

BORDER ROADS ORGANISATION
MINISTRY OF DEFENCE
HEADQUARTERS CHIEF ENGINEER
PROJECT DANTAK

Name of work: **“DESIGN AND CONSTRUCTION OF AUDITORIUM PORTAL STRUCTURE AS PER BHUTANESE DESIGN WITH VERANDAH OF SIZE 36.00 X 17.60 MTR USING PEB TECHNOLOGY AND ALLIED WORKS, PROVIDING AND ERECTION OF PREFABRICATED SHELTER OF SIZE 16.581 MTRX7.541 MTRX2.7 MTR HEIGHT WITH VERANDAH 1.5 MTR FOR SIGNAL SECTION INCLUDING ALLIED WORK, PROVIDING AND ERECTION OF PREFABRICATED SHELTER OF SIZE 14.64 MTR X 6.10 MTR X 2.7 MTR HEIGHT WITH VERANDAH PROJECTION OF 4X 3 MTR FOR QTR GUARD AND ALLIED WORKS AND DISMANTLING OF EXISTING BUILDING (QTR GUARD,SIGNAL SECTION & STORES CUM GEN SET ROOM) AT HQ CE(P) DANTAK UNDER 102 RCC/19 BRTF PROJECT DANTAK INSIDE BHUTAN: JOB NO.60/344”.**

S/No	Contents	Page No	
(A)	PART-I (UNPRICED/TECHNICAL BID)		
1	Content Sheet.	01	01
2	Tender forwarding letter including eligibility criteria, list and format of qualification documents, Integrity Pact Agreement, Performance Guarantee Bond.	02	13
3	Notice inviting Tender	14	17
4*	General condition of contract based on IAFW-2249, covering amendment upto 48*	18	114
5	Special Conditions.	115	140
6	Particular/ technical specifications including appendices and Undertaking	141	164
(B)	PART-II (PRICED BID)		
7	Item rate contract for works required I.A.F.W-1779-A including Schedule 'A' notes, Schedule A and Tender Page.	165	174
(C)	OTHER DOCUMENTS FORMING PART OF CONTRACT AGREEMENT		
8	Errata/Amendments to tender documents.		
9	Relevant correspondence.		
10	List of preferred makes for civil works Drawings	175	189
11	Acceptance letter.		

* Not attached, these documents can be seen in the office of the Chief Engineer Project Dantak, C/O 99 APO, PIN 931708, during working hours.

(Signature of Contractor with Seal)

(For Accepting Officer)

http : //www.bro.gov.in
E-mail : bro-dtk@gmail.com
Tele : **009752 - 351082/351086/351088**
Fax : **009752 – 351285**

Registered/AD
Headquarters
Chief Engineer
Project Dantak
PIN: 931708
C/O 99 APO

80554/ /E8

Nov 2020

M/S.....

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Name of work: **“DESIGN AND CONSTRUCTION OF AUDITORIUM PORTAL STRUCTURE AS PER BHUTANESE DESIGN WITH VERANDAH OF SIZE 36.00 X 17.60 MTR USING PEB TECHNOLOGY AND ALLIED WORKS, PROVIDING AND ERECTION OF PREFABRICATED SHELTER OF SIZE 16.581 MTRX7.541 MTRX2.7 MTR HEIGHT WITH VERANDAH 1.5 MTR FOR SIGNAL SECTION INCLUDING ALLIED WORK, PROVIDING AND ERECTION OF PREFABRICATED SHELTER OF SIZE 14.64 MTR X 6.10 MTR X 2.7 MTR HEIGHT WITH VERANDAH PROJECTION OF 4X 3 MTR FOR QTR GUARD AND ALLIED WORKS AND DISMANTLING OF EXISTING BUILDING (QTR GUARD,SIGNAL SECTION & STORES CUM GEN SET ROOM) AT HQ CE(P) DANTAK UNDER 102 RCC/19 BRTF PROJECT DANTAK INSIDE BHUTAN: JOB NO.60/344”.**

