Itanagar for favour of kind information.
- 8 The Chief Engineer, Design & Planning, PWD, AP, Itanagar for favour of kind information.
- 9 The Director of Information and Public Relation, Naharlagun-791110 for favour of information and necessary action. He is requested to arrange publication of the above advertisement on 02-09-2010 in one National Newspaper, one Regional Newspaper (preferably 'Assam Tribune') and two local newspapers. Publication of advertisement in National Newspaper may be restricted to Kolkata and New Delhi based editions. The bills for the same may be forwarded to the undersigned for payment. He is further requested to submit the list of newspapers in which the advertisements are published.
- 10 The Deputy commissioner, Upper Siang District for information and wide publicity.
- 11 The Superintending Engineers, Boleng circle, PWD, AP for information and necessary action.
- 12 The Assistant Engineers, Geying, PWD Sub-Division, AP for information and necessary action.
- 13 Notice Board.
- 14 Web site . In charge of IT Centre.(EZ).PWD shall hoist/publish it in the official website of the A.P.P.W.D.
- 15 Web site www.mdoner.gov.in.

Executive Engineer,
Mariyang Division, PWD, AP

GOVERNMENT OF ARUNACHAL PRADESH
PUBLIC WORKS DEPARTMENT

COMPLETE BIDDING DOCUMENT

NAME OF WORK : C/o Motorable Steel Arch bridge over river Yamne at
Reglat (Bysang) Span- 90.00mtr.

ESTIMATED COST OF WORK : Rs. 464.87 LAKHS

EARNEST MONEY/BID SECURITY : Rs. 9.30 LAKHS

STANDARD BIDDING DOCUMENT
PROCUREMENT OF
CIVIL WORKS

C = 0

OW = 0

I = 0

D = 0

Blank

$c = 0$

$ow = 0$

$I = 0$

$D = 0$

1

GOVERNMENT OF ARUNACHAL PRADESH
PUBLIC WORKS DEPARTMENT

AGREEMENT NO. _____

NATIONAL COMPETITIVE BIDDING

(CIVIL WORKS)

NAME OF WORK: C/o Motorable Steel Arch bridge over river Yamne at
Reglat (Bysang) Span- 90.00mtr.

PERIOD OF SALE OF FROM 19-08-2010

BIDDING DOCUMENT TO 02-09-2010.

TIME AND DATE OF PRE- DATE 28-08-2010 TIME 10.30 HOURS
BID CONFERENCE

LAST DATE AND TIME DATE 09-09-2010 TIME 1500 HOURS
FOR RECEIPT OF BIDS

*TIME AND DATE OF DATE 09-09-2010 TIME 1530 HOURS
OPENING TECHNICAL BIDS

*TIME AND DATE OF DATE _____ TIME _____ HOURS _____
OPENING FINANCIAL BIDS

TO BE ANNOUNCED

PLACE OF OPENING
OF BIDS

OFFICE OF THE EXECUTIVE ENGINEER,
MARIYANG ,PWD, AP,MARIYANG,
ARUNACHAL PRADESH.

Phone - cum - Fax No. -/

OFFICER INVITING BIDS OFFICE OF THE EXECUTIVE ENGINEER,
MARIYANG,PWD, AP, MARIYANG,
ARUNACHAL PRADESH.

EXECUTIVE ENGINEER,
MARIYANG, PWD, AP,
MARIYANG, ARUNACHAL PRADESH.

*Should be the same as for the deadline for receipt of bids or promptly thereafter.

C =

OW =

I =

O =

Blank

C=0 OW=0 I=0 D=0



**INVITATION FOR BID
(IFB)**

C=0 OW=0 I=0 D=0



Blank

$$E = 0$$

$$D_W = 0$$

$$I = 0$$

$$D = 0$$



GOVERNMENT OF ARUNACHAL PRADESH
PUBLIC WORK DEPARTMENT
INVITATION FOR BIDS (IFB)
NOTICE INVITING BID(IFB)

Bid No.-CEAP(EZ)WTC-29/ DoNER/...../10-11 dated/2010.
 The Executive Engineer, Mariyang Division, PWD, AP, Mariyang invites bids on behalf of Governor of the Arunachal Pradesh for the Execution of works on Turnkey basis as detailed below.

Package No.	Name of Work	Approximate value of work(s) (Rs.)	Earnest Money/Bid security (Rs.)	Cost of document (Rs.)	Period of completion
1	2	3	4	5	6
1.	Construction Motorable steel Arch bridge over river Yamne at Reglat (Bysang) Span 90.00mtr.	464.87 Lakhs	9.30 Lakhs	2500.00	21(Twenty One) months

- Bidding documents (and additional copies) may be purchased from the office of the Executive Engineer, Mariyang PW, Division Mariyang from 19-08-2010 to 02-09-2010 for a non refundable fee as indicated, in the form of Cash or Demand Draft on any scheduled bank payable at State Bank of India, ^{Mariyang} Along in favour of the Executive Engineer, Mariyang P.W Division. Interested bidder (s) may obtain further information at the same address. Bidding document requested by mail will be dispatched by registered/speed post on payment of an extra amount Rs 750.00. The department will not be held responsible for the postal delays, if any, in the delivery of the documents or non-receipt of the same.
- Bids must be accompanied by security of the amount specified for the work in the table, payable at State Bank of India, ^{Mariyang} Along, drawn in favour of Executive Engineer, Mariyang P.W Division. Bid security will have to be in any one of the forms as specified in the bidding document and shall have to be valid for 45 days beyond the validity of the bid.
- Bids under two separate sealed covers for individual packages super scribed as "Technical Bid" and "Financial Bid" must be delivered to the Executive Engineer, Mariyang PW Division, on working days and latest by 1500 hrs on or before 09-09-2010. The "Technical Bid" will be opened on the same day at 1530 hrs in the presence of bidder(s) who wish to attend or authorized representative of the bidder(s). If the office happens to be closed on the last date of receipt of the bids as specified, the bids will be received and opened on the next working day at the same time and venue. "Technical Bids" shall be evaluated by a standing screening committee whose decision shall be final and the bidder(s) who qualify shall be invited to attend the opening of "Financial Bids" for which the date and venue will be intimated later on.

G-1 (au)+1=2
 0- ML
 1- ML
 P=

Blank



- I₁ 10.30 C₁
4. A pre-bid meeting will be held on 28-08-2010 at ~~1130~~ hrs in the office of the Superintending Engineer, Boleng Circle, PWD, AP, Boleng to clarify the issues and to answer questions on any matter that may be raised at that stage as stated in Clause 9.2 of "Instructions to Bidders" of the document.
 5. The bidder who fulfills the following initial requirements shall only be eligible to participate.
 - (a) Experience of having successfully completed one similar work of aggregate cost not less than Rs 235.00 Lakhs during the last 5 years ending last day of June 2010.
 - (b) Should have had an annual financial turn over in civil engineering construction works in any one year during the last five (5) years ending March, 2010 of value Rs. 665.00 Lakhs.
 6. The bidder will have to produce no due certificate (NDC)/ no objection certificate (NOC) from the Arunachal Pradesh State Co-operative Apex Bank Limited, duly issued by the Managing Director cum Chief Executive Officer, Itanagar in order to participate.
 7. Other details and other documents to be submitted will be as described in the bidding document.
 8. The bidder, at the bidder's own responsibility and risk is encouraged to visit the project site and obtain necessary information related to it to facilitate preparation of the bid.
 9. The information/documents mentioned in (5), (6) and (7) above should be submitted in an orderly manner as and where required by indexing them as detailed in the relevant section(s) of the bidding document. The guarantees, certificates, etc from bank(s) and other authorities and other information shall be furnished as per the standard forms given in the relevant section (s) of the bidding document.

Executive Engineer
Mariyang Division, PWD, AP
Mariyang

Copy to:

- 1) The PS to Hon'ble Minister (PWD), for information of HM (PWD).
- 2) The Principal Secretary (PWD), Govt. of Arunachal Pradesh, Itanagar for information.
- 3) The Resident Commissioner, New Delhi/ Kolkata for information & wide publicity.
- 4) The Dy. Resident Commissioner, Guwahati, Assam/ Shillong , Meghalaya for information & wide publicity.
- 5) The Chief Engineer, Western Zone, PWD, AP, Itanagar, for information and publicity.
- 6) The Chief Engineer, Design & Planning, PWD, AP, Itanagar, for information and publicity.
- 7) The Chief Engineer, Central Zone, PWD, AP, Itanagar, for information and publicity.
- 8) The Director, Department of Information & Public Relations, Government of Arunachal Pradesh ,Itanagar with a request to publish this notice in two local dailies on or before _____ and to forward the necessary bills to this office for payment.
- 9) The Superintending Engineer, Boleng Circle , PWD, AP , Boleng ,for information, and necessary action. .
- 10) The Executive Engineer, Mariyang Division, PWD, AP, Mariyang for information and necessary action.
- 11) The Deputy Commissioner, Upper Siang for information and wide publicity.
- 12) Notice Board.
- 13) Web site www.arunachalpwd.org. In charge of IT Centre, Eastern Zone, PWD shall hoist/publish it in the official website of the A.P.P.W.D.
- 14) Web site www.mdoner.gov.in.

Executive Engineer
Mariyang Division, PWD, AP
Mariyang

SECTION 1
INSTRUCTIONS TO BIDDERS
(ITB)

c = 0 ow = 0 f = 0 D = b



Section 1: Instructions to Bidders [ITB]**Table of Clauses**

	Page No	D		Page No
A. General	12		Submission of Bids	22
1. Scope of Bid	12		19. Sealing and Marking of Bids	22
2. Source of Funds	12		20. Deadline for Submission of Bids	23
3. Eligible Bidders	12		21. Late Bids	23
4. Qualification of the Bidder	12 to 16		22. Modification and withdrawal of Bids	23
5. One Bid per Bidder	16			
6. Cost of Bidding	17			
7. Site Visit	17		E. Bid Opening and Evaluation	23
			23. Bid Opening	23
B. Bidding Documents	17		24. Process to be Confidential	24
8. Content of Bidding Documents	17		25. Clarification of Financial Bids	25
9. Clarification of Bidding Documents	18		26. Examination of Bids and Determination of Responsiveness	25
10. Amendment of Bidding Documents	18		27. Correction of Errors	25
			28. Deleted	26
			29. Evaluation and Comparison of Financial Bids	26
C. Preparation of Bids	19		30. Deleted	26
11. Language of Bid	19			
12. Documents Comprising of Bid	19		F. Award of Contract	26
13. Bid Prices	20		31. Award Criteria	26
14. Currencies of Bid and Payment	20		32. Employer's Right to Accept any Bid and to Reject any or all bids	27
15. Bid Validity	20		33. Notification of Award and Signing of Agreement	27
16. Bid Security	21		34. Performance Security	27
17. Alternative Proposals by Bidders	22		35. Advance Payment and Security	27
18. Format and Signing of Bid	22		36. Dispute Review Report	28
			37. Corrupt or Fraudulent Practices	28

A. GENERAL

1. **Scope of Bid**

- 1.1. The Employer (named in Appendix to ITB) invites bids for the construction of works (as defined in these documents and referred to as "the works") detailed in the table given in IFB. The bidders may submit bids for any or all of the works detailed in the table given in IFB.
- 1.2. The successful bidder will be expected to complete the works by the intended completion date specified in the Contract data.
- 1.3. Throughout these bidding documents, the terms 'bid' and 'tender' and their derivatives (bidder/tenderer, bid/tender, bidding tendering, etc.) are synonymous.

2. **Source of Funds**

- 2.1 The expenditure on this project will be met from the budget of Govt. of India.

3. **Eligible Bidders**

- 3.1 This *Invitation for Bids* is open to all bidders.
- 3.2 All bidders shall provide in Section 2, Forms of Bid and Qualification Information a statement that the Bidder is neither associated, nor has been associated, directly or indirectly, with the Consultant or any other entity that has prepared the design, specifications, and other documents for the Project or being proposed as Project Manager for the Contract. A firm that has been engaged by the Employer to provide consulting services for the preparation or supervision of the works, and any of its affiliates, shall not be eligible to bid.

4. **Qualification of the Bidder**

- 4.1 All bidders shall provide in Section 2, Forms of Bid and Qualification Information, a preliminary description of the proposed work method and schedule, including drawings and charts, as necessary. The proposed methodology should include programme of construction backed with equipment planning and deployment duly supported with board calculations and quality assurance procedures proposed to be adopted justifying their capability of execution and completion of work as per technical specifications, within stipulated period of completion.
- 4.2 *In the event that Pre-qualification of potential bidders has been undertaken, only bids from pre-qualified bidders will be considered for award of Contract. These qualified bidders should submit with their bids any information updating their original prequalification applications or, alternatively, confirm in their bids that the originally submitted prequalification information remains essentially correct as of date of bid submission. The update or confirmation should be provided in Section 2. A copy of the original pre-qualification application and the letter of prequalification should also be furnished. With the updated information, the bidder must continue to be qualified in accordance with the criteria laid down in the pre-qualification document. All bidders shall also furnish the following information in Section 2.

* Delete, if post qualification is to be carried out.

- Deleted*
- (i) Evidence of access to or availability of credit facilities (minimum 10% of estimated cost) certified by the bankers.
 - (ii) Undertaking that bidder would be able to invest a minimum of cost upto 25% of the contract value of work, during implementation of contract.
 - (iii) Proposals, if any, for sub contracting of elements of work, costing more than 10% of the bid amount.
 - (iv) Power of attorney.
 - (v) Latest income tax clearance certificate from concerned department.

4.3.* If the Employer has not undertaken pre-qualification of potential bidders, all bidders shall include the following information and documents with their bids in Section 2:

- (a) copies of original documents defining the constitution or legal status, place of registration, and principal place of business; written power of attorney of the signatory of the Bid to commit the Bidder;
- (b) total monetary value of construction work performed for each of the last five years;
- (c) experience in works of a similar nature and size for each of the last five years, and details of works underway or contractually committed; and clients who may be contacted for further information on those contracts;
- (d) major items of construction equipment proposed to carry out the Contract;
- (e) qualifications and experience of key site management and technical personnel proposed for Contract;
- (f) reports on the financial standing of the Bidder, such as profit and loss statements and auditor's reports for the past five years;
- (g) evidence of access to line (s) of credit and availability of other financial resources facilities (10% of contract value). Certified by the Bankers (Not more than 3 months old).
- (h) undertaking that the bidder will be able to invest a minimum cash upto 25% of contract value of work, during implementation of work.
- (i) authority to seek references from the Bidder's bankers;
- (j) information regarding any litigation, current or during the last five years, in which the Bidder is involved, the parties concerned, and disputed amount;

*Delete, if pre-qualification is to be carried out.

- (k) proposals for subcontracting components of the Works amounting to more than 10 per cent of the Bid Price (for each, the qualifications and experience of the identified sub-contractor in the relevant field should be annexed); and
- (l) the proposed methodology and programme of construction, backed with equipment planning and deployment, duly supported with broad calculations and quality control procedures proposed to be adopted, justifying their capability of execution and completion of the work as per technical specifications within the stipulated period of completion as per milestones (*for all contracts over Rs,5 Crore*),

4.4. ~~Bids from pre-qualified firms or pre-qualified joint ventures only will be acceptable.**~~

4.5. A. To qualify for award of the contract, each bidder in its name should have in the last five years as referred to in Appendix.

- (a) achieved a minimum annual financial turnover (in all classes of civil engineering construction works only) amount indicated in Appendix in anyone year.
- (b) satisfactorily completed (not less than 90% of contract value), as a prime contractor (or as a nominated subcontractor, where the subcontract involved execution of all main items of work described in the bid document, provided further that all other qualification criteria are satisfied) at least **one similar work** of value not less than amount indicated in Appendix (*usually not less than 50% of estimated value of contract*);
- (c) executed in any one year, the minimum quantities of the following items of work as indicated in Appendix.

i	Earth work in F/C	: 1500.00 cum
ii	E/W in excavation in trenches	: 1845.00 cum
iii	Plain RCC M-25	: 225.71 cum
iv	PCC 1:3:6	: 17.50 Sqm
v	Design fabrication & steel	: 356.22 MT
vi	Taking delivery /Erection of steel Arch bridge	: 356.22 MT
vii	HYSD Bar	: 34.20 MT
viii	RCC Approach slab	: 162.00 cum
ix	Copper plate expansion joints	: 10 mtr
x	Black filling	: 104.00 cum
xi	Steel Rocker bearing	: (80x80) Tone capacity

* To be deleted for projects costing Rs. 100 Crores or more

** To be deleted for projects costing less than Rs. 100 Crore

- *~~(d) The contractor or his identified sub-contractor should possess required valid electrical license for executing the building electrification works and should have executed similar electrical works for a minimum amount as indicated in Appendix in anyone year.~~
- *~~(e) The contractor or his identified sub-contractor should possess required valid license for executing the water supply/sanitary engineering works and should have executed similar water supply/sanitary engineering works for a minimum amount as indicated in Appendix in anyone year.~~

B. Each bidder should further demonstrate:

- (a) availability (either owned or leased or by procurement against mobilization advances) of the following key and critical equipment for this work:

[Note: Special equipment for the specialized job available are to be indicated].