Dear Sir (s),

1. A set of tender documents for the above work is uploaded on Central Public Procurement Portal www.eprocure.gov.in. Please note that tender will be received by the Accepting Officer at the office of the Chief Engineer (P) Dantak C/O 99 APO or at OIC liaison cell located at HQ 19 BRTF, Jaigaon, Pin-930019, Ph 8145087696 upto **1100 hrs (BST) on 15 Dec 2020** and Part-I of the tender documents will be opened at **1130 hrs (BST) on 21 Dec 2020**. Tender received after the due date and time will not be considered.
2. Tenderers or their duly authorized representative who have submitted their tenders and who wish to be present at the time of opening of tenders may attend the office of Accepting Officer **Chief Engineer (P) Dantak C/O 99 APO** at the above mentioned time.
3. Tender documents will be available on Central Public Procurement Portal www.eprocure.gov.in and printout is to be taken on A4 size paper. It is advisable that downloaded tender document preferably to be printed through laser printer only. Submission of photocopy of tender is not permitted.
4. Tendering procedure shall be single stage **Two bid System** and tender documents shall be prepared in two parts as under:-

Part-I ('Technical Bid' – 'T' Bid) Part-II ('Price/commercial-'Q' Bid)

5. **Part-I (Technical Bid – 'T' Bid)**

(Signature of Contractor with Seal)

(For Accepting Officer)

5.1 (a) The tender to be submitted by the bidder will be comprised of following documents:-

- (i) Eligibility/qualification documents like Engineering Establishment, Experience in similar works, Vehicle/Equipment/Plant details, performance certificates like No poor slow progress in running works, no serious defects and No cancelled/abandoned contracts in which Govt. realized recoveries exist etc..
- (ii) Tender forwarding letter including eligibility criteria, list of qualification documents and instructions to tenderers.
- (iii) Notice Inviting Tender
- (iv) Undertaking for General conditions of Contracts (IAFW 2249) forming part of Contract Agreement.
- (v) Special Conditions of Contract.
- (vi) Particular/Technical Specifications including drawings if any.
- (vii) Any other tender documents except Price Bid.
- (viii) Cost of tender documents is not required to be submitted.
- (ix) Earnest Money by “un-enlisted contractors” and “enlisted contractors” who have not submitted Standing Security Deposit.
- (x) Three copies of drawings prepared by bidders to give a clear idea of the structure proposed by the bidder.

5.2 **Technical Evaluation Criteria**

5.2.1 If contractor is not enlisted with BRO or enlisted with BRO has not submitted standing security deposit, he should submit earnest money.

5.2.2 All the pages of T-bid should have been duly signed by the bidder/authorized rep.

6. **ELIGIBILITY CRITERIA:-** Tenderers shall meet the following eligibility criteria for qualifying in Technical bid.

(a) The tenderer should have working capital and/or credit facilities of at least 10% of the estimated cost of the work (Applicable only for non - enlisted Contractors).

(b) The tenderer should have immovable property of residual market value (i.e. free from loan/mortgage) of at least 10% of estimated cost of work given in NIT.

6.1 **EXPERIENCE**

Tenderer should have successfully completed or substantially completed with any Govt. agencies/PSU/Municipal Corporation/local Govt. bodies three similar works costing not less than the amount equal to 40% of estimated cost of work or two similar works costing not less than the amount equal to 50% of estimated cost of work or one similar work costing not less than the amount equal to 80% of estimated cost of work in last seven & current financial years.

Similar work means – Construction of Building works/ Construction of Pre-Engineered building.

Notes:-

(Signature of Contractor with Seal)

(For Accepting Officer)

1. Substantially completed works means those works which are 90% completed on the date of submission (i.e. gross value of work done up to the last date of submission is 90% or more of the original contract price) and continuing satisfactorily

2. Tenderer shall submit list of work executed in the past 7 years in their letter head duly signed by the proprietor/partner/director of the firm in the Performa contained in Clause 8.1

3. Completion cost of works shall be brought to common base date of receipt of tender as per following formula: -

Completion cost X (1 + Period in days from date of completion to date of receipt of tender/365 days X 0.10)

6.2 **Available Bid Capacity (ABC)**

6.2.1 ABC as per formula given here under should be more than estimated cost of work given in NIT. Tenderers shall calculate ABC and submit details duly signed on letter head.

Available Bid Capacity = 2.5 x A x N- B

A- Maximum value 'of all Civil Engg works in any one year during the last 5 financial years (updated to the current price level with enhancement factors as given below) supported with duly certified Balance Sheets/ Certificates from Chartered Accountant.

<u>Year</u>	<u>Multiplying factor</u>
Last first year (2019-20)	1.10
Last second year (2018-2019)	1.20
Last third year (2017-18)	1.30
Last fourth year (2016-17)	1.40
Last fifth year (2015-16)	1.50

N- Number or years prescribed for completion of work for which the current bid is invited

B- Value of the balance ongoing works to be executed in period N

6.2.2 The tenderers shall indicate actual figures of completion cost 'at work and value of A without any enhancement as stated above.