Based on the studies, carried out by the Engineer the minimum suggested major equipment to attain the completion of works in accordance with the prescribed construction schedule are shown in the **Annexure-I**.

The bidders should, however, undertake their own studies and furnish with their bid, a detailed construction planning and methodology supported with layout and necessary drawings and calculations (detailed) as stated in clause 4.3 (1) above to allow the employer to review their proposals. The numbers, types and capacities of each plant/equipment shall be shown in the proposals along with the cycle time for each operation for the given production capacity to match the requirements.

- (b) availability for this work of personnel with adequate experience as required; as per **Annexure-II**.
- (c) liquid assets and/or availability of credit facilities of not less than amount indicated in Appendix

(Credit lines/letter of credit/certificates from Banks for meeting the funds requirement etc. -usually the equivalent of the estimated cash flow for 3 months in peak construction period.)

- C. To qualify for a package of contracts made up of this and other contracts for which bids are invited in the IFB**, the bidder must demonstrate having experience and resources sufficient to meet the aggregate of the qualifying criteria for the individual contracts.

- 4.6. Sub-contractors' experience and resources shall not be taken into account in determining the bidder's compliance with the qualifying criteria except to the extent stated in 4.5 (A) above.

* Delete, if not applicable.

- 4.7. Bidders who meet the minimum qualification criteria will be qualified only if their available bid capacity is more than the total bid value. The available bid capacity will be calculated as under:

$$\text{Assessed Available Bid capacity} = (A \times N \times 2 - B)$$

Where

- A** = Maximum value of civil engineering works executed in any one year during the last five years (updated to the price level of the year indicated in Appendix) taking into account the completed as well as works in progress.
- N** = Number of years prescribed for completion of the works for which bids are invited.
- B** = Value (updated to the price level of the year indicated in Appendix) of existing commitments and on-going works to be completed during the next **2 (two)** years (period of completion of the works for which bids are invited).

Note: The statements showing the value of existing commitments and on-going works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the Engineer-in-charge, not below the rank of an Executive Engineer or equivalent.

- 4.8. Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have:
- made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and/or
 - record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.; and/or
 - participated in the previous bidding for the same work and had quoted unreasonably high bid prices and could not furnish rational justification to the employer.

5. One Bid per Bidder

- 5.1 Each bidder shall submit only one bid for one package. A bidder who submits or participates in more than one Bid (other than as a subcontractor or in cases of alternatives that have been permitted or requested) will cause all the proposals with the Bidder's participation to be disqualified.

6. Cost of Bidding

- 6.1. The bidder shall bear all costs associated with the preparation and submission of his Bid, and the Employer will in no case be responsible and liable for those costs.

7. Site Visit

- 7.1. The Bidder, at the Bidder's own responsibility and risk is encouraged to visit and examine the Site of Works and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense.

B. BIDDING DOCUMENTS

8. Content of Bidding Documents

- 8.1. The set of bidding documents comprises the documents listed below and addenda issued in accordance with Clause 10:

Section	Particulars	Volume No.
	Invitation for Bids	I
1	Instructions to Bidders	
2	Qualification Information, and other forms	
3	Conditions of Contract	
4	Contract data	
5	Technical Specification	II
6	Form of bid	III
7	Bill of Quantities	
8	Securities and other forms	
9	Drawings	IV
10	Documents to be furnished by bidder	V

- 8.2. One copy of each of the volumes I, II, III and IV will be issued to the bidder. Documents to be furnished by the bidder in compliance to section 2 will be prepared by him and furnished as Volume-V in two parts (refer clause 12).
- 8.3. The bidder is expected to examine carefully all instructions, conditions of contract, contract data, forms, terms, technical specifications, bill of quantities, forms, Annexes and drawings in the Bid Document. Failure to comply with the requirements of Bid Documents shall be at the bidder's own risk. Pursuant to clause 26 hereof, bids which are not substantially responsive to the requirements of the Bid Documents shall be rejected.

9. Clarification of Bidding Documents

9.1. A prospective bidder requiring any clarification of the bidding documents may notify the Employer in writing or by cable (hereinafter "cable" includes telex and facsimile) at the Employer's address indicated in the invitation to bid. The Employer will respond to any request for clarification which he received earlier than 15 days prior to the deadline for submission of bids. Copies of the Employer's response will be forwarded to all purchasers of the bidding documents, including a description of the enquiry but without identifying its source.

9.2. Pre-bid meeting

9.2.1. The bidder or his official representative is invited to attend a pre-bid meeting which will take place at the address, venue, time and date as indicated in appendix.

9.2.2. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

9.2.3. The bidder is requested to submit any questions in writing or by cable to reach the employer not later than one week before the meeting.

9.2.4. Minutes of the meeting, including the text of the questions raised (without identifying the source of enquiry) and the responses given will be transmitted without delay to all purchasers of the bidding documents. Any modification of the bidding documents listed in Sub-Clause 8.1 which may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of an Addendum pursuant to Clause 10 and not through the minutes of the pre-bid meeting.

9.2.5. Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.

10. Amendment of Bidding Documents

10.1. Before the deadline for submission of bids, the Employer may modify the bidding documents by issuing addenda.

10.2. Any addendum thus issued shall be part of the bidding documents and shall be communicated in writing or by cable to all the purchasers of the bidding documents. Prospective bidders shall acknowledge receipt of each addendum in writing or by cable to the Employer. The Employer will assume no responsibility for postal delays.

10.3. To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer may, at his discretion, extend as necessary the deadline for submission of bids, in accordance with Sub-Clause 20.2 below.

C. PREPARATION OF BIDS

11. Language of the Bid

11.1. All documents relating to the bid shall be in the English language.

12. Documents Comprising the Bid

12.1. The bid to be submitted by the bidder as Volume V of the bid document (refer Clause 8.1) shall be in two separate parts:

Part-I shall be named "**Technical Bid**" and shall comprise

- (i) Bid Security in the form specified in Section 8
- (ii) Qualification Information and supporting documents as specified in Section 2
- (iii) Certificates, undertakings, affidavits as specified in Section 2
- (iv) Any other information pursuant to Clause 4.2 of these instructions
- (v) Undertaking that the bid shall remain valid for the period specified in Clause 15.1
- (vi) Acceptance/non-acceptance of Dispute Review Expert proposed in Clause 36.1

Part II shall be named "**Financial Bid**" and shall comprise

- (i) Form of Bid as specified in Section 6
- (ii) Priced Bill of Quantities for items specified in Section 7

Each part will be separately sealed and marked in accordance with the Sealing and Marking Instructions in Clause 19.

12.2. The bidder shall prepare two copies of the bid, marking them 'Original' and 'Copy' respectively.

12.3. Following documents, which are not submitted with the bid, will be deemed to be part of the bid.

Section	Particulars	Volume No.
	Invitation for Bids (IFB)	
1	Instructions to Bidders	Volume-I
3	Conditions of Contract	
4	Contract Data	
5	Specifications	Volume-II
8	Drawings	Volume-IV

13. Bid Prices

- 13.1 The contract shall be for the whole works as described in Sub-Clause 1.1, based on the priced Bill of Quantities submitted by the Bidder.
- 13.2 The bidder shall fill in rates and prices and line item total (both in figures and words) for all items of the Works described in the Bill of Quantities along with total bid price (both in figures and words). *Items for which no rate or price is entered by the bidder will not be paid for by the Employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities.* Corrections, if any, shall be made by crossing out, initialing, dating and rewriting.
- 13.3 All duties, taxes, and other levies payable by the contractor under the contract, or for any other cause shall be included in the rates, prices and total Bid Price submitted by the Bidder.
- 13.4.* The rates and prices quoted by the bidder shall be fixed for the duration of the Contract and shall not be subject to adjustment on any account (For contracts upto 12 months period).

OR

- 13.4.* The rates and prices quoted by the bidder are subject to adjustment during the performance of the Contract in accordance with the provisions of Clause 47 of the Conditions of Contract (For contracts more than 12 months period).

14. Currencies of Bid and Payment

- 14.1. The unit rates and the prices shall be quoted by the bidder entirely in Indian Rupees. All payments shall be made in Indian Rupees.

15. Bid Validity

- 15.1. Bids shall remain valid for a period not less than 120 days after the deadline date for bid submission specified in Clause 20. A bid valid for a shorter period shall be rejected by the Employer as non-responsive. In case of discrepancy in bid validity period between that given in the undertaking pursuant to Clause 12.1 (v) and the Form of Bid submitted by the bidder, the latter shall be deemed to stand corrected in accordance with the former and the bidder, has to provide for any additional security that is required.
- 15.2 In exceptional circumstances, prior to expiry of the original time limit, the Employer may request that the bidders may extend the period of validity for a specified additional period. The request and the bidders' responses shall be made in writing or by cable. A bidder may refuse the request without forfeiting his bid security. A bidder agreeing to the request will not be required or permitted to modify his bid except as provided in 15.3 hereinafter, but will be required to extend the validity of his bid security for a period of the extension, and in compliance with Clause 16 in all respects.

* Choose one and delete the other

C = 0

OW = 0

I = 0

D = 0

15.3.* In the case of contracts in which the Contract Price is fixed (not subject to price adjustment), in the event that the Employer requests and the Bidder agrees to an extension of the validity period, the contract price, if the Bidder is selected for award shall be the bid price corrected as follows:

The price shall be increased by the factor of 0.2% for each week or part of a week that has elapsed from the expiration of the initial bid validity to the date of issue of letter of acceptance to the successful Bidder.

15.4. Bid evaluation will be based on the bid prices without taking into consideration the above correction.

16. Bid Security

16.1. The Bidder shall furnish, as part of his Bid, a Bid security in the amount as shown in column 4 of the table of IFB for this particular work. This bid security shall be in favour of Employer as named in Appendix and may be in one of the following forms:

- a. Receipt in challan of cash deposit in the Govt. Treasury in India.
 - b. Deposit-at-call Receipt from any scheduled Indian Bank or a foreign Bank located in India and approved by the Reserve Bank of India.
 - c. Indian Post Office National Savings Certificate duly endorsed by the competent postal authority in India.
 - d. Bank Guarantee from any scheduled Indian bank., in the format given in Volume III.
 - e. Fixed Deposit Receipt, a certified cheque or an irrevocable letter of credit, issued by any Scheduled Indian Bank or a foreign Bank approved by the Reserve Bank of India.
- 16.2. Bank guarantees (and other instruments having fixed validity) issued as surety for the bid shall be valid for 45 days beyond the validity of the bid.
- 16.3. Any bid not accompanied by an acceptable Bid Security and not secured as indicated in Sub-Clauses 16.1 and 16.2 above shall be rejected by the Employer as non-responsive.
- 16.4. The Bid Security of unsuccessful bidders will be returned within 28 days of the end of the bid validity period specified in Sub-Clause 15.1.
- 16.5. The Bid Security of the successful bidder will be discharged when the bidder has signed the Agreement and furnished the required Performance Security.
- 16.6. The Bid Security may be forfeited
- (a) if the Bidder withdraws the Bid after Bid opening during the period of Bid validity;
 - (b) if the Bidder does not accept the correction of the Bid Price, pursuant to Clause 27; or

* Delete if the contract is for more than 12 months period

- (c) in the case of a successful Bidder, if the Bidder fails within the specified time limit to
- (i) sign the Agreement; or
 - (ii) furnish the required Performance Security.

17. Alternative Proposals by Bidders

- 17.1. Bidders shall submit offers that fully comply with the requirements of the bidding document including the conditions of contract (including mobilization advance or time for completion), basic technical design as indicated in the drawing and specifications conditional offer or alternative offers will not be considered further in the process of tender evaluation.

18. Format and Signing of Bid

- 18.1. The Bidder shall prepare one original and one copy of the documents comprising the bid as described in Clause 12 of these *Instructions to Bidders*, bound with the volume containing the "Technical Bid" and "Financial Bid" in separate parts and clearly marked "**ORIGINAL**".
- 18.2. The original and copy of the Bid shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the Bidder, pursuant to Sub-Clauses 4.3. All pages of the bid where entries or amendments have been made shall be initialed by the person or persons signing the bid.
- 18.3. The Bid shall contain no alterations or additions, except those to comply with instructions issued by the Employer, or as necessary to correct errors made by the bidder, in which case such corrections shall be initialed by the person or persons signing the bid.

D. SUBMISSION OF BIDS

19. Sealing and Marking of Bids

- 19.1. Bidder shall seal the original and copy of the Bid in separate envelopes, duly marking the envelopes as "**ORIGINAL**". These two envelopes (called as inner envelopes) shall then be put inside one outer envelope. Each set of the inner envelope marked "**ORIGINAL**" shall contain within it two separate sealed envelopes marked "Technical Bid" and "Financial Bid" with additional with additional markings as follows

I 1

- Technical Bid: To be opened on ~~09/09/2010~~ at 1530 hrs in the office of the Executive Engineer PWD Mariyang in the presence of Evaluation Committee.

- Financial Bid: Not to be opened except with the approval of Evaluation Committee

- The contents of Technical and Financial Bids will be as specified in clause 12.1

- 19.2. The inner, outer, and separate envelopes containing Technical and Financial Bids shall
- (a) be addressed to the Employer at the address given in Appendix
 - (b) bear the identification as indicated in Appendix.

- 19.3. In addition to the identification required in Sub-Clauses 19.1 and 19.2, each of the envelopes shall indicate the name and address of the bidder to enable the bid to be returned unopened in case it is declared late, pursuant to Clause 21, or the Evaluation Committee declares the bid as non responsive pursuant to Clause 23.
- 19.4. If the outer envelope is not sealed and marked as above, the Employer will assume no responsibility for the misplacement or premature opening of the bid.

20. Deadline for Submission of the Bids

- 20.1. Complete Bids (including Technical and Financial) must be received by the Employer at the address specified above not later than the date indicated in appendix. In the event of the specified date for the submission of bids declared a holiday for the Employer, the Bids will be received up to the appointed time on the next working day.
- 20.2. The Employer may extend the deadline for submission of bids by issuing an amendment in accordance with Clause 10, in which case all rights and obligations of the Employer and the bidders previously subject to the original deadline will then be subject to the new deadline.

21. Late Bids

- 21.1. Any Bid received by the Employer after the deadline prescribed in Clause 20 will be returned unopened to the bidder.

22. Modification and Withdrawal of Bids

- 22.1. Bidders may modify or withdraw their bids by giving notice in writing before the deadline prescribed in Clause 20 or pursuant to Clause 23.
- 22.2. Each Bidder's modification or withdrawal notice shall be prepared, sealed, marked, and delivered in accordance with Clause 18 & 19, with the outer and inner envelopes additionally marked "**MODIFICATION**" or "**WITHDRAWAL**", as appropriate.
- 22.3. No bid may be modified after the deadline for submission of Bids except in pursuance of Clause 23.
- 22.4. Withdrawal or modification of a Bid between the deadline for submission of bids and the expiration of the original period of bid validity specified in Clause 15.1 above or as extended pursuant to Clause 15.2 may result in the forfeiture of the Bid security pursuant to Clause 16.

E. BID OPENING AND EVALUATION

23. Bid Opening

- 23.1. The Employer will open all the Bids received (except those received late), including modifications made pursuant to Clause 22 in the presence of the Bidders or their representatives who choose to attend at time, date and the place specified in Appendix in the manner specified in Clause 20 and 23.3. In the event of the specified date of Bid opening being declared a holiday for the Employer, the Bids will be opened at the appointed time and location on the next working day.
- 23.2. Envelopes marked "**WITHDRAWAL**" shall be opened and read out first. Bids for which an acceptable notice of withdrawal has been submitted pursuant to Clause 22 shall not be opened.

- 23.3. The envelope containing **"Technical Bid"** shall be opened. The amount, form and validity of the bid security furnished with each bid will be announced. If the bid security furnished does not conform to the amount and validity period as specified in the Invitation for Bid (ref. Column 4 and paragraph 3), and has not been furnished in the form specified in Clause 16, the remaining technical bid and the sealed financial bid will be returned to the bidder.
- 23.4 (i) Subject to confirmation of the bid security by the issuing Bank, the bids accompanied with valid bid security will be taken up for evaluation with respect to the Qualification Information and other information furnished in Part I of the bid pursuant to Clause 12.1.
- (ii) After receipt of confirmation of the bid security, the bidder will be asked (usually within 10 days of opening of the Technical Bid) to clarify or modify his technical bid, if necessary, with respect to any rectifiable defects.
- (iii) The bidders will respond in not more than 7 days of issue of the clarification letter, which will also indicate the date, time and venue of opening of the Financial Bid (usually on the 21st day of opening of the Technical Bid).
- (iv) Immediately (usually within 3 or 4 days), on receipt of these clarifications the Evaluation Committee will finalize the list of responsive bidders whose financial bids are eligible for consideration.
- 23.5. If, as a consequence of the modifications carried out by the bidder in response to sub-clause 23.4, the bidders desire to modify their financial bid, they will submit the modification in separate sealed envelope so as to reach the Employer's address (refer sub-clause 19.2) before the opening of the financial bid as intimated in the clarification letter (refer sub-clause 23.4). The envelope shall have clear marking **"MODIFICATION TO FINANCIAL BID-Not to be opened except with the approval of the Evaluation Committee"**.
- 3.6. At the time of opening of **"Financial Bid"**, the names of the bidders were found responsive in accordance with Clause 23.4 (iv) will be announced. The bids of only these bidders will be opened. The remaining bids will be returned to the bidders unopened. The responsive Bidders' names, the Bid prices, the total amount of each bid, any discounts, Bid Modifications and withdrawals, and such other details as the Employer may consider appropriate, will be announced by the Employer at the opening. Any Bid price or discount, which is not read out and recorded will not be taken into account in Bid Evaluation.
- 23.7. In case bids are invited in more than one package, the order for opening of the **"Financial Bid"** shall be that in which they appear in the **"Invitation For Bid"**.
- 23.8. The Employer shall prepare minutes of the Bid opening, including the information disclosed to those present in accordance with Sub-Clause 23.6.
- 24. Process to be Confidential**
- 24.1 Information relating to the examination, clarification, evaluation, and comparison of Bids and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process until the award to the successful Bidder has been announced. Any effort by a Bidder to influence the Employer's processing of Bids or award decisions may result in the rejection of his Bid.

25. Clarification of Financial Bids

- 25.1. To assist in the examination, evaluation, and comparison of Bids, the Employer may, at his discretion, ask any Bidder for clarification of his Bid, including breakdowns of unit rates. The request for clarification and the response shall be in writing or by cable, but no change in the price or substance of the Bid shall be sought, offered, or permitted except as required to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Bids in accordance with Clause 27.
- 25.2. Subject to sub-clause 25.1, no Bidder shall contact the Employer on any matter relating to his bid from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Employer, it should do so in writing.
- 25.3. Any effort by the Bidder to influence the Employer in the Employer's bid evaluation, bid comparison or contract award decisions may result in the rejection of the Bidders' bid.

26. Examination of Bids and Determination of Responsiveness.

- 26.1. During the detailed evaluation of "Technical Bids", the Employer will determine whether each Bid (a) meets the eligibility criteria defined in Clause 3 and 4; (b) has been properly signed; (c) is accompanied by the required securities and; (d) is substantially responsive to the requirements of the Bidding documents. During the detailed evaluation of the "Financial Bid", the responsiveness of the bids will be further determined with respect to the remaining bid conditions, i.e., priced bill of quantities, technical specifications, and drawings.
- 26.2. A substantially responsive "Financial Bid" is one which conforms to all the terms, conditions, and specifications of the Bidding documents, without material deviation or reservation. A material deviation or reservation is one (a) which affects in any substantial way the scope, quality or performance of the Works; (b) which limits in any substantial way, inconsistent with the Bidding documents, the Employer's rights or the Bidder's obligations under the Contract; or whose rectification would affect unfairly the competitive position of other Bidders presenting substantially responsive Bids.
- 26.3. If a "Financial Bid" is not substantially responsive, it will be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.

27. Correction of Errors

- 27.1. "Financial Bids" determined to be substantially responsive, it will be checked by the Employer for any arithmetic errors. Errors will be corrected by the Employer as follows:
- (a) where there is a discrepancy between the rates in figures and in words, the rate in words will govern; and
 - (b) where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern.
- 27.2. The amount stated in the "Financial Bid" will be corrected by the Employer in accordance with the above procedure and the bid amount adjusted with the concurrence of the Bidder in the following manner:
- (a) If the Bid price increases as a result of these corrections, the amount as stated in the bid will be the 'bid price' and the increase will be treated as rebate;
 - (b) If the bid price decreases as a result of the corrections, the decreased amount will be treated as the 'bid price'

Such adjusted bid price shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected amount the Bid will be rejected, and the Bid security may be forfeited in accordance with Sub-Clause 16.6 (b).

28. Deleted

29. Evaluation and Comparison of Financial Bids

- 29.1. The Employer will evaluate and compare only the Bids determined to be substantially responsive in accordance with Sub-Clause 26.2.
- 29.2. In evaluating the Bids, the Employer will determine for each Bid the evaluated Bid Price by adjusting the Bid Price as follows:
- (a) making any correction for errors pursuant to Clause 27; or
 - (b) making an appropriate adjustments for any other acceptable variations, deviations; and
 - (c) making appropriate adjustments to reflect discounts or other price modifications offered in accordance with Sub-Clause 23.6.
- 29.3. The Employer reserves the right to accept or reject any variation or deviation. Variations and deviations and other factors, which are in excess of the requirements of the Bidding documents or otherwise result in unsolicited benefits for the Employer shall not be taken into account in Bid evaluation.
- 29.4. The estimated effect of the price adjustment conditions under Clause 47 of the *Conditions of Contract*, during the period of implementation of the Contract, will not be taken into account in Bid evaluation.
- 29.5. If the Bid of the successful Bidder is seriously unbalanced in relation to Engineer's estimate of the cost of work to be performed under the contract, the Employer may require the Bidder to produce detailed price analysis for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analysis, the Employer require that the amount of the performance security set forth in Clause 34 be increased at the expense of the successful Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract.
- 29.6. A bid which contains several items in the Bill of Quantities which are unrealistically priced low and which cannot be substantiated satisfactorily by the bidder, may be rejected as non-responsive.

30. Deleted

F. AWARD OF CONTRACT

31. Award Criteria

- 31.1. Subject to Clause 32, the Employer will award the Contract to the Bidder whose Bid has been determined
- (i) to be substantially responsive to the Bidding documents and who has offered the lowest evaluated Bid Price; and
 - (ii) to be within the available bid capacity adjusted to account for his bid price which is evaluated the lowest in any of the packages opened earlier than the one under consideration.

In no case, the contract shall be awarded to any bidder whose available bid capacity is less than the evaluated bid price, even if the said bid is the lowest evaluated bid. The contract will in such cases be awarded to the next lowest bidder at his evaluated bid price.

32. Employer's Right to Accept any Bid and to Reject any or all Bids

- 32.1. Notwithstanding Clause 31, the Employer reserves the right to accept or reject, any Bid, and to cancel the Bidding process and reject all Bids, at any time prior to the award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Employer's action.

33. Notification of Award and Signing of Agreement

- 33.1. The Bidder whose Bid has been accepted will be notified of the award by the Employer prior to expiration of the Bid validity period by cable, telex or facsimile confirmed by registered letter. This letter (hereinafter and in the *Conditions of Contract* called the "Letter of Acceptance") will state the sum that the Employer will pay the Contractor in consideration of the execution, completion, and maintenance of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price").
- 33.2. The notification of award will constitute the formation of the Contract, subject only to the furnishing of a performance security in accordance with the provisions of Clause 34.
- 33.3. The Agreement will incorporate all agreements between the Employer and the Bidder. It will be signed by the Employer and sent to the successful Bidder, within 28 days following the notification of award along with the Letter of Acceptance. Within 21 days of receipt, the successful Bidder will sign the Agreement and deliver it to the Employer.
- 33.4. Upon the furnishing by the successful Bidder of the Performance Security, the Employer will promptly notify the other Bidders that their Bids have been unsuccessful.

34. Performance Security

- 34.1. Within 21 days of receipt of the Letter of Acceptance, the successful Bidder shall deliver to the Employer a Performance Security in any of the forms given below for an amount equivalent to 5% of the Contract price plus additional security for unbalanced Bids in accordance with Clause 29.5 of ITB and Clause 52 of Conditions of Contract:
- a bank guarantee in the form given in Section 8; or
 - certified Cheque/Bank Draft as indicated in Appendix.
- 34.2. If the performance security is provided by the successful Bidder in the form of a Bank Guarantee, it shall be issued either (a) at the Bidder's option, by a Nationalized/Scheduled Indian bank or (b) by a foreign bank located in India and acceptable to the Employer.
- 34.3. Failure of the successful Bidder to comply with the requirements of Sub-Clause 34.1 shall constitute sufficient grounds for cancellation of the award and forfeiture of the Bid Security.

35. Advance Payment and Security

- 35.1. The Employer will provide an Advance Payment on the Contract Price as stipulated in the Conditions of Contract, subject to maximum amount, as stated in the Contract Data.

36. Dispute Review Expert

- 36.1. The Employer proposes that [name of proposed Dispute Review Expert as indicated in Appendix] be appointed as Dispute Review Expert under the Contract, at a daily fee as indicated in Appendix plus reimbursable expenses. If the Bidder disagrees with this proposal, the Bidder should so state in the Bid. If in the Letter of Acceptance, the Employer has not agreed on the appointment of the Dispute Review Expert, the Dispute Review Expert shall be appointed by the Council of Indian Roads Congress at the request of either party.

37. Corrupt or Fraudulent Practices

- 37.1. The Employer will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question and will declare the firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract with National Highways Authority of India/State PWD and any other agencies, if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for the contractor, or in execution.
- 37.2. Furthermore, Bidders shall be aware of the provision stated in Sub-Clause 23.2 and Sub-Clause 59.2 of the Conditions of Contract.

C = 0

OW = 0

D = 0

I = 0

APPENDIX to ITB
Clause Reference
with respect to
Section-I.

1. Name of the Employer Chief Engineer (EZ), Arunachal Pradesh, PWD. [Cl.1.1.1]
2. The Last five years
 - 2005 - 2006
 - 2006 - 2007
 - 2007 - 2008
 - 2008 - 2009
 - 2009 - 2010
3. This annual financial turn over amount is R s. 464.87 Lakhs (Rupees four hundred sixty four lakhs and eighty seven thousand only) [C1.4.5A(a)]
4. Value of work is Rs. 235.00 Lakhs (Rupees Two hundred thirty five lakhs only) [C1.4.5A(b)]
5. Quantities of work are: [C1.4.5A(c)]
 - i Earth work in F/C : 1500.00 cum
 - ii E/W in excavation in trenches : 1845.00 cum
 - iii Plain RCC M-25 : 225.71 cum
 - iv PCC 1:3:6 : 17.50 Sqm
 - v Design fabrication & steel : 356.22 MT
 - vi Taking delivery /Erection of steel Arch bridge : 356.22 MT
 - vii HYSD Bar : 34.20 MT
 - viii RCC Approach slab : 162.00 cum
 - ix Copper plate expansion joints : 10 mtr
 - x Black filling : 104.00 cum
 - xi Steel Rocker bearing : (80x80) Tone capacity
6. The cost of electric work is Rs. _____ NA _____ [C1.4.5A(d)]
7. The cost of water supply/sanitary works is Rs. _____ NA _____ [C1.4.5A(e)]

_____ (In works).
8. Liquid assets and/or availability of credit facilities is Rs. 50.00 lakh (Rupees Fifty lakhs) only. [C1.4.5B(c)]

C = 0

OW = 0

I = 0

D = 0

9. Price level of the financial year **2010-11** [C1.4.7]
10. The pre-bid meeting will take place at **Superintending Engineer, Boleng circle, PWD, AP, Boleng.** [C1.9.2.1]
11. The technical bid will be opened at **Office of the Executive Engineer Mariyang, PW Division, Mariyang on 09/09/2010 -- 1530 hrs**
12. Address of the Employer: **Chief Engineer (EZ)** [C1.4.5(a)]
Arunachal Pradesh PWD
Itanagar 791111
13. Identification: SE: PWD: **Boleng** and EE: PWD: **Mariyang.** [C1.19.2(b)]
- Bid for C/o Motorable steel Arch bridge over river Yamne at Reglat (Bysang) span -90.00mtr.
 - Bid reference No.CEAP(EZ)/WTC-29/DoNER/Reglat bridge /2010-2011/ Dated
 - Do not open before 09/09/2010 at 1530 hrs
14. The bid should be submitted, latest by, in the **Office of Executive Engineer PWD Mariyang 9/9/2010 at 1500 hrs** [C1.20.1(a)]
15. The bid will be opened at **Office of Executive Engineer PWD Mariyang on 09/09/2010 at 1530 hrs** [C1.23.1]
16. The Bank Draft in favour of **Executive Engineer PWD** payable at **SBI Mariyang**. [C1.34.1]
17. The name of Dispute Review Expert is **Mr. M.N.Bhaghawati.** [C1.36.1]
18. Escalation factors (for the cost of works executed and financial figure to a common base value for works completed)

<u>Year Before</u>	<u>Multiply factor</u>
One	1.1
Two	1.21
Three	1.33
Four	1.46
Five	1.61

ANNEXURE-I**List of Key Plant & Equipment to be deployed on Contract Work**

[Reference C1.4.5 (B) (a)]

Sl. No.	Type of Equipment	Maximum age as on 01.4.2010 (Years)	Contractor Package Size		
			Upto Rs. 30 crore	Upto Rs. 30-51 crore	Upto Rs. 51 crore & Above
1.	Motor Grader	5	2	3	5
2.	Dozer	5	1	1	2
3.	Front end Loader	5	1	2	3
4.	Smooth Wheeled Roller	5	2	2	3
5.	Vibratory Roller	5	1	1	2
6.	Hot Mix Plant with Electronic Controls (Minimum 80-100 TPH)	5	1	1	2
7.	Paver Finisher with Electronic Sensor.	5	1	1	2
8.	Water Tanker	5	2	3	4
9.	Bitumen Sprayer	5-7	1	1	2
10.	Tandem Roller	5	1	2	2
11	Concrete Mixes with Integral weigh Batching.	5	1	1	1
12	Concrete Batching and Mixing Plan (Minimum Capacity – 15m ³ /hours)	5	-----	-----	1
	Total =		14	18	29

C=0

OW=0

D=0

I=0

List of Key Personnel to be deployed on Contract Work

[Reference C1.4.5 (B) (b)]

Sl. No.	Personnel	Qualification	Contract Package Size		
			Up to Rs. 30 Crores	Rs.31-50 Crores	Rs.51 Crores & above
1	Project Manager	B.E. Civil + 15 Years Exp. (5 years as Manager)	1 No.	1 No.	1 No.
2	Site Engineer	B.E. Civil + 10 Years Exp. (5 Years in Road construction)	1 No.	2 Nos.	4 Nos.
3	Plant Engineer	B.E. Mech. + 10 Years Exp. Or Dip. Mech + 15 years Exp.	1 No.	1 No.	2 Nos.
4	Quantity Surveyor	B.E. Civil + 7 years Exp. Or Dip. Civil + 10 years Exp.	1 No.	1 No.	2 Nos.
5	Soil & Material Engineer	B.E. Civil + 10 years Exp.	1 No.	1 No.	2 Nos.
6	Survey Engineer	B.E. Civil + 5 Years Exp. Or Dip. Civil + 8 years Exp.	1 No.	1 No.	2 Nos.
		Total	6	7	13

SECTION 2
QUALIFICATION INFORMATION

C = 0 OW = 0 D = 0 I = 0

Blank

$C=0$ $OW=0$ $D=0$ $I=0$



QUALIFICATION INFORMATION

The information to be filled in by the Bidder in the following pages will be used for purposes of post qualification as provided for in Clause 4 of the Instructions to Bidders. This information will not be incorporated in the Contract.

1. For Individual Bidders

1.1. Constitution or legal status of Bidder
(Attach copy)

Place of registration: _____

Principal place of business: _____

Power of attorney of signatory of Bid
(Attach)

1.2. Total value of Civil Engineering construction work performed in the last five years**
(in Rs.in **lakh**)

2005-2006	B
2006-2007	
2007-2008	
2008-2009	
2009-2010	

1.3.1 Work performed as prime contractor, work performed in the past as a nominated sub-contractor will also be considered provided the sub-contract involved execution of all main items of work described in the bid document, provided further that all other qualification criteria are satisfied (in the same name) on works of a similar nature over the last five years.**

Project Name	Name of the Employer *	Description of work	Contract No.	Value of Contract (Rs. Crore)	Date of issue of work order	Stipulated period of completion	Actual date of completion*	Remarks explaining reasons for delay and work Completed

* Attach certificate(s) from the Engineer(s)-in-Charge

** immediately preceding the financial year in which bids are received

B Attach certificate from Chartered Accountant.