6.2.3 The tenderer may be accorded an opportunity to clarify or modify his qualification documents, if necessary, with respect to any rectifiable defects through option of short fall in tender documents to be uploaded by the bidder. The tenderer will respond in not more than 07 days of uploading of the clarification letter through shortfall option failing which his tender is liable to be rejected.

6.3 **Vehicles, Equipments and Plants (VEP):**

6.3.1 Tenderer should own or have assured access (through hire/lease/purchase agreement/ other commercial means) to the requisite Equipments, Plants and vehicles in good working condition (complete usage life not more than 7 years except stone crushers)

S/No.	Particulars	A/U	Qty	Remarks
(i)	Batch Concrete Mixture	Nos	02	
(ii)	Wheel Loader/JCB	Nos	01	
(iii)	Vibrator (Needle/Surface)	Nos	04	Each 02
(iv)	Fabrication unit for Pre-Engineered building	Steel Nos	01	
(v)	Tipper	Nos	02	
(Signature of Contractor with Seal)				(For Accepting Officer)

6.3.2 Tenderer shall indicate source of requisite Equipments, Plants and Vehicles along with vintage required for execution of work in following format:-

- (i) Item
 - (ii) Year of Manufacture
 - (iii) Source from where to be arranged (Owned / lease etc.)
 - (iv) Location presently deployed
 - (v) Based on known commitments, whether will be available for use in the proposed contract.
- (b) Copy of documentary support of ownership/assured access to the satisfaction of the Accepting Officer.

Note:- Tenderer should own critical VEP as per specific requirement of the work as decided/specified by the Tender issuing authority in the tender.

6.4 Performance & Other Requirement

- (a) There should not be poor/slow: progress in running work. (If yes, submit details and reasons of delay to check that these are not attributable to him or are beyond his control).
- (b) There are no serious defect observed in work which stand un rectified (if yes, submit details and reasons)
- (c) There are no cancelled/ abandoned contracts in which Govt. unrealized recoveries exist (If yes, submit details and reasons)
- (d) He/They have not been blacklisted by any Govt. Deptt. (if yes, submit details and reasons)
- (e) There are no any Govt. dues outstanding against the firm (If yes, submit details and reasons)
- (f) Tenderer should not be habitual litigant i.e. having more than 3 unsuccessful arbitration/court cases during last years in which his views/claims are substantially rejected.
- (g) Proprietor/partners/directors of firm are not involved in anti national/anti social activities and have neither been convicted nor are any proceedings pending in court for such activities.
- (h) Firm should have been considered capable of taking-more load in work load return circulated by DGBR. In case the firm is not considered capable for taking more work load due to unsatisfactory performance in the running works, in the prevailing report circulated by DGBR their technical bid shall be rejected.

Note (i) (i) ***Eligible class** shall be class E for works with estimated cost up to Rs.0.25 crore (as per NIT), class D for works with estimated cost between Rs.0.25 crore to Rs.0.50 crore (as per NIT), class C for works with estimated cost between Rs.0.50 crore to Rs.1.00 crore (as per NIT), class B for works with estimated cost between Rs.1.00 crore to Rs.3.00 crore (as per NIT), class A for works with estimated cost between Rs.3.00 crore to Rs.7.50 crore (as per NIT), class S for works with estimated cost between Rs.7.50 crore to Rs.15.00 crore (as per NIT) and class SS for works with estimated cost between Rs.15.00 crore to Rs.25.00 crore (as per NIT).

6.5 ENGINEERING ESTABLISHMENT

6.5.1 Firm should have employed following Engineers on regular establishment. Tenderer shall submit list of Engineers on his permanent establishment with qualification & experience along with affidavits from requisite number of Engineers regarding employment with firm and copies of Degree/Diploma Certificates and experience certificate.

Requirement of Technical Staff	Minimum experience
Graduate Civil Engineer – 02 Nos.	02 Years
OR	
Diploma in Civil Engineering – 02 Nos	04 Years

(Signature of Contractor with Seal)

(For Accepting Officer)

7. **JOINT VENTURE (JV) :- No JV is permitted since** Joint ventures are permitted for Bridge works with estimated cost more than Rs.10 Crores and for **other works with estimated cost more than Rs.25 crores**. Number of partners in Joint ventures shall not be more than three. Evaluation shall be done as under :-

<u>Criteria</u>	<u>Method of evaluation</u>
Experience	All partners of JV must satisfy collectively.
Available bid capacity Immovable property	Each partner of JV should meet the criteria in proportion of shares of partners in JV. For example, if any partner has 40% share in JV, he should have available bid capacity more than 40% of estimated cost of work and minimum immovable property equal to 40% of 10% i.e. 4% of estimated cost of work,
Vehicles, Equipments and Plants Working capital Engineering Establishment for execution contracts	All partners of JV must satisfy collectively,
Performance and other requirements	All partners of JV must satisfy individually.