- #1.3.2. Quantities of work executed as prime contractor, work performed in the past as a nominated sub-contractor, will also be considered provided the sub-contract involved execution of all main items of work described in the bid document, provided further that all other qualification criteria are satisfied (in the same name and style) in the last five years: **

Year	Name of the work	Name of the Employer*	Quantity of work performed			Remarks (indicate contract Ref)
			Fabrication of steel superstructure of cable supported bridge	Fabrication of steel superstructure for other type of bridges		
2005-2006						
2006-2007						
2007-2008						
2008-2009						
2009-2010						

- 1.4. Information on Bid Capacity (works for which bids have been submitted and works which are yet to be completed) as on the date of this bid.

(A) Existing commitments and on-going works:

Description of works	Place & State	Contract No.	Name & Address of Employer	Value of Contract (Rs. Cr)	Stipulated Period of Completion	Value of works* remaining to be completed (Rs. Cr)	Anticipated date of completion
1	2	3	4	5	6	7	8

* Attach certificate(s) from the Engineer(s)-in-Charge

@ The item of work for which data is requested should tally with that specified in ITB clause 4.5A(c)

** immediately preceding the financial year in which bids are received.

Delete, if pre-qualification has been carried out

(B) Works for which bids already submitted:

Description of works	Place & State	Name & Address of Employer	Estimated value of works (Rs.Cr)	Stipulated period of completion	Date when decision is expected	Remarks, if any
1	2	3	4	5	6	7

- 1.5 Availability of key items of Contractor's Equipment essential for carrying out the Works [Ref. Clause 4.5 (B)(a)]. The Bidder should list all the information requested below. Refer also to Sub Clause 4.3 (d) of the Instructions to Bidders. **[Note: indicate the special type of equipment available with the bidder for the specialized job]**

Item of Equipment	Availability proposals			Remarks (from whom to be purchased)
	Owned/Leased to be procured	Nos./Capacity	Age/Condition	

- 1.6. Qualifications and experience of key personnel required for administration and execution of the Contract [Ref. Clause 4.5(B)(b)]. Attach biographical data. Refer also to Sub Clause 4.3 (E) of instructions to Bidders and Sub Clause 9.1 of the Conditions of Contract.

Position	Name	Qualification	Year of Experience (General)	Years of experience in the proposed position
Project Manager				
Etc.				

- 1.7. Proposed sub-contracts and firms involved. [Refer ITB Clause 4.3 (k)]

Sanctions of the works	Value of Sub-contract	Sub-contractor (Name & Address)	Experience in similar work

Attach copies of certificates on possession of valid license for executing water supply/ sanitary work/ building electrification works [Reference Clause 4.5(d) & Clause 4.5 (e)]

- 1.8. Financial reports for the last five years: balance sheets, profit and loss statements, auditors' reports (in case of companies/corporation), etc. List them below and attach copies.
- 1.9. Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit, etc. List them below and attach copies of support documents.
- 1.10. Name, address, and telephone, telex, and fax numbers of the Bidders' bankers who may provide references if contacted by the Employer.
- 1.11. Information on litigation history in which the Bidder is involved.

Other Party (ies)	Employer	Cause of Dispute	Amount involved	Remarks showing Present Status

1.12. Statement of compliance under the requirements of Sub Clause 3.2 of the instructions to Bidders. (Name of Consultant engaged for project preparation is **)

1.13. Proposed work method and schedule. The Bidder should attach descriptions, drawings and charts as necessary to comply with the requirements of the Bidding documents. [Refer ITB Clause 4.1 & 4.3 (1)]

- 1.14. Programme
- 1.15. Quality Assurance Programme

2. Deleted
3. Additional Requirements

- 3.1. Bidders should provide any additional information required to fulfill the requirements of Clause 4 of the Instructions to the Bidders, if applicable.
 - (i) Affidavit
 - (ii) Undertaking
 - *** (iii) Update of original pre-qualification application
 - *** (iv) Copy of original pre-qualification application
 - *** (v) Copy of pre-qualification letter

* Delete, if pre-qualification has been carried out.
 ** Fill the Name of Consultant
 *** Delete, if pre-qualification has not been carried out.

SAMPLE FORMAT FOR EVIDENCE OF ACCESS TO OR
AVAILABILITY OF CREDIT FACILITIES

(CLAUSE 4.2 (i) OF ITB)

BANK CERTIFICATE

This is to certify that M/s. _____ is a reputed company with a good financial standing.

If the contract for the work, namely _____ is awarded to the above firm, we shall be able to provide overdraft/credit facilities to the extent of Rs. _____ to meet their working capital requirements for executing the above contract during the contract period.

(Signature)
Name of Bank
Senior Bank Manager
Address of the Bank

C=0 OW=0 D=0 I=0

AFFIDAVIT

1. I, the undersigned, do hereby certify that all the statements made in the required attachments are true and correct.
2. The undersigned also hereby certifies that neither our firm M/s _____ have abandoned any work on National Highways in India nor any contract awarded to us for such works have been rescinded, during last five years prior to the date of this bid.
3. The undersigned hereby authorize(s) and request(s) any bank, person, firm or corporation to furnish pertinent information deemed necessary and requested by the Department to verify this statement or regarding my (our) competence and general reputation.
4. The undersigned understand and agrees that further qualifying information may be requested, and agrees to furnish any such information at the request of the Department/Project implementing agency.

(Signed by an Authorised Officer of the Firm)

Title of Officer

Name of Firm

DATE

C = 0 OW = 0 D > 0 J = 0

UNDERTAKING

I, the undersigned do hereby undertake that our firm M/s _____ would invest a minimum cash upto 25% of the value of the work during implementation of the Contract.

(Signed by an Authorized Officer of the Firm)

Title of Officer

Name of Firm

DATE

C = 0 OW = 0 D = 0 I = 0

SECTION 3
CONDITIONS OF CONTRACT

C=0 OW=0 D=0 I=0


Blank

$$c=0 \quad \partial w=0 \quad \partial z=0 \quad \Gamma=0$$

Conditions of Contract Table of Contents

A. General	Page No	C. Quality Control	Page No
1. Definitions	47	33. Identifying Defects	55
2. Interpretation	48	34. Tests	55
3. Language and Law	49	35. Correction of Defects	55
4. Engineer's Decisions	49	36. Uncorrected Defects	55
5. Delegation	49		
6. Communications	49	D. Cost Control	55
7. Sub-contracting	49	37. Bill of Quantities	55
8. Other Contractors	50	38. Changes in the Quantities	55
9. Personnel	50	39. Variations	56
10. Employer's & Contractor's risk	50	40. Payments for Variations	56
11. Employer's Risks	50	41. Cash Flow Forecasts	56
12. Contractor's Risks	50	42. Payment Certificates	56
13. Insurance	50	43. Payments	57
14. Site Investigation Reports	51	44. Compensation Events	57
15. Queries about the Contract Data	51	45. Tax	58
16. Contractor to Construct the Works	51	46. Currencies	59
17. The Works to be Completed by the Intended Completion Date	51	47. Price Adjustment	59
18. Approval by the Engineer	51	48. Retention	59
19. Safety	52	49. Liquidated Damages	59
20. Discoveries	52	50. Bonus	60
21. Possession of the Site	52	51. Advance Payment	60
22. Access to the Site	52	52. Securities	61
23. Instructions	52	53. Deleted	61
24. Disputes	52	54. Cost of Repairs	61
25. Procedure for Disputes	52		
26. Replacement of Disputes Review Expert	53	E. Finishing the Contract	61
		55. Completion	61
B. Time Control	53	56. Taking Over	61
27. Programme	53	57. Final Account	61
28. Extension of the Intended Completion Date	53	58. Operating and Maintenance Manual	62
29. Deleted	54	59. Termination	62
30. Delays Ordered by the Engineer	54	60. Payment upon Termination	63
31. Management Meetings	54	61. Property	63
32. Early Warning	54	62. Release from Performance	63
		F. Special Conditions of Contract	64

Blank

$C=0$ $DW=0$ $D=0$ $I=0$ 

CONDITIONS OF CONTRACT

A. GENERAL

1. **Definitions**

- 1.1. Terms which are defined in the Contract Data are not also defined in the Conditions of Contract but keep their defined meanings. Capital initials are used to identify defined terms.

The **Adjudicator** (synonymous with **Dispute Review Expert**) is the person appointed jointly by the Employer and the Contractor to resolve disputes in the first instance, as provided for in Clauses 24 and 25. The name of the Adjudicator is defined in the Contract Data.

Bill of Quantities means the priced and completed Bill of Quantities forming part of the Bid.

Compensation Events are those defined in Clause 44 hereunder.

The **Completion Date** is the date of completion of the Works as certified by the Engineer in accordance with Sub Clause 55.1.

The **Contract** is the contract between the Employer and the Contractor to execute, complete and maintain the Works. It consists of the documents listed in Clause 2.3 below.

The **Contract Data** defines the documents and other information which comprise the Contract.

The **Contractor** is a person or corporate body whose Bid to carry out the Works has been accepted by the Employer.

The **Contractor's Bid** is the completed Bidding document submitted by the Contractor to the Employer and includes Technical and Financial bids.

The **Contract price** is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract.

Days are calendar days; **months** are calendar months.

A **Defect** is any part of the Works not completed in accordance with the Contract.

The **Defects Liability Period** is the period named in the Contract data and calculated from the Completion Date.

The **Employer** is the party who will employ the Contractor to carry out the Works.

The **Engineer** is the person named in the Contract Data (or any other competent person appointed and notified to the Contractor to act in replacement of the Engineer) who is responsible for supervising the Contractor, administering the Contract, certifying payments due to the Contractor, issuing and valuing Variations to the Contract, awarding extensions of time, and valuing the Compensation Events.

Equipment is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.

The **Initial Contract Price** is the Contract Price listed in the Employer's Letter of Acceptance.

The **Intended Completion Date** is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is specified in the Contract Data. The Intended Completion Date may be revised only by the Engineer by issuing an extension of time.

Materials are all supplies, including consumables, used by the contractor for incorporation in the Works.

Plant is an integral part of the Works which is to have a mechanical, electrical, electronic or chemical or biological function.

The **Site** is the area defined as such in the Contract Data.

Site Investigation Reports are those which were included in the Bidding documents and are factual interpretative reports about the surface and sub-surface conditions at the site.

Specification means the Specification of the Works included in the Contract and any modification or addition made or approved by the Engineer.

The **Start Date** is given in the Contract Data. It is the date when the Contractor shall commence execution of the works. It does not necessarily coincide with any of the Site Possession Dates.

A **Subcontractor** is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract which includes work on the site.

Temporary Works are works designed, constructed, installed and removed by the Contractor which are needed for construction or installation of the Works.

A **Variation** is an instruction given by the Engineer, which varies the Works.

The **Works** are what the Contract requires the Contractor to construct, install, and turn over to the Employer, as defined in the Contract Data.

2. Interpretation

2.1 In interpreting these Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Engineer will provide instructions clarifying queries about the Conditions of Contract.

2.2 If sectional completion is specified in the Contract Data, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion date for the whole of the Works).

- 2.3 The documents forming the Contract shall be interpreted in the following order of priority:
- (1) Agreement
 - (2) Letter of Acceptance, notice to proceed with the works
 - (3) Contractor's Bid
 - (4) Contract Data
 - (5) Conditions of Contract including Special Conditions of Contract
 - (6) Specifications
 - (7) Drawings
 - (8) Bill of quantities and
 - (9) any other document listed in the Contract Data as forming part of the Contract.
- 3. Language and Law**
- 3.1 The language of the Contract and the law governing the Contract are stated in the Contract Data.
- 4. Engineer's Decisions**
- 4.1. Except where otherwise specifically stated, the Engineer will decide contractual matters between the Employer and the Contractor in the role representing the Employer.
- 5. Delegation**
- 5.1 The Engineer may delegate any of his duties and responsibilities to other people except to the Adjudicator after notifying the Contractor and may cancel any delegation after notifying the Contractor.
- 6. Communications**
- 6.1. Communications between parties which are referred to in the conditions are effective only when in writing. A notice shall be effective only when it is delivered (in terms of Indian Contract Act).
- 7. Sub-contracting**
- 7.1. The Contractor may sub-contract any portion of work, upto a limit specified in Contract Data, with the approval of the Engineer but may not assign the Contract without the approval of the Employer in writing. Sub-contracting does not alter the Contractor's obligations.

8. Other Contractors

- 8.1. The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of other Contractors. The Contractor shall as referred to in the Contract Data, also provide facilities and services for them as described in the Schedule. The employer may modify the schedule of other contractors and shall notify the contractor of any such modification.

9. Personnel

- 9.1. The Contractor shall employ the key personnel named in the Schedule of Key Personnel as referred to in the Contract Data to carry out the functions stated in the Schedule or other personnel approved by the Engineer. The Engineer will approve any proposed replacement of key personnel only if their qualifications, abilities, and relevant experience are substantially equal to or better than those of the personnel listed in the Schedule.
- 9.2. If the Engineer asks the Contractor to remove a person who is a member of the Contractor's staff or his work force stating the reasons the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the work in the Contract.

10. Employer's and Contractor's Risks

- 10.1. The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.

11. Employer's Risks

- 11.1. The Employer is responsible for the excepted risks which are (a) in so far as they directly affect the execution of the Works in India, the risks of war, hostilities, invasion, act of foreign enemies, rebellion, revolution, insurrection or military or usurped power, civil war, riot commotion or disorder (unless restricted to the Contractor's employees), and contamination from any nuclear fuel or nuclear waste or radioactive toxic explosive, or (b) a cause due solely to the design of the Works, other than the Contractor's design.

12. Contractor's Risks

- 12.1. All risks of loss of or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract other than the excepted risks are the responsibility of the Contractor.

13. Insurance

- 13.1. The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles stated in the Contract Data for the following events which are due to the Contractor's risks:

- (a) loss of or damage to the Works, Plant and Materials;
 - (b) loss of or damage to Equipment;
 - (c) loss of or damage of property (except the Works, Plant, Materials and Equipment) in connection with the Contract; and
 - (d) personal injury or death.
- 13.2. Policies and certificates for insurance shall be delivered by the Contractor to the Engineer for the Engineer's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.
- 13.3. If the Contractor does not provide any of the policies and certificates required, the Employer may effect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.
- 13.4. Alterations to the terms of insurance shall not be made without the approval of the Engineer.
- 13.5. Both parties shall comply with any conditions of the insurance policies.
- 14. Site Investigation Reports**
- 14.1. The Contractor in preparing the Bid, shall rely on any site Investigation Reports referred to in the Contract Data, supplemented by any information available to the Bidder.
- 15. Queries about the Contract Data**
- 15.1. The Engineer will clarify queries on the Contract Data.
- 16. Contractor to Construct the Works**
- 16.1. The Contractor shall construct and install the Works in accordance with the Specification and Drawings.
- 17. The Works to be Completed by the Intended Completion Date**
- 17.1. The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the programme submitted by the Contractor, as updated with the approval of the Engineer, and complete them by the Intended Completion Date.
- 18. Approval by the Engineer**
- 18.1. The Contractor shall submit Specification and Drawings showing the proposed Temporary Works to the Engineer, who is to approve them if they comply with the specification and Drawings.
- 18.2. The Contractor shall be responsible for design of Temporary Works.
- 18.3. The Engineer's approval shall not alter the Contractor's responsibility for design of the Temporary Works.
- 18.4. The Contractor shall obtain approval of third parties to the design of the Temporary Works where required.
- 8.5. All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Engineer before their use.

19. Safety

19.1. The Contractor shall be responsible for the safety of all activities on the Site.

20. Discoveries

20.1. Anything of historical or other interest or of significant value unexpectedly discovered on the Site is the property of the Employer. The Contractor is to notify the Engineer of such discoveries and carry out the Engineer's instructions for dealing with them.

21. Possession of the Site

21.1. The Employer shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date stated in the Contract Data the Employer is deemed to have delayed the start of the relevant activities and this will be Compensation Event.

22. Access to the Site

22.1. The contractor shall allow the Engineer and any person authorized by the Engineer access to the Site, to any place where work in connection with the Contract is being carried out or is intended to be carried out and to any place where materials or plant are being manufactured/fabricated/assembled for the works.

23. Instructions

23.1. The Contractor shall carry out all instructions of the Engineer pertaining to works which comply with the applicable laws where the Site is located.

23.2. The Contractor shall permit the Employer to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by the Employer, if so required by the Employer.

24. Disputes

24.1. If the Contractor believes that a decision taken by the Engineer was either outside the authority given to the Engineer by the Contract or that the decision was wrongly taken, the decision shall be referred to the Dispute Review Expert within 14 days of the notification of the Engineer's decision.

25. Procedure for Disputes

25.1. The Dispute Review Expert (Board)* shall give a decision in writing within 28 days of receipt of a notification of a dispute.

*Disputes Review Expert to be provided for works costing up to Rs. 50 Crores. Dispute Review Board of three members (One from Employer, One from Contractor and One to be nominated by IRC Council and agreed by the representative members of Employer and Contractor) for works costing more than Rs. 50 Crores.

- 25.2. The Dispute Review Expert (Board)* shall be paid daily at the rate specified in the Contract Data together with reimbursable expenses of the types specified in the Contract Data and the cost shall be divided equally between the Employer and the Contractor, whatever decision is reached by the Dispute Review Expert. Either party may give notice to the other to refer a decision of the Dispute Review Expert to an Arbitrator within 28 days of the Dispute Review Expert's written decision. If neither party refers the dispute to arbitration within the next 28 days, the Dispute Review Expert's decision will be final and binding.
- 25.3. The arbitration shall be conducted in accordance with the arbitration procedure stated in the Special Conditions of Contract.

26. Replacement of Dispute Review Expert

- 26.1. Should the Dispute Review Expert resign or die, or should the Employer and the Contractor agree that the Dispute Review Expert is not fulfilling his functions in accordance with the provisions of the Contract, a new Dispute Review Expert will be jointly appointed by the Employer and the Contractor. In case of disagreement between the Employer and the Contractor within 30 days, the Dispute Review Expert shall be designated by the Appointing Authority designated in the Contract Data at the request of either party, within 14 days of receipt of such request.

B. TIME CONTROL

27. Programme

- 27.1. Within the time stated in the Contract Data the Contractor shall submit to the Engineer for approval a Programme showing the general methods, arrangements, order, and timing for all the activities in the Works along with monthly cash flow forecast.
- 27.2. An update of the Programme shall be a programme showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work including any changes to the sequence of the activities.
- 27.3. The Contractor shall submit to the Engineer, for approval, an updated Programme at intervals no longer than the period stated in the Contract Data. If the Contractor does not submit an updated Programme within this period, the Engineer may withhold the amount stated in the Contract Data from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Programme has been submitted.
- 27.4. The Engineer's approval of the Programme shall not alter the Contractor's obligations. The Contractor may revise the Programme and submit it to the Engineer again at any time. A revised Programme is to show the effect of Variations and Compensation Events.

28. Extension of the Intended Completion Date

- 28.1. The Engineer shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work and which would cause the Contractor to incur additional cost.

- 28.2 The Engineer shall decide whether and by how much to extend the Intended Completion Date within 35 days of the Contractor asking the Engineer for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.
- 28.3 The Engineer shall within 14 days of receiving full justification from the contractor for extension of Intended Completion Date refer to the Employer his decision. The Employer shall in not more than 21 days communicate to the Engineer the acceptance or otherwise of the Engineer's decision. If the Employer fails to give his acceptance, the Engineer shall not grant the extension and the contractor may refer the matter to the Dispute Review Expert under Clause 24.1.
- 28.3A. In exercise of provisions contained in clause 28.30 of condition of contract, the Superintending Engineer shall take decision on behalf of employer which shall be final and binding.
- 29. Deleted**
- 30. Delays Ordered by the Engineer**
- 30.1 The Engineer may instruct the Contractor to delay the start or progress of any activity within the Works.
- 31. Management Meetings**
- 31.1 Either the Engineer or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.
- 31.2 The Engineer shall record the business of management meetings and is to provide copies of his record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken is to be decided by the Engineer either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.
- 32. Early Warning**
- 32.1 The Contractor is to warn the Engineer at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price or delay the execution of works. The Engineer may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate is to be provided by the Contractor as soon as reasonably possible.
- 32.2 The Contractor shall cooperate with the Engineer in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Engineer.

C. QUALITY CONTROL

33. Identifying Defects

33.1 The Engineer shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Engineer may instruct the Contractor to search for a Defect and to uncover and test any work that the Engineer considers may have a Defect.

34. Tests

34.1 If the Engineer instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect the test shall be a Compensation Event.

35. Correction of Defects

35.1 The Engineer shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion and is defined in the Contract Data. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

35.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Engineer's notice.

36. Uncorrected Defects.

36.1 If the Contractor has not corrected a Defect within the time specified in the Engineer's notice, the Engineer will assess the cost of having the Defect corrected, and the Contractor will pay this amount.

D. COST CONTROL

37. Bill of Quantities

37.1 The Bill of Quantities shall contain items for the construction, installation, testing, and commissioning work to be done by the Contractor.

37.2 The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item.

38. Changes in the Quantities

38.1 If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25 per cent provided the change exceed 1% of initial Contract Price, the Engineer shall adjust the rate to allow for the change, duly considering,

- (a) justification for rate adjustment as furnished by the contractor,
- (b) economics resulting from increase in quantities by way of reduced plant, equipment, and overhead costs,
- (c) entitlement of the contractor to compensation events where such events are caused by any additional work.

38.2 The Engineer shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 15 per cent, except with the Prior approval of the Employer.

38.3 If requested by the Engineer, the Contractor shall provide the Engineer with a detailed cost breakdown of any rate in the Bill of Quantities.

39. Variations

39.1 All Variations shall be included in updated Programmes produced by the Contractor.

40. Payments for Variations

40.1 The Contractor shall provide the Engineer with a quotation (with breakdown of unit rates) for carrying out the Variation when requested to do so by the Engineer. The Engineer shall assess the quotation, which shall be given within seven days of the request or within any longer period stated by the Engineer and before the Variation is ordered.

40.2 If the work in the Variation corresponds with an item description in the Bill of Quantities and if, in the opinion of the Engineer, the quantity of work above the limit stated in Sub-Clause 38.1 or the timing of its execution do not cause the cost per unit of quantity to change, the rate in the Bill of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the Variation does not correspond with items in the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of work.

40.3 If the Contractor's quotation is unreasonable, the Engineer may order the Variation and make a change to the Contract Price which shall be based on Engineer's own forecast of the effects of the Variation on the Contractor's costs.

40.4 If the Engineer decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.

40.5 The Contractor shall not be entitled to additional payment for costs which could have been avoided by giving early warning.

41 Cash Flow Forecasts

41.1 When the Programme is updated, the contractor is to provide the Engineer with an updated cash flow forecast.

42. Payment Certificates

42.1 The Contractor shall submit to the Engineer monthly statements of the estimated value of the work completed less the cumulative amount certified previously.

- 42.2 The Engineer shall check the Contractor's monthly statement within 14 days and certify the amount to be paid to the Contractor after taking into account any credit or debit for the month in question in respect of materials for the works in the relevant amounts and under conditions set forth in sub-clause 51(3) of the Contract Data (Secured Advance).
- 42.3 The value of work executed shall be determined by the Engineer.
- 42.4 The value of work executed shall comprise the value of the quantities of the items in the Bill of Quantities completed.
- 42.5 The value of work executed shall include the valuation of Variations and Compensation Events.
- 42.6 The Engineer may exclude any item certified in a previous or reduce the proportion of any item previously certified in any certificate in the light of later information.

43. Payments

- 43.1 Payments shall be adjusted for deductions for advance payments, retention, other recoveries in terms of the contract and taxes at source, as applicable under the law. The Employer shall pay the Contractor the amounts certified by the Engineer within 28 days of the date of each certificate. ~~If the Employer makes a late payment, the Contractor shall be paid interest on the late payment in the next payment. Interest shall be calculated from the date by which the payment should have been made upto the date when the late payment is made at 12% per annum.~~
- 43.2 If an amount certified is increased in a later certificate as a result of an award by the Adjudicator or an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.
- ~~43.3 Items of the Works for which no rate or price has been entered in will not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.~~

44. Compensation Events

- 44.1 The following are Compensation Events unless they are caused by the Contractor:
- (a) The Employer does not give access to a part of the Site by the Site Possession Date stated in the Contract Data.
 - (b) The Employer modifies the schedule of other contractors in a way which affects the work of the contractor under the contract.
 - (c) The Engineer orders a delay or does not issue drawings, specifications or instructions required for execution of works on time.

- (d) The Engineer instructs the Contractor to uncover or to carry out additional tests upon work which is then found to have no Defects.
- (e) The Engineer does not approve of a subcontract to be let, within 15 days.
- (f) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of Letter of Acceptance from the information issued to Bidders (including the Site Investigation Reports), from information available publicly and from a visual inspection of the site.
- (g) The Engineer gives an instruction for dealing with an unforeseen condition, caused by the Employer, or additional work required for safety or other reasons.
- (h) Other contractors, public authorities, utilities or the Employer does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor.
- (i) The advance payment is delayed, beyond 28 days after receipt of application and bank guarantee.
- (j) The effect on the Contractor of any of the Employer's Risks.
- (k) The Engineer unreasonably delays issuing a Certificate of Completion.
- (l) Other Compensation Events listed in the Contract Data or mentioned in the Contract.

44.2 If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date is extended. The Engineer shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.

44.3 As soon as information demonstrating the effect of each Compensation Event upon the Contractor's forecast cost has been provided by the Contractor, it is to be assessed by the Engineer and the Contract Price shall be adjusted accordingly. If the Contractor's forecast is deemed unreasonable, the Engineer shall adjust the Contract Price based on Engineer's own forecast. The Engineer will assume that the Contractor will react competently and promptly to the event.

44.4 The Contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor not having given early warning or not having cooperated with the Engineer.

45. Tax

45.1 The rates quoted by the Contractor shall be deemed to be inclusive of the sales and other taxes that the Contractor will have to pay for the performance of this Contract. The Employer will perform such duties in regard to the deduction of such taxes at source as per applicable law.

C = 0 DW = 0 D = 0 I = 0

46. Currencies

46.1 All payments shall be made in Indian Rupees.

47. Price Adjustment

47.1 Contract price shall be adjusted for increase or decrease in rates and price of labour, materials, fuels and lubricants in accordance with the following principles and procedures and as per formula given in the contract data:

- (a) The price adjustment shall apply for the work done from the start date given in the contract data upto end of the initial intended completion date or extensions granted by the Engineer and shall not apply to the work carried out beyond the stipulated time for reasons attributable to the contractor.
- (b) The price adjustment shall be determined during each month from the formula given in the contract data.
- (c) Following expressions and meanings are assigned to the work done during each month:

R= Total value of work done during the month. It would include the amount of secured advance granted, if any, during the month, less the amount of secured advance recovered, if any during the month. It will exclude value for works executed under variations for which price adjustment will be worked separately based on the terms mutually agreed.

47.2 To the extent that full compensation for any rise or fall in costs to the contractor is not covered by the provisions of this or other clauses in the contract, the unit rates and prices included in the contract shall be deemed to include amounts to cover the contingency of such other rise or fall in costs.

48. Retention

48.1 The Employer shall retain from each payment due to the Contractor the proportion stated in the Contract Data until Completion of the whole of the Works.

48.2 In Completion of the whole of the Works half the total amount retained is repaid to the Contractor and half when the Defects Liability Period has passed and the Engineer has certified that all Defects notified by the Engineer to the Contractor before the end of this period have been corrected.

48.3 On completion of the whole works, the contractor may substitute retention money with an "on demand" Bank guarantee.

49. Liquidated Damages

49.1. The Contractor shall pay liquidated damages to the Employer at the rate per day stated in the Contract Data for each day that the Completion Date is later than the Intended Completion Date (for the whole of the works or the milestone as stated in the contract data). The total amount of liquidated damages shall not exceed the amount defined in the Contract Data. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages does not affect the Contractor's liabilities.

49.2. If the Intended Completion Date is extended after liquidated damages have been paid, the Engineer shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the over payment calculated from the date of payment to the date of repayment at the rates specified in Sub Clause 43.1.

49.3. If the contractor fails to comply with the time for completion as stipulated in the tender, then the contractor shall pay to the employer the relevant sum stated in the Contract Data as Liquidated damages for such default and not as penalty for everyday or part of day which shall elapse between relevant time for completion and the date stated in the taking over certificate of the whole of the works on the relevant section, subject to the limit stated in the contract data.

The employer may, without prejudice to any other method of recovery deduct the amount of such damages from any monies due or to become due to the contractor. The payment or deduction of such damages shall not relieve the contractor from his obligation to complete the works on from any other of his obligations and liabilities under the contract.

49.4. If, before the Time for Completion of the whole of the Works or, if applicable, any Section, a Taking-Over Certificate has been issued for any part of the Works or of a Section, the liquidated damages for delay in completion of the remainder of the Works or of that Section shall, for any period of delay after the date stated in such Taking-Over Certificate, and in the absence of alternative provisions in the Contract, be reduced in the proportion which the value of the part so certified bears to the value of the whole of the Works or Section, as applicable. The provisions of this Sub-Clause shall only apply to the rate of liquidated damages and shall not affect the limit thereof.

50. Bonus

50.1. If the contractor achieves completion of the whole of the works prior to the Intended Completion Date prescribed in Contract Data the Employer shall pay to the contractor a sum stated in Contract Data as bonus for every completed month which shall elapse between the date of completion of all items of works as stipulated in the contract, including variations ordered by the Engineer and the time prescribed in Clause 17.

For the purpose of calculating bonus payments, the time given in the Bid for completion of the whole of the works is fixed and unless otherwise agreed, no adjustments of the time by reason of granting an extension of time pursuant to Clause 28 or any other clause of these conditions will be allowed. Any period falling short of a complete month shall be ignored for the purpose of computing the period relevant for the payment of bonus.

51. Advance Payment

51.1 The Employer shall make advance payment to the Contractor of the amount stated in the Contract Data by the date stated in the Contract Data, against provision by the Contractor of an Unconditional Bank Guarantee in a form and by a bank acceptable to the Employer in amounts and currencies equal to the advance payment. The guarantee shall remain effective until the advance payment has been repaid, but the amount of the guarantee shall be progressively reduced by the amounts repaid by the Contractor. Interest will not be charged on the advance payment.

- 51.2 The Contractor is to use the advance payment only to pay for Equipment, Plant and Mobilization expenses required specifically for execution of the Works. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Engineer.
- 51.3 The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation Events, or Liquidated Damages.
- 51.4 **Secured Advance**
The Engineer shall make advance payment in respect of materials intended for but not yet incorporated in the Works in accordance with conditions stipulated in the Contract Data.
- 52. Securities**
- 52.1 The Performance Security (including additional security for unbalanced bids) shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount and form and by a bank or surety acceptable to the Employer, and denominated in Indian Rupees. The Performance Security shall be valid until a date 28 days from the date of expiry of Defects Liability Period and the additional security for unbalanced bids shall be valid until a date 28 days from the date of issue of the certificate of completion.
- 53. Deleted**
- 54. Cost of Repairs**
- 54.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

E. FINISHING THE CONTRACT

- 55. Completion**
- 55.1 The Contractor shall request the Engineer to issue a Certificate of Completion of the Works and the Engineer will do so upon deciding that the Work is completed.
- 56. Taking over**
- 56.1 The Employer shall take over the Site and the Works within seven days of the Engineer issuing a certificate of Completion.
- 57. Final Account**
- 57.1 The Contractor shall supply to the Engineer a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Engineer shall issue a Defect Liability Certificate and certify any final payment that is due to the Contractor within 56 days of receiving the Contractor's account if it is correct and complete. If it is not, the Engineer shall issue within 56 days a schedule that states the

scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Engineer shall decide on the amount payable to the Contractor and issue a payment certificate, within 56 days of receiving the Contractor's revised account.

58.

Operating and Maintenance Manuals

58.1

If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the Contract Data.

In case of construction of suspension bridge; the contractor shall also submit the erection manual for the erection of the cable and stiffening girders supported by load calculation and design of ancillary components and structures to be used in the erection of the same within the period specified in the contract data for approval of the department. No part of superstructure shall be allowed to be erected without prior approval of the erection manual.

58.2

If the Contractor does not supply the Drawing and/or manuals by the dates stated in the Contract Data, or they do not receive the Engineer's approval, the Engineer shall withhold the amount stated in the Contract Data from payments due to the Contractor.

59.

Termination

59.1

The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.

59.2

Fundamental breaches of Contract include, but shall not be limited to the following:

- (a) the Contractor stops work for 28 days when no stoppage of work is shown on the current Programme and the stoppage has not been authorized by the Engineer;
- (b) the Engineer instructs the Contractor to delay the progress of the Works and the instruction is not withdrawn within 28 days.
- (c) The Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
- (d) A payment certified by the Engineer is not paid by the Employer to the Contractor within 56 days of the date of the Engineer's certificate.
- (e) The Engineer gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Engineer.
- (f) The Contractor does not maintain a security which is required.
- (g) The Contractor has delayed the completion of works by the number of days for which the maximum amount of liquidated damages can be paid as defined in the Contract data; and
- (h) if the Contractor, in the judgement of the Employer has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

For the purpose of this paragraph; "corrupt practice" means the offering, giving, receiving or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution. "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition."