Bid shall be signed so as to legally bind all partners of JV, jointly and severally, and shall be submitted with a copy of the joint venture agreement providing the 'joint and several' liability with respect to the contract. **Relaxation as per note (A) (ix) as stated above shall not be permissible in case of JV.** Payment shall be made either in the name of JV or in the name of lead partner only.

(C) **Disqualification**

Even though the tenderers meet the above criteria, they are liable to be disqualified if they have made misleading or false information in bidding documents submitted.

8 List & format of eligibility documents to be attached along with Part-I of tender documents to prove eligibility: -

8.1 List of works completed/substantially completed in last seven and current financial years and ongoing works in following format:-

Name of work & CA No	Brief scope of work	Name & address of employer/client	Accepted contract amount	Date of commencement of work	Original date of completion	Extended date of completion	Actual date of completion /present progress	Cost of completed work	Cost of balance Work	Remarks explaining reasons of delay if any

Note: Works proving criteria of experience shall be highlighted and performance certificate from client in respect of these works shall be submitted.

8.2 Available Bid Capacity.

For -A: Balance sheets/Certificates from Chartered Accountant indicating annual turnover of Civil Engg works constructed in last 5 years.

For-B: - Contractors shall submit details of ongoing works as per format stated in clause 8.1 of above. Tenderers shall calculate ABC and submit details duly signed.

(Signature of Contractor with Seal)

(For Accepting Officer)

8.3 Equipments, Plants and Vehicles:

(a) Tenderer shall indicate source of requisite Equipments, Plants and Vehicles with vintage required for execution of work in following format:-

S/No.	Item	Year of Manufacture	Source from where to be arranged (Owned/ lease etc)	Location presently deployed	Based on known commitments, whether will be available for use in the proposed contract
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(b) Copy of documentary support of ownership/assured access to the satisfaction of the Accepting Officer is required to be enclosed.

9. Part-II (Priced/commercial'- 'Q' Bid)

9.1 Part-II/(Price/commercial Bid' –'Q' Bid) shall comprise of the following :-

- (i) Schedule 'A' Notes
- (ii) Schedule 'A' **(to be quoted by bidder)**
- (iii) Schedule 'B', 'C' & 'D'
- (iv) Tender & Acceptance page

9.2 Q bid evaluation

- (i) Arithmetical corrections shall be made as per General Conditions of contracts 6 (A)(A) of IAFW 2249.
- (ii) Commercial bids will be reviewed to ensure that the figures indicated therein are consistent with the details of the corresponding Technical bids.
- (iii) For the purpose of evaluation "cost" shall be inclusive of all taxes and duties.
- (iv) Cost of all items of Schedule A shall be totaled and the bidder who has quoted lowest total cost in Schedule A (L-1) shall be considered successful bidder and all other bidders shall be considered unsuccessful. Offer of successful bidder (L-1) shall only be considered for acceptance. If L-1 backs out, re-tendering shall be resorted in a fair and transparent manner.

9.3 Commercial Evaluation

- (i) Any arithmetical errors shall be corrected including any discrepancy in words and figures when the amount expressed in words shall be treated as final.
- (ii) Commercial Bids will be reviewed to ensure that the figures indicated therein are consistent with the details of the corresponding Technical Bids. It shall be ensured that all commercial terms and conditions including payment terms and others as indicated in the tender document have been adhered to.
- (iii) For the purpose of evaluation, cost shall be inclusive of taxes and duties. The ultimate cost to the BRO for complete work should be the deciding factor for determining the lower bidder (L1).

10. All the tender documents (Part-I & Part-II) shall be submitted together at one stage but placed in separate sealed envelopes (supplied by the tenderer) duly marked Part I and Part II as stated above. The two envelopes containing Part I and Part II duly sealed shall be put in one large size envelope (cloth lined, outer cover to be supplied by the tenderer). This
(Signature of Contractor with Seal) (For Accepting Officer)

outer cover shall indicate name of work, name of tenderer, last date and time of receipt of tender prominently.

11. The tender documents (Part-I and Part-II should be submitted/should be dropped in Tender Box kept at the office of Accepting Officer **HQ CE (P) Dantak, C/O 99 APO or at OIC liaison cell located at HQ 19 BRTF, Jaigaon, Pin-930019, Ph 8145087696** before the date and time fixed for receipt of tender. The tender received after due date and time shall not be considered for acceptance. BRO shall not be responsible for any postal or other delay and shall not take care to ensure the submission of tender at place and time fixed for receipt of tender.

12. Tender shall be opened immediately after time indicated in Para 1 herein before in the presence of the tenderers or their authorized representative whoever wish to be present. Part-I only shall be opened first **on 21 Dec 2020 at 1130 hrs (BST)** and Part II (Priced bid) shall not be opened. Part II (Price bid) envelopes shall be signed by the tender opening Officers and some bidders present and shall be put in separate large envelope and sealed by the opening officers. Large envelop shall also be signed by the tender opening Officers and some bidders present. This large size envelope containing unopened price bids shall be kept in safe custody of the officer nominated by the Accepting Officer for this purpose. Qualified tenderers will accordingly be informed along with date and time for opening of their price bid (however date of opening of price bid shall not be earlier than 7 days from the date of opening of part-I). Unqualified tenders will also be informed and their Part II (Price Bid) shall be returned unopened separately. The date of opening of price bids will be intimated separately to the qualified firms and the Part II (Priced Bid as sealed in large size envelope) will be opened on the scheduled date in the presence of such

tenderers who choose to be present and the amounts quoted by the tenderers shall be read out by the opening officer(s) to the tenderers.

13. The Chief Engineer Project Dantak, C/O 99 APO will be Accepting Officer here-in-after referred to as such for the purpose of this contract.

14. Tenderers are requested to quote your "Lump sum" prices on Schedule 'A'/BOQ both in figure and words and extend the amount in Schedule 'A'/BOQ based on the NIT scheme and tender provision.

15. If tenderers desire that any condition or stipulation given in the tender documents is to be modified or deleted, they may submit their comments/suggestion well before last date of submission of tender for consideration by the Deptt for issue of corrigendum/amendments to tender documents. If deptt considers comments/ suggestion suitable, corrigendum/amendments to tender documents shall be issued and also uploaded on BRO web site and CPP Portal. If deptt does not consider comments/suggestion suitable, corrigendum/amendments to tender documents shall not be issued/uploaded on BRO web site/CPP Portal and tenderers shall quote strictly complying with the various provisions given in the tender documents. **Any tender which stipulates any alterations to any of the conditions/provisions laid down in tender documents (including corrigendum/amendments) or which proposes any other conditions of any description whatsoever is liable to be rejected.**

16. The tenderers are advised to visit the work site to acquaint themselves of working and site conditions, before submitting their tender. The submission of tender by a person implies that he has read this tender forwarding letter, the conditions of contract and has made himself aware of the scope and specifications of the work to be done and of the conditions and other factors, site conditions, taxes & levies prevailing etc which may affect the quotation and execution of the work.

(Signature of Contractor with Seal)

(For Accepting Officer)

17 Blank

18. Tenderer must be very careful to deliver a bonafide tender, failing which the tenders are liable to be rejected. Tenderers are, therefore, advised to ensure that their tender must satisfy each and every condition laid down in the tender documents.

19. Tenderers must ensure that their tender is unambiguous and is completed in all respects. Their particular attention is drawn to the following requirements, which must be complied with :-

(a) Tender documents are to be signed, dated and witnessed as provided for the purpose.

(b) All corrections should be signed or initialed. Use of correcting fluid is not allowed.

(c) Cloth lines envelope shall be used for returning the tender documents.

(d) In case they are submitting a BLANK TENDER word '**BLANK**' must be prominently endorsed on the envelope and in Schedule 'A' inside the tender documents and general summary duly signed by the tenderer.

(e) If a tender is submitted on behalf of a firm, it may be signed either by all partners or a person holding a valid power of attorney from all the partners constituting the firm. The person signing the tender on behalf of another or on behalf of a firm shall attach with tender a proper power of attorney duly executed in his favour by such other person or by all the partners stating specifically that he has authority to bind such other person(s) or the firm as the case may be in all matters pertaining to the contract including the arbitration clause. The power of attorney shall be executed as indicated below:-

(i) In case of proprietorship concern if tender is signed by other than proprietor, person signing tender documents should hold power of attorney from proprietor.