- 59.3 When either party to the Contractor gives notice of a breach of contract to the Engineer for a cause other than those listed under Sub Clause 59.2 above, the Engineer shall decide whether the breach is fundamental or not.
- 59.4 Notwithstanding the above, the Employer may terminate the Contract for convenience.
- 59.5 If the Contract is terminated the Contractor shall stop work immediately, make the Site safe and secure and leave the Site as soon as reasonably possible.

60. Payment upon Termination

60.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer shall issue a certificate for the value of the work done less advance payments received upto the date of the issue of the certificate, less other recoveries due in terms of the contract, less taxes due to be deducted at source as per applicable law and less the percentage to apply to the work not completed as indicated in the Contract Data. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor the difference shall be a debt payable to the Employer.

60.2 If the Contract is terminated at the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Engineer shall issue a certificate for the value of the work done, the cost of balance material brought by the contractor and available at site, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works and the Contractor's costs of protecting and securing the Works and less advance payments received upto the date of the certificate, less other recoveries due in terms of the contract and less taxes due to be deducted at source as per applicable law.

61. Property

61.1 All materials on the Site, Plant, Equipment, Temporary Works and Works are deemed to be the property of the Employer, if the Contract is terminated because of a Contractor's default.

62. Release from Performance

62.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Employer or the Contractor the Engineer shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which commitment was made.

F. SPECIAL CONDITIONS OF CONTRACT

1. LABOUR:

The Contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labour, local or other and for their payment, housing, feeding and transport.

The Contractor shall, if required by the Engineer, deliver to the Engineer a return in detail, in such form and at such intervals as the Engineer may prescribe, showing the staff and the number of the several classes of labour from time to time employed by the Contractor on the Site and such other information as the Engineer may require.

2. COMPLIANCE WITH LABOUR REGULATIONS:

During continuance of the contract, the Contractor and his sub-contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. Salient features of some of the major labour laws that are applicable to construction industry are given below. The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/bye laws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, the Engineer/Employer shall have the right to deduct any money due to the Contractor including his amount of performance security. The Employer/Engineer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer.

The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the Employer at any point of time.

SALIENT FEATURES OF SOME MAJOR LABOUR LAWS APPLICABLE TO ESTABLISHMENTS ENGAGED IN BUILDING AND OTHER CONSTRUCTION WORK.

- a) **Workmen Compensation Act 1923:** The Act provides for compensation in case of injury by accident arising out of and during the course of employment.
- b) **Payment of Gratuity Act 1972:** Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years service or more on death, the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 10 or more employees.
- c) **Employees P.F. and Miscellaneous Provision Act 1952:** The Act Provides for monthly contributions by the employer plus workers @10% or 8.33%. The benefits payable under the Act are:
 - (i) Pension or family pension on retirement or death, as the case may be.
 - (ii) Deposit linked insurance on the death in harness of the worker.
 - (iii) Payment of P.F. accumulation on retirement/death etc.
- d) **Maternity Benefit Act 1951-** The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.
- e) **Contract Labour (Regulation & Abolition) Act 1970:** The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided, by the Principal Employer by Law. The Principal Employer is required to take Certificate of Registration and the Contractor is required to take licence from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Employer, if they employ 20 or more contract labour.
- f) **Minimum Wages Act 1948:** The Employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act, if the employment is a scheduled employment. Construction of Buildings, Roads and Runways are scheduled employments.
- g) **Payment of Wages Act 1936:** It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.
- h) **Equal Remuneration Act 1979:** The Act provides for payment of equal wages for work of equal nature to Male and Female workers and for not making discrimination against Female employees in the matters of transfers, training and promotions etc.

- i) **Payment of Bonus Act 1965:** The Act is applicable to all establishments employing 20 or more employees. The Act provides for payments of annual bonus subject to a minimum of 8.33% of wages and maximum of 20% of wages to employees drawing Rs.3500/- per month or less. The bonus to be paid to employees getting Rs.2500/- per month or above upto Rs.3500/- per month shall be worked out by taking wages as Rs.2500/- per month only. The Act does not apply to certain establishments. The newly set up establishments are exempted for five years in certain circumstances. Some of the State Governments have reduced the employment size from 20 to 10 for the purpose of applicability of this Act.
- j) **Industrial Disputes Act 1947:** The Act lays down the machinery and procedure for resolution of Industrial disputes, in what situations a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.
- k) **Industrial Employment (Standing Orders) Act 1946:** It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the State and Central Government to 50). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and get the same certified by the designated Authority.
- l) **Trade Union Act 1926:** The Act lays down the procedure for registration of trade unions of workmen and employers. The Trade Unions registered under the Act have been given certain immunities from civil and criminal liabilities.
- m) **Child Labour (Prohibition & Regulation) Act 1986:** The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of Child Labour is prohibited in Building and Construction Industry.
- n) **Inter-State Migrant workmen's (Regulation of Employment & Conditions of Service) Act 1979:** The Act is applicable to an establishment which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, travelling expenses from home upto the establishment and back, etc.

- o) **The Building and Other Construction workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996:** All the establishments who carry on any building or other construction work and employs 10 or more workers are covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be modified by the Government. The Employer of the establishment is required to provide safety measures at the Building or construction work and other welfare measures, such as Canteens, First Aid facilities, Ambulance, Housing accommodations for workers near the work place etc. The Employer to whom the Act has to obtain a registration certificate from the Registering Officer appointed by the Government.
- p) **Factories Act 1948:** The Act lays down the procedure for approval of plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing 10 persons or more with aid of power or 20 or more persons without the aid of power engaged in manufacturing process.

3. **ARBITRATION (GCC clause 25.3)**

The procedure for arbitration will be as follows:-

- 25.3 (a) In case of Dispute or difference arising between the Employer and a domestic contractor relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act, 1996. The parties shall make efforts to agree on a sole arbitrator and only if such an attempt does not succeed and the Arbitral Tribunal consisting of 3 arbitrators one each to be appointed by the Employer and the Contractor and the third Arbitrator to be chosen by the two Arbitrators so appointed by the Parties to act as Presiding Arbitrator shall be considered. In case of failure of the two arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the appointment of the arbitrator appointed subsequently, the Presiding Arbitrator shall be appointed by the *Council, Indian Roads Congress.
- (b) The Arbitral Tribunal shall consist of three Arbitrators one each to be appointed by the Employer and the Contractor. The third arbitrator shall be chosen by the two Arbitrators so appointed by the Parties, and shall act a presiding arbitrator. In case of failure of the two arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the appointment of the arbitrator appointed subsequently, the Presiding Arbitrator shall be appointed by the *Council, Indian Roads Congress.

- (c) If one of the parties fails to appoint its arbitrator in pursuance of sub-clause (a) and (b) above within 30 days after receipt of the notice of the appointment of its arbitrator by the other party, then the *Council, Indian Roads Congress shall appoint the arbitrator. A certified copy of the order of the Council, Indian Roads Congress, making such an appointment shall be furnished to each of the parties.
- (d) Arbitration proceedings shall be held in India, and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English.
- (e) The decision of the majority of arbitrators shall be final and binding upon both parties. The cost and expenses of Arbitration proceedings will be paid as determined by the arbitral tribunal. However, the expenses incurred by each party in connection with the preparation, presentation etc. of its proceedings as also the fees and expenses paid to the arbitrator appointed by such party or on its behalf shall be borne by each party itself.
- (f) Performance under the contract shall continue during the arbitration proceedings and payments due to the contractor by the owners shall not be withheld, unless they are the subject matter of the arbitration proceedings.

C = 0

OW = 0

D = 0

I = 0



ADDITIONAL CONDITIONS

1. Engineer and Engineer's Representative

1.1 Engineer's Representative.

The Engineer's Representative shall be appointed by and be responsible to the Engineer and shall carry out such duties and exercise such authority in the respect of monitoring and quality control as may be delegated to him by the Engineer in the conditions of contract.

1.2 Engineer's Authority to Delegate

The Engineer may from time to time delegate to the Engineer's Representative any of the duties and authorities vested in the Engineer and he may at any time revoke such delegation. Any such delegation or revocation shall be in writing and shall not take effect until a copy thereof has been delivered to the Employer and the Contractor.

Any communication given by the Engineer's Representative to the Contractor in accordance with such delegation shall have the same effect as though it had been given by the Engineer. Provided that:

- (a) any failure of the Engineer's Representative to disapprove any work, materials or Plant shall not prejudice the authority of the Engineer to disapprove such work, materials or Plant to give instructions for the rectification thereof;
- (b) if the Contractor questions any communication of the Engineer's Representative he may refer the matter to the Engineer who shall confirm, reverse or vary the contents of such communication.

1.2 Appointment of Assistants

The Engineer or the Engineer's Representative may appoint any number of persons to assist the Engineer's Representative in the carrying out of his duties under sub-clause 1.1 of special condition. He shall notify to the Contractor the names, duties and scope of authority of such persons. Such assistants shall have no authority to issue any instructions to the Contractor save in so far as such instructions may be necessary to enable them to carry out their duties and to secure their acceptance of materials, Plant or workmanship as being in accordance with the Contract, and any instructions given by any of them for those purposes shall be deemed to have been given by the

2. Arrangement of Inner Line Permit

The work site fall within the Inner line area demarcation of Government of India and the Contractor residing outside the Inner line area shall have to obtain Inner line permit for entering the area/work site for himself as well as for the workers being brought from outside the Inner line demarcation from designated officers for issue of Inner line permit by Government of Arunachal Pradesh. For the same purpose the contractor may contact the Resident

Commissioner, Government of Arunachal Pradesh at New Delhi Arunachal Bhawan or the Deputy Resident Commissioner, Arunachal Bhawan Calcutta, Guwahati, Shillong or the Assistant Director Supply and Transport, Government of Arunachal Pradesh, Mohanbari. He shall have to pay the prescribed fees fixed by Government of A.P. payable for the issue of the Inner line permit by competent authority for which no extra claim shall be entertained.

3. Payment of Royalty and Monopoly fee for use of forest product

Contractor shall have to pay royalty & monopoly fees for collection of minerals & forest produce at the rate prescribed by the Departments of Mining, Forest, & Environment, Government of Arunachal Pradesh and all such charges shall be deemed to have been covered in the rate quoted by the contractor. No extra claim on account of such payment shall be entertained during the currency of the contract.

4. Payment of VAT

Arunachal Pradesh Value Added Tax Rules, 2005 shall be applicable for the import of materials and construction at the site of works.

6. Dispute outside the provisions of contract

The contractor shall be responsible to make settlement of local dispute if arising between the contractor or his workmen and the local people or any issue.

7. Payment of Cess for Building And Other Construction Workers.

Payment of cess @ 1% or as applicable shall be deducted from the contractors' bill. No extra claim on account of such deduction shall be entertained during the currency of the contract.

8. Design & Drawings.

The design notes/calculations and drawings will be submitted by the contractor within fifteen (15) days¹ of award of the work. The work will be started as soon as working drawings² are issued. The design notes /calculations and drawings submitted by the contractor will be got proof-checked by an I.I.T. or any other institute of repute for using them as working³ drawings. The institute that will conduct the proof-checking will be appointed by the department but the fee will be borne by the contractor from the overall charges for design and drawings and no extra payment will be made to the contractor on this count. The contractor will submit seven(7) copies of the proof-checked drawings⁴ to the department for formal issue.

9. Payments

Payments will be made on percentage rate on successful completion of **mile stones** as detailed below.

Sl.No	MILE STONE	PAYMENT
1.	Completion of substructure (Right Bank and Left Bank Abutments, Launching Space, etc) i/c design and drawings, proof-checking of the design and drawings and submission to the department.	: 10% of Contract Value.
2.	Completion of fabrication of components of super-structure including trial assembling and painting as per specifications at work shop.	: 35% of Contract Value.
3.	Completion of delivery of fabricated components of super structure at bridge site.	: 15% of Contract Value.
4.	Completion of erection of bridge (Super-structure) including all activities and works connected with erection such as assembling of fabricated parts, transportation in and around the site, fixing bearings, providing RCC approach slabs, painting, grouting etc as per specification and as directed by the Engineer in-charge.	: 30% of Contract Value.
5.	Load testing, defect(s) correction (if any) & commissioning	10% of Contract Value
		: 100%

SECTION 4
CONTRACT DATA

C=0 OW=0 D=0 I=0

1
A

CONTRACT DATA

**Clause Reference
with respect to section 3**

Items marked "N/A" do not apply in this Contract.

1. The Employer is [C1.1.1]
 Name: **Chief Engineer (EZ) on behalf of Governor of Arunachal Pradesh**
 Address: **Mowb II Itanagar - 791111**
 Name of authorized Representatives: **1. Superintending Engineer, Boleng PWD Circle. 2. [to be intimated later]**
2. The Engineer is ; **Executive Engineer Mariyang Division PWD**
 Name of authorized Representatives: **1. AE & JE-in charge of work. 2. (to be appointed later]**
3. The Dispute Review Expert appointed jointly by the Employer and Contractor is: [C1.1.1]
 *Name: **Mr. M.N. Bhaghawati**
 *Address: **GREEN Path, Near S.B. Dewrah College, Ulubari, Bara Service, Guwahati -701007 Ph: 2520350(R) 9864074980**
-
4. The Defects Liability Period is 365 days from the date of completion. [C1.1.1& 35]
5. The start Date shall be 21 (twenty one) days for the date of issue of the Notice to proceed with the work. [C1.1.1]
6. The Intended Completion Date for the whole of the Works is **21 (Twenty One)** months after start of work with the following milestones. [C1.1.1,17& 28]
- Milestone dates: [C1. 2.2 & 49.1]
- | Physical works to be completed | Period from the start date |
|--|--------------------------------------|
| Milestone 1 i.e. Completion of Design & Drawings, getting the Design & Drawings proof checked by an I.I.T. or any other institute of repute and submission to the department. | 1.0 (One) Month |
| Milestone 2 i.e. Completion of sub-structure and fabrication & trial assembling, etc of components of the super-structure at work shop | 9.50 (Nine and half) Months |
| Milestone 3 i.e. Completion of delivery of fabricated components of super structure at site of work. | 1.0 (One) Month |
| Milestone 4 i.e. Completion of erection of super structure and all related works & activities in all respect | 8.5 (Eight and a half) Months |
| Milestone 5 i.e. Load testing, defect(s) correction (if any) & commissioning. | 1 (One) Month |
7. The Site is located over Yamne at Reglat (Bysang) **in Upper Siang District of A.P.** [C1.1.1]
8. C/o Motorable Steel Arch bridge over river Yamne at Reglat (Bysang) Span 90.00mtr **in Upper Siang District of A.P** under NLCPR. [C1.1.1]
9. The works consists of Sub-structure & Super-Structure works. *and design.* [C1.1.1]
I₁ I₂

(A) Road Works

Site clearance; setting-out and layout; widening of existing carriageway and strengthening including camber corrections; construction of new road/parallel service road; bituminous pavements remodeling/construction of junctions, intersections, bus bays, lay byes; supplying and placing of drainage channels, flumes, guard posts and guard other related items; construction/extension of cross drainage works, bridges, approaches and other related stones; road markings, road signs and kilometer/hectometer stones; protective works for roads/bridges; all aspects of quality assurance of various components of the works; rectification of the defects in the completed works during the Defects Liability Period; submission of "As- built" drawings and any other related documents; and other item of work as may be required to be carried out for completing the works in accordance with the drawings and provisions of the contract to ensure safety.

(B) Bridge Works

Site clearance; setting out, provision of steel superstructure foundations, piers, abutments, **tower for suspension bridge and bearings**; prestressed/reinforced cement concrete superstructure; **Stiffening girder for suspension bridge**, wearing coat, hand railings, expansion joints, approach slabs, drainage spouts/downtake pipes, arrangements for fixing light posts, water mains, utilities etc; provision of suitably designed protective works; providing wing/return walls; provision of road markings, road signs etc.; all aspects of quality assurance; clearing the site and handing over the works on completion; rectification of the defects during the Defects Liability Period and submission of "As-built" drawings and other related documents; and other items of work as may be required to be carried out for completing the works in accordance with the drawings and the provisions of the contract and to Insure safety.

(C) Other Items

- | | |
|--|-------------|
| Any other items as required to fulfill all contractual obligations as per the Bid documents. | [C1.1.1] |
| 10 The following documents also form part of the Contract Document listed in Sl.No.1 to 9 of Clause-2.30 | [C1.2.3(9)] |
| 11 The law which applies to the Contract is the law of Union of India | [C1.3.1] |
| 12 The language of the Contract documents is English | [C1.3.1] |
| 13 Limit of subcontracting 50% of the Initial Contract Price | [C1.7.1] |
| 14 The Schedule of Other Contractors: Departmental workers and local contractors approved by Engineer | [C1.8] |
| 15 The Schedule of Key Personnel As per Annex.-II to Section-I | [C1.9] |

**Clause Reference
with respect to
section 3**

- 16 The minimum insurance cover for physical property, injury and death is Rs. 5 lakhs per occurrence with the number of occurrences limited to four. After each occurrence, contractor will pay additional premium necessary to make insurance valid for four occurrences always. [Cl.13]
- 17 Site investigation report ; **Report on subsoil and design approved by the department** [Cl.14]
- 18 The Site Possession Dates shall be **from 21st day after the date of acceptance** [Cl.21]
- 19 Fees and types of reimbursable expenses to be paid to the Dispute Review Expert
(To be inserted later) [Cl.25]
- 20 Appointing Authority for the Dispute Review Expert -Council, Indian Roads Congress, New Delhi. [Cl.26]
- 21 The period for submission of the programme for approval of Engineer shall be 21 days from the issue of Letter of Acceptance. [Cl.27.1]
- 22 ~~The period between programme updates shall be 90 days.~~ [Cl.27.3]
- 23 The amount to be with held for late submission of an updated programme shall be **Rs. 1.50 lakhs.** [Cl.27.3]
- 24 The following events shall also be Compensation Events: [Cl.44]
- Substantially adverse ground conditions encountered during the course of execution of work not provided for in the bidding document
- (i) Removal of underground utilities detected subsequently
 - (ii) Significant change in classification of soil requiring additional mobilisation by the contractor, e.g. ordinary soil to rock excavation,
 - (iii) Removal of unsuitable material like marsh, debris dumps, etc not caused by the contractor
 - (iv) Artesian conditions
 - (v) Seepage, erosion, landslide
 - (vi) River training requiring protection of permanent work
 - (vii) Presence of historical, archeological or religious structures, monuments interfering with the works
 - (viii) Restriction of access to ground imposed by civil, judicial, or military authority
- 25 The currency of the Contract is **Indian Rupees.** [Cl.46]

C = 0

OW = 0

D = 0

I = 0



**Clause Reference
with respect to
section 3**

- 26 The formula (e) for adjustment of prices are: [Cl.47]
R=Value of work as defined in Clause 47.1 of Conditions of Contract

Adjustment for labour component

- (i) Price adjustment for increase or decrease in the cost due to labour shall be paid in accordance with the following formula:

$$V_L = 0.85 \times P_1 / 100 \times R \times (L_i - L_o) / L_o$$

V_L = increase or decrease in the cost of work during the month under consideration due to changes in rates for local labour.

L_o = the consumer price index for industrial workers for the State on 28 days preceding the date of opening of Bids as published by Labour Bureau, Ministry of Labour, Government of India.

L_i = The consumer price index for industrial workers for the State for the under consideration as published by Labour Bureau, Ministry of Labour, Government of India.

P_1 = Percentage of labour component of the work.

Adjustment for cement component

- (ii) Price adjustment for increase or decrease in the cost of cement procured by the contractor shall be paid in accordance with the following formula:

$$V_c = 0.85 \times P_c / 100 \times R \times (C_1 - C_o) / C_o$$

V_c = increase or decrease in the cost of work during the month under consideration due to changes in rates for cement.

C_o = The all India wholesale price index for cement on 28 days preceding the date of opening of Bids as published by the Ministry of Industrial Development, Government of India, New Delhi.

C_j = The all India average wholesale price index for cement for the month under consideration as published by Ministry of Industrial Development, Government of India, New Delhi

P_c = Percentage of cement component of the work

Adjustment for steel component

- (iii) Price adjustment for increase or decrease in the cost of steel procured by the Contractor shall be paid in accordance with the following formula:

$$V_s = 0.85 \times P_s / 100 \times R \times (S_i - S_o) / S_o$$

V_s = Increase or decrease in the cost of work during the month under consideration due to changes in the rates for steel

S_o = The all India wholesale price index for steel (Bars and Rods) on 28 days preceding the date of opening of Bids as published by the Ministry of Industrial Development, Government of India, New Delhi

$C = 0$

$\partial W = 0$

$D = 0$

$I = 0$

S_i = The all India average wholesale price index for steel (Bars and Rods) for the month under consideration as published by Ministry of Industrial Development, New Delhi

P_s = Percentage of steel component of the work

Note.: For the application of this clause, index of Bars and Rods has been chosen to represent steel group.

Adjustment of bitumen component

- (iv) Price adjustment for increase or decrease in the cost of bitumen shall be paid in accordance with the following formula:

$$V_b = 0.85 \times P_b / 100 \times R \times (B_i - B_o) / B_o$$

V_b = Increase or decrease in the cost of work during the month under consideration due to changes in rates for bitumen.

B_o = The official retail price of bitumen at the IOC depot at nearest center on the day 28 days prior to date of opening of Bids.

B_i = The official retail price of bitumen of IOC depot at nearest center for the 15th day of the month under consideration.

P_b = Percentage of bitumen component of the work

Adjustment of POL (fuel and lubricant) component

- (v) Price adjustment for increase or decrease in cost of POL (fuel and lubricant) shall be paid in accordance with the following formula:

$$V_f = 0.85 \times P_f / 100 \times R \times (F_i - F_o) / F_o$$

V_f = Increase or decrease in the cost of work during the month under consideration due to changes in rates for fuel and lubricants.

F_o = The official retail price of High Speed Diesel (HSD) at the existing consumer pumps of IOC at nearest center on the day 28 days prior to the date of opening of Bids.

F_i = The official retail price of HSD at the existing consumer pumps of IOC at nearest center for the 15th day of month of the under consideration.

P_f = Percentage of fuel and lubricants component of the work.

Note: For the application of this clause, the price of High Speed Diesel oil has been chosen to represent fuel and lubricants group.

Adjustment for Plant and Machinery Spares Component

- (vi) Price adjustment for increase or decrease in the cost of plant and machinery spares procured by the Contractor shall be paid in accordance with the following formula:

$$V_p = 0.85 \times P_p / 100 \times R \times (P_i - P_o) / P_o$$

V_p = Increase or decrease in the cost of work during the month under consideration due to changes in rates for plant and machinery spares

P_o = The all India wholesale price index for heavy machinery and parts on 28 days preceding the date of opening of Bids as published by the Ministry of Industrial Development, Government of India, New Delhi.

P_i = The all India average wholesale price index for heavy machinery and parts for the month under consideration as published by Ministry of Industrial Development, Government of India New Delhi.

[Cl.49]

P_p = Percentage of plant and machinery spares component of the work.

Note.: For the application of this clause, index of Heavy Machinery and Parts has been chosen to represent the Plant and Machinery Spares group.

Adjustment of Other materials Component

- (vii) Price adjustment for increase or decrease in cost of local materials other than cement, steel, bitumen and POL procured by the contractor shall be paid in accordance with the following formula:

[Cl.49]

$$V_m = 0.85 \times P_m / 100 \times R \times (M_i - M_o) / M_o$$

V_m = Increase or decrease in the cost of work during the month under consideration due to changes in rates for local materials other than cement, steel, bitumen and POL.

M_o = The all India wholesale price index (all commodities) on 28 days preceding the date of opening of Bids, as published by the Ministry of Industrial Development, Government of India, New Delhi.

[Cl.50]

M_j = The all India wholesale price index (all commodities) for the month under consideration as published by Ministry of Industrial Development, Government of India, New Delhi.

[Cl.51&52]

P_m = Percentage of local material component (other than cement, steel, bitumen and POL) of the work.

**Clause Reference
with respect
to section 3**

The following percentages will govern the price adjustment for the entire contract:

1.	Labour - P _l	25 %	
2.	Cement - P _c	5 %	
3.	Steel - P _s	5 10 %	
4.	Bitumen - P _b	5 10 %	
5.	POL - P _f	5 %	
6.	Plant and Machinery Spares - P _p	5 %	
7.	Other Materials - P _m	45 %	
	Total	100 %	
27	The proportion of payments retained (retention money) shall be 6% from each bill subject to a maximum of 5% of final contract price.		[C1.48]
28	Amount of liquidated damages for delay in completion of works	<u>For Whole of work</u> (1/2000) th of the Initial Contract Price, rounded off to the nearest Thousand, per day. <u>For sectional completion (wherever specified, in item 6 of Contract Data)</u> (1/200) th of initial contract price for 5 km section, rounded off to the nearest thousand per day.	[C1.49]
29	Maximum limit of liquidated damages for delay in completion of work.	10 per cent of the Initial Contract Price rounded off to the nearest thousand.	[C1.49]
30	Amount of Bonus for early completion of whole of the works	1 per cent of the Initial Contract Price (part of a month to be excluded), rounded off to the nearest thousand, per month.	[C1.50]
31	Maximum limit of bonus for early completion of work	6 per cent of the Contract Price rounded off to the nearest thousand.	[C1.50]
32	The amounts of the advance payment are:		[C1.51 & 52]

Nature of Advance		Amount (Rs.) Conditions to be fulfilled
i.	Mobilization 10% of the Contract price	On submission of unconditional Bank Guarantee. (to be drawn before the end of 20% of Contract period). The contractor may furnish four bank guarantees of 2.5% each, valid for full period.

*C-2 (4M)
0-ML
1-ML*

- | | | | |
|-------|--|--|--|
| ii. | Equipment | 90% for new and 50% of depreciated value for old equipment. Total amount will be subject to a maximum of 5% of the Contract price. | After equipment is brought to site (provided the Engineer is satisfied that the equipment is required for performance of the contract) and on submission of unconditional Bank Guarantee for amount of advance. |
| iii). | Secured advance for non-perishable materials brought to site | 75% of Invoice value. | <p>a) The materials are in accordance with the specification for Works;</p> <p>b) Such materials have been delivered to site, and are properly stored and protected against damage or deterioration to the satisfaction of the Engineer. The contractor shall store the bulk material in measurable stacks.;</p> |

- c) The Contractor's records of the requirements, orders, receipt and use of materials are kept in a form approved by the Engineer and such records shall be available for inspection by the Engineer;
- d) The contractor has submitted with his monthly statement the estimated value of the materials on site together with such documents as may be required by the Engineer for the purpose of valuation of the materials and providing evidence of ownership and payment thereof;
- e) Ownership of such materials shall be deemed to vest in the Employer for which the Contractor has submitted an Indemnity Bond in an acceptable format; and
- f) The quantities of materials are not excessive and shall be used within a reasonable time as determined by the Engineer.

(The advance payment will be paid to the Contractor no later than 28 days after fulfillment of the above conditions).

33. Repayment of advance payment for mobilization and equipment: [Cl.51.3]

The advance loan shall be repaid with percentage deductions from the interim payments certified by the Engineer under the Contract. Deductions shall commence in the next Interim Payment Certificate following that in which the total of all such payments to the Contractor has reached not less than 20 per cent of the Contract Price or 6 (Six) months from the date of payment of first installment of advance, whichever period concludes earlier, and shall be made at the rate of 20 per cent of the amounts of all Interim Payment Certificates until such time as the loan has been repaid, always

provided that the loan shall be completely repaid prior to the expiry of the original time for completion pursuant to Clauses 17 and 28.

34. Repayment of secured advance: [Cl.51.4]

The advance shall be repaid from each succeeding monthly payments to the extent materials [for which advance was previously paid pursuant to Clause 51.4 of G.C.C.] have been incorporated into the Works.

35. The Securities shall be for the following minimum amounts equivalent as a percentage of the Contract Price: [Cl.52]

Performance Security for 5 per cent of contract price plus
Rs..... **(to be decided after evaluation of the bid)** as
additional security in terms of ITB Clause 29.5.

The standard form of 'Performance Security acceptable to the Employer shall be an unconditional Bank Guarantee of the type as presented in Section 8 of the Bidding Documents.

36. The Schedule of Operating and Maintenance Manuals after **10th months of date of acceptance** [Cl.58]

37. The date by which "as-built" drawings (in scale as directed) in 2 sets are required is within 28 days of issue of certificate of completion of whole or section of the work, as the case may be. [Cl.58]


38. The amount to be withheld for failing to supply "as built" drawings by the date required is **Rs. 0.5** Lakhs. [Cl.58]

39. The following events shall also be fundamental breach of contract: [Cl.59.2]
"The Contractor has contravened Sub-clause 7.1 and Clause 9 of GCC."

40. The percentage to apply to the value of the work not completed representing the Employer's additional cost for completing the Works shall be **20** per cent. [3,Cl.60]

SECTION 5
TECHNICAL SPECIFICATIONS

C = 0 B = 0 D = 0 E = 0



Technical Specification

Introduction

1. The work shall be in general carried out as per the relevant provision in Ministry of Road Transport and Highways Specification for Road and Bridge Works. The items not covered in the above specification shall be carried out as per the relevant latest BIS specification. Further if the items are not covered by the relevant BIS specification; the same shall be executed as per the specification available in other foreign countries or as per the literature published in referred International Journals.
2. The bidders are expected to be well versed with the relevant specifications of the item of works involved in the tender, the following books of specification:
 - I. Specification for Road and Bridge Works; published by IRC for MORTH ⁵ ₁
 - II. CPWD specifications
 - III. BIS specifications
 - IV. IRC Specifications

Blank

$C=0$

$OW=0$

$D=0$

$I=0$



**SECTION 6
FORM OF BID**

C=0 OW=0 D=0 J=0

Blank

C = 0 OW = 0 D = 0 I = 0



FORM OF BID

Description of the Works:

BID :

To :

Address :

1. We offer to execute the Works described above and remedy any defects therein in conformity with the conditions of Contract, specification, drawings, Bill of Quantities and Addenda for the sum(s) of

(_____)

2. We undertake, if our Bid is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Engineer's notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the document.
3. We agree to abide by this Bid for the period of * _____ days from the date fixed for receiving the same, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
4. Unless and until a formal Agreement is prepared and executed this Bid, together with your written acceptance thereof, shall constitute a binding contract between us.
5. We understand that you are not bound to accept the lowest or any tender you may receive.

6. We accept the appointment of Shri _____ as the Dispute Review Expert.

(OR)

We do not accept the appointment of Shri _____ as the Dispute Review Expert and propose instead that Shri _____ be appointed as

Dispute Review Expert, whose BIO-DATA is attached.

Dated this _____ day of _____ 20

Signature _____ in the capacity of _____ duly authorized to sign bids for and on behalf of _____

(in block capitals or typed)

Address

Witness

Address

Occupation

C=0

OW=0

D=0

I=0

SECTION 7

BILL OF QUANTITIES

C=0 OW=0 P=0 T=0

Blank

C = 0 OW = 0 D = 0 I = 0



SECTION 7

BILL OF QUANTITIES

C = 0 PW = 0 D = 0 I = 0

Blank

$C = 0$

$OW = 0$

$D = 0$


$I = 0$



BILL OF QUANTITIES**Preamble**

1. The Bill of Quantities shall be read in conjunction with the Instructions to Bidders, Conditions of Contract, Technical Specifications and Drawings.
2. The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Engineer and valued at the rates and prices tendered in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Engineer may fix within the terms of the Contract.
3. The rates and prices tendered in the priced Bill of Quantities shall, except in so far as it is otherwise provided under the Contract, include all constructional plant, labour, supervision, materials, erection, maintenance, insurance, profit, taxes and duties, together with all general risks, liabilities and obligations set out or implied in the Contract.
4. The rates and prices shall be quoted entirely in Indian Currency.
5. A rate or price shall be entered against each item in the Bill of Quantities, whether quantities are stated or not. The cost of Items against which the Contractor has failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.
6. The whole cost of complying with the provisions of the Contract shall be included in the items provided in the priced Bill of Quantities, and where no Items are provided the cost shall be deemed to be distributed among the rates and prices entered for the related Items of Work.
7. General directions and descriptions of work and materials are not necessarily repeated or summarized in the Bill of Quantities. References to the relevant sections of the contract documentation shall be made before entering rates or prices against each item in the Bill of Quantities.
8. The method of measurement of completed work for payment shall be in accordance with the specification for Road and Bridge Works published by the Ministry of Surface Transport (edition).
9. Errors will be corrected by the Employer for any arithmetic errors pursuant to Clause 29 of the Instructions to Bidders.
10. Rock is defined as all materials which, in the opinion of the Engineer, require blasting, or the use of metal wedges and sledgehammers, or the use of compressed air drilling for its removal, and which cannot be extracted by ripping with a tractor of at least 150 kw with a single rear mounted heavy duty ripper.