(ii) In case of partnership concern, power of attorney shall be executed by all partners.

(iii) In case of company, power of attorney shall be executed in accordance with the constitution of company.

(f) The undertaking is to be signed and attached by tenderer as per format given at Appx 'A'.

20. Tenderer who has downloaded the tender from the BRO website or CPP Portal shall not temper/modify the tender form in any manner. In case if the same is found to be tempered/modified in any manner tender will be completely rejected and tenderer is liable to be banned from doing business with BRO.

21. Your attention is drawn to the Indian Official Secret Act-1923 (XIX of 1923) as amended upto date particularly Section 5 thereof.

(Signature of Contractor with Seal)

(For Accepting Officer)

22. Earnest Money

(a) Earnest money is not required to be attached with tender by the enlisted contractor with BRO (term "enlisted contractor: used in tender documents means "enlisted contractor with BRO") who have submitted standing security but same is required from un-enlisted contractor/enlisted contractors with BRO, who have not submitted standing security deposit.

(b) Un enlisted contractors with BRO/enlisted contractors with BRO, who have not submitted Standing Security Deposit will submit the tender accompanied with Earnest Money amounting to **Rs 2,92,850/- (Rupees Two Lac Ninety Two Thousand Eight Hundred Fifty only)** in the form of Deposit at call Receipt/Term Deposit Receipt/Special Term Deposit Receipt and Bank Guarantee issued in favour of Chief Engineer (P) Dantak, C/o 99 APO by Nationalized/Scheduled Bank. Tender not accompanied with earnest money will not be considered for acceptance. The amount of this receipt should be basic amount and not their maturity value. Any deposit lying with the department in any form against any other tender and/or contract shall not be considered for adjustment as the earnest money against the tender. Any tender not accompanied with the earnest money in the form as indicated here-in-before or accompanied with any letter/communication containing any request for adjustment of any other deposit as earnest money shall be treated as non bonafied tender.

(c) Earnest Money shall be returned to unsuccessful bidders (other than L-1) after opening of price bids and to successful (L-1) bidder after receipt of security deposit.

(d) However, MSME registered firm shall be exempted for submission of EMD.

23. PERFORMANCE SECURITY:-

23.1 Within 28 days of receipt of the Letter of Acceptance, the successful contractor shall deliver to the Accepting Officer a Performance security in any of the forms given below for an amount equivalent to 5% of the contract sum.

(a) A Bank Guarantee in the prescribed form.

(b) Government Securities, FDR or any other Government instruments stipulated by the Accepting Officer.

23.2 If the performance security is provided by the successful contractor in the form of Bank Guarantee, it shall be issued by Nationalized /Scheduled Indian Bank but its confirmation shall be done only from the Head Office of the Bank.

23.3 Failure of the successful contractor to comply with the requirements of sub-clause 23.1 shall constitute sufficient grounds for cancellation of the award of work and forfeiture of the Earnest Money. In case of MES enlisted contractor, amount equal to the Earnest money stipulated in the Notice Inviting Tender, shall be notified to the tenderer for such tenderers shall remain suspended till the aforesaid amount equal to the Earnest money is deposited in Government Treasury.

23.4 All compensation or other sums of money payable by the contractor to the Government under the terms of this contract or under any other contract with Government may be deducted from, or paid by the sale of a sufficient part of the Performance Security or from the interest arising there from or from any sums which may be due or become due to the contractor by the Government on any account whatsoever and in the event of his Performance Security being reduced by reason of any such deduction, or sale as aforesaid, the contractor shall with ten days thereafter make good in cash or securities, endorsed as

(Signature of Contractor with Seal)

(For Accepting Officer)

aforesaid, any sum or sums which may have been deducted from or realized by the sale his Performance Security or any part thereof.

Government shall not be responsible for any loss of securities or any depreciation in the value of securities while in their change nor for loss of interest thereon.

23.5 In the event of contract being cancelled, under Condition 52, 53, & 54 of IAFW-2249 General Conditions of Contracts the Performance Security shall be forfeited in full and shall be credited into Consolidated Fund of India.

23.4 Form of Bank Guarantee bond against performance security deposit shall be as per Annexure- III.

23.5 The period of validity of the Bank Guarantee Bond against Performance Security shall be upto and including the scheduled date of expiry of Defects Liability Period.

24. The Accepting Officer reserves the right to accept a tender