Blank

C=0 OW=0 D=0 I=0 

1948 - 1950 - 1952 - 1954 - 1956 - 1958 - 1960 - 1962 - 1964 - 1966 - 1968 - 1970 - 1972 - 1974 - 1976 - 1978 - 1980 - 1982 - 1984 - 1986 - 1988 - 1990 - 1992 - 1994 - 1996 - 1998 - 2000 - 2002 - 2004 - 2006 - 2008 - 2010 - 2012 - 2014 - 2016 - 2018 - 2020

Year	Entered rate (in Rs.)		Entered in date
	1950	1952	
1950	1	2	1950
1952	3	4	1952
1954	5	6	1954
1956	7	8	1956
1958	9	10	1958
1960	11	12	1960
1962	13	14	1962
1964	15	16	1964
1966	17	18	1966
1968	19	20	1968
1970	21	22	1970
1972	23	24	1972
1974	25	26	1974
1976	27	28	1976
1978	29	30	1978
1980	31	32	1980
1982	33	34	1982
1984	35	36	1984
1986	37	38	1986
1988	39	40	1988
1990	41	42	1990
1992	43	44	1992
1994	45	46	1994
1996	47	48	1996
1998	49	50	1998
2000	51	52	2000
2002	53	54	2002
2004	55	56	2004
2006	57	58	2006
2008	59	60	2008
2010	61	62	2010
2012	63	64	2012
2014	65	66	2014
2016	67	68	2016
2018	69	70	2018
2020	71	72	2020

The following table shows the number of persons who have been registered in the various districts of the State from 1950 to 1980. The figures are given in thousands of persons. The total number of persons registered in the State is also given for each year. The figures are rounded to the nearest thousand.

1950 - 1980

The following table shows the number of persons who have been registered in the various districts of the State from 1950 to 1980. The figures are given in thousands of persons. The total number of persons registered in the State is also given for each year. The figures are rounded to the nearest thousand.

$C = 0$ $OW = 0$ $D = 0$ $I = 01$

BILL OF QUANTITY FOR
C/O Motorable Steel Arch Bridge over river Yamna at Rajal under Karyang at District Sujan 20.12.1941

13

Item	Name items and unit of work	Quantity	Estimated rate (in Rs.)		Actual price	
			Rs.	Paise	Rs.	Paise
1	STEEL SHEET PILE					

Design supply and fabrication of steel arch bridge over river Yamna at Rajal under Karyang at District Sujan 20.12.1941. The bridge is of steel arch type with two spans of 100 ft. each. The bridge is to be built on a soft soil and the foundations are to be of concrete. The bridge is to be built on a soft soil and the foundations are to be of concrete. The bridge is to be built on a soft soil and the foundations are to be of concrete.

The bridge is to be built on a soft soil and the foundations are to be of concrete. The bridge is to be built on a soft soil and the foundations are to be of concrete. The bridge is to be built on a soft soil and the foundations are to be of concrete. The bridge is to be built on a soft soil and the foundations are to be of concrete. The bridge is to be built on a soft soil and the foundations are to be of concrete.

SECTION 8

SECURITIES AND OTHER FORMS

Blank

C=0 OW=0 D=0 I=0

↓

BID SECURITY (BANK GUARANTEE)

WHEREAS, _____ [name of Bidder] (hereinafter called "the Bidder") has submitted his Bid dated _____ [date] for the construction of _____ [name of Contract hereinafter called "the Bid"].

KNOW ALL PEOPLE by these presents that We _____ [name of Bank] of _____ [name of country] having our registered office at _____ (hereinafter called "the Bank") are bound unto _____ [name of Employer] (hereinafter called "the Employer") in the sum of _____ *for which payment well and truly to be made to the said Employer the Bank itself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this _____ day of _____, 20 ____.

THE CONDITIONS of this obligation are :

(1) If after Bid opening the Bidder withdraws his bid during the period of Bid validity specified in the Form of Bid;

OR

(2) If the Bidder having been notified to the acceptance of his bid by the Employer during the period of Bid validity:

- (a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to Bidders, if required; or
- (b) fails or refuses to furnish the Performance Security, in accordance with the Instructions to Bidders; or
- (c) does not accept the correction of the Bid Price pursuant to Clause 27.

We undertake to pay to the Employer up to the above amount upon receipt of his first written demand, without the Employer having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him is due to him owing to the occurrence of one or any of the three conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date _____** days after the deadline for submission of Bids as such deadline is stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this guarantee should reach the Bank not later than the above date.

DATE _____

SIGNATURE _____

WITNESS _____

SEAL _____

(Signature, name and address)

* The Bidder should insert the amount of the guarantee in words and figures denominated in Indian Rupees. This figure should be the same as shown in Clause 16.1 of the Instructions to Bidders.

** 45 days after the end of the validity period of the Bid Date should be inserted by the Employer before the Bidding documents are issued.

PERFORMANCE BANK GUARANTEE

To

_____ (name of Employer)

_____ (address of Employer)

WHEREAS _____ [name and address of Contractor] (hereafter called "the Contractor") has undertaken, in pursuance of Contract No. _____ dated _____ to execute _____ [name of Contract and brief description of Works] (hereafter called "the Contract").

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligation in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee:

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you on behalf of the Contractor, up to a total of _____ [amount of guarantee]* _____ (in words), such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of _____ [amount of guarantee] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract of the Works to be performed thereunder or of any of the Contract documents which may be made between your and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until 28 days from the date of expiry of the Defect Liability Period.

Signature and Seal of the guarantor _____

Name of Bank _____

Address _____

Date _____

* An amount shall be inserted by the Guarantor, representing the percentage the Contract Price specified in the Contract including additional security for unbalanced Bids, if any and denominated in Indian Rupees.

Blank

C 20

OW 20

D 20

J 200

1

BANK GUARANTEE FOR ADVANCE PAYMENT

To

_____ [name of Employer]
_____ [address of Employer]
_____ [name of Contractor]

Gentlemen:

In accordance with the provisions of the Conditions of Contract, sub-clause 51.1 ("Advance Payment") of the above-mentioned Contract, _____ [name and address of Contractor] (hereinafter called "the Contractor") shall deposit with [name of Employer] a bank guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of _____ [amount of Guarantee] * _____ [in words].

We, the _____ [bank of financial institution], as instructed by the Contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to _____ [name of Employer] on his first demand without whatsoever right of obligation on our part and without his first claim to the Contractor, in the amount not exceeding _____ [amount of guarantee]* _____ [in words].

We further agree that no change or addition to or other modification of the terms of the Contractor or Works to be performed thereunder or of any of the Contract documents which may be made between _____ [name of Employer] and the Contractor, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until _____ [name of Employer] receives full repayment of the same amount from the Contractor.

Yours truly,

Signature and Seal: _____

Name of Bank/Financial Institution : _____

Address: _____

Date : _____

* An amount shall be inserted by the Bank or Financial Institution representing the amount of the Advance Payment, and denominated in Indian Rupees.

Blank

C=0 OW=0 D=0 I=0



**INDENTURE FOR SECURED ADVANCES
FORM 31**

(for use in cases in which the contract is for finished work and the contractor has entered into an agreement for the execution of a certain specified quantity of work in a given time)

This indenture made the _____ day of _____ 20_____
BETWEEN _____ (hereinafter called the contractor which expression shall where
the context so admits or implies be deemed to include his executors, administrators and assigns)
or the one part and the Employer of the other part.

Whereas by an agreement dated _____ (hereinafter called the said
agreement) the contractor has agreed.

AND WHEREAS the contractor has applied to the Employer that he may be allowed advanced on
the security of materials absolutely belonging to him and brought by him to the site of the works
the subject of the said agreement for use in the construction of such of the works as he has
undertaken to executive at rate fixed for the finished work (inclusive of the cost of materials and
labour and other charges).

AND WHEREAS the Employer has agreed to advance to the Contractor the sum of Rupees
_____ on the security of materials the quantities and other particulars of
which are detailed in Accounts of Secured Advances attached to the Running Account bill for the
said works signed by the Contractor on _____ and the Employer has reserved to himself
the option of making any further advance or advances on the security of other materials brought
by the Contractor to the site of the said works.

Now THIS INDENTURE WITNESSETH that in pursuance of the said agreement and in
consideration of the sum of Rupees _____ on or before the execution of these
presents paid to the Contractor by the Employer (the receipt where of the Contractor doth hereby
acknowledge) and of such further advances (if any) as may be made to him as aforesaid the
Contractor doth hereby covenant and agree with the President and declare as follows:

- (1) That the said sum of Rupees _____ - so advanced by the Employer to
the Contractor as aforesaid and all or any further sum of sums advanced as aforesaid shall
be employed by the Contractor in or towards expending the execution of the said works and
for no other purpose whatsoever.
- (2) That the materials details in the said Account of Secured Advances which have
been offered to and accepted by the Employer as security are absolutely the
Contractor's own propriety and free from encumbrances of any kind and the con-
tractor will not make any application for or receive a further advance on the
security of materials which are not absolutely his own property and free from
encumbrances of any kind and the Contractor indemnified the Employer against all
claims to any materials in respect of which an advance has be made to him as
aforesaid.
- (3) That the materials detailed in the said account of Secured Advances and all other
materials on the security of which any further advance or advances may hereafter
be made as aforesaid (hereafter called the said materials) shall be used by the
Contractor solely in the execution of the said works in accordance with the
directions of the Engineer.
- (4) That the Contractor shall make at his own cost. All necessary and adequate
arrangements for the proper watch, safe custody and protection against all risks of
the said materials and that until used in construction as aforesaid the said
materials shall remain at the site of the said works in the Contractor's custody and
on his own responsibility and shall at all times be open to inspection by the
Engineer or any officer authorized by him. In the event of the said materials or any
part thereof being stolen, destroyed or damaged or becoming deteriorated in a

forthwith replace the same with other materials of like quality or repair and make good the same required by the Engineer.

- (5) That the said materials shall not be any account be removed from the site of the said works except with the written permission of the Engineer or an officer authorized by him on that behalf.
- (6) That the advances shall be repayable in full when or before the Contractor receives payment from the Employer of the price payable to him for the said works under the terms and provisions of the said agreement. Provided that if any intermediate payments are made to the Contractor on account of work done than on the occasion of each such payment the Employer will be at liberty to make a recovery from the Contractor's bill for such payment by deducting there from the value of the said materials than actually used in the construction and in respect of which recovery has not been made previously, the value for this purpose being determined in respect of each description of materials at the rates at which the amounts of the advances made under these presents were calculated.
- (7) That if the Contractor shall at any time make any default in the performance or observance in any respect of any of the terms and provisions of the said agreement or of these presents the total amount of the advance or advances that may still be owing of the Employer shall immediately on the happening of such default be repayable by the Contractor to be the Employer together with interest thereon at twelve per cent per annum from the date or respective dates of such advance or advances to the date of repayment and with all costs, charges, damages and expenses incurred by the **Employer** in or for the recovery thereof or the enforcement of this security or otherwise by reason of the default of the Contractor and the Contractor hereby covenants and agrees with the **Employer** to reply and pay the same respectively to him accordingly.
- (8) That the Contractor hereby charges all the said materials with the repayment to the Employer of the said sum of Rupees _____ and any further sum of sums advanced as aforesaid and all costs, charges, damages and expenses payable under these presents PROVIDED ALWAYS and it is hereby agreed and declared that notwithstanding anything in the said agreement and without prejudice to the power contained therein if and whenever the covenant for payment and repayment herein-before contained shall become enforceable and the money owing shall not be paid in accordance there with the **Employer** may at any time thereafter adopt all or any of the following courses as he may deem best:
- (a) Seize and utilise the said materials or any part thereof in the completion of the said works on behalf of the contractor in accordance with the provisions in that behalf contained in the said agreement debiting the contractor with the actual cost of effecting such completion and the amount due to the contractor with the value of work done as if he had carried it out in accordance with the said agreement and at the rates thereby provided. If the balance is against the contractor, he is to pay same to the **Employer** on demand.
 - (b) Remove and sell by public auction the seized materials or any part thereof and out of the moneys arising from the sale retain all the sums aforesaid repayable or payable to the **Employer** under these presents and pay over the surplus (if any) to the Contractor.
 - (c) Deduct all or any part of the moneys owing out of the security deposit or any sum due to the Contractor under the said agreement.

- (9) That except in the event of such default on the part of the contractor as aforesaid interest on the said advance shall not be payable.
- (10) That in the event of any conflict between the provisions of these presents and the said agreement the provisions of these presents shall prevail and in the event of any dispute or difference arising over the construction or effect of these presents the settlement of which has not been here-in-before expressly provided for the same shall be referred to the Employer whose decision shall be final and the provision of the Indian Arbitration Act for the time being in force shall apply to any such reference.

Blank

$$C=0$$

$$OW=0$$

$$D=0$$

$$I=0$$



Letter of Acceptance
(Letterhead paper of the Employer)

(Date) _____

To

_____ (Name and address of the Contractor)

Dear Sirs,

This is to notify you that your Bid dated _____ for execution of the _____ (name of the contract and identification number, as given in the Instructions to Bidders) for the Contract Price of Rupees _____ (_____) (amount in words and figures), as corrected and Modified in accordance with the Instructions to Bidders¹ is hereby accepted by our agency.

We accept/do not accept that _____ be appointed as the Adjudicator². You are hereby requested to furnish Performance Security, in the form detailed in Para 34.1 of **ITB** for an amount equivalent to Rs _____ within 21 days of the receipt of this letter of acceptance valid up to 28 days from the date of expiry of defects Liability Period i.e. up to _____ and sign the contract, failing which action as stated in Para 34.3 of **ITB** will be taken.

Yours faithfully,

Authorized Signature
 Name and title of Signatory
 Name of Agency

¹Delete "corrected and" or "and modified" if only one of these actions applies. Delete as corrected and modified in accordance with the Instructions to Bidders, if corrections or modifications have not been affected.

²To be used only if the Contractor disagrees in his Bid with the Adjudicator proposed by the Employer in the "Instructions to Bidders".

C=0

OW=0

D=0

J=0

Blank

$C=0$ $QW=0$ $D=0$ $T=0$

↓
E

Issue of Notice to proceed with the work
(Letterhead of the Employer)

_____ (Date)

To

_____ (Name and address of the Contractor)

Dear Sirs,

Pursuant to your furnishing the requisite security as stipulated in ITB Clause 34.1 and signing of the Contract for the construction of _____

at a Bid Price of Rs. _____.

You are hereby instructed to proceed with the execution of the said works in accordance with the contract documents.

Yours faithfully,

(Signature, name and title of signatory
authorized to sign on behalf of Employer)

C = 0

OW = 0

D = 0

J = 0

Blank

$C=0$ $O_w=0$ $D=0$ $I=0$

Agreement Form

Agreement

This agreement, made the _____ day of _____ between _____ (name and address of Employer) [hereinafter called "the Employer] and _____ (name and address of contractor) hereinafter called "the Contractor" of the other part.

Whereas the Employer is desirous that the Contractor execute

_____ (name and identification number of Contract) (hereinafter called "the Works") and the Employer has accepted the Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein, at a cost of Rs. _____

NOW THIS AGREEMENT WITNESSETH as follows:

1. In this Agreement, words and expression shall have the same meanings as are respectively assigned to them in the conditions of contract hereinafter referred to and they shall be deemed to form and be read and constructed as part of this Agreement.
2. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all aspects with the provisions of the contract.
3. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying the defects wherein Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.
4. The following documents shall be deemed to form and be ready and constructed as part of this Agreement viz.
 - (i) Letter of Acceptance
 - (ii) Notice to proceed with the works;
 - (iii) Contractor's Bid
 - (iv) Condition of Contract: General and Special
 - (v) Contract Data
 - (vi) Additional condition
 - (vii) Drawings
 - (viii) Bill of Quantities and
 - (ix) Any other documents listed in the Contract Data as forming part of the Contract.

In witnessed whereof the parties there to have caused this Agreement to be executed the day and year first before written.

The Common Seal of _____ was
hereunto affixed in the presence of :

Signed, Sealed and Delivered by the said _____

In presence of :

Binding Signature of Employer _____

Binding Signature of Contractor _____

C=0 0W=0 D=0 I=0



UNDERTAKING

I, the undersigned do hereby undertake that our firm M/s _____ agree to abide by this bid for a period _____ days for the date fixed for receiving the same and it shall be binding on us and may be accepted at any time before the expiration of that period.

(Signed by an Authorized Officer of the Firm)

Title of Officer

Name of Firm

DATE

C=0 OW=0 D=0 I=0

1
2

Blank

C=0

OW=0

D=0

I=0

1/2

**SECTION 9
DRAWINGS**

$c=0$ $0W=0$ $D=0$ $J=0$ $\frac{1}{2}$

Blank

$C=0$ $\theta_w=0$ $P=0$ $I=0$



List of drawing

SL No.	Drawing	Description of Drawings
1	Steel Arch Bridge 90mtr span	Design and drawing to be submitted by the Bidder.

EXECUTIVE ENGINEER,
MARIYANG DIVISION,
PWD, AP, MARIYANG

Blank



SECTION 10
DOCUMENTS TO BE FURNISHED BY BIDDER

C=0 OW=0 D=0 I=0

Blank

$$c=0$$

$$ow=0$$

$$D=0$$

$$I=0$$

$\frac{1}{2}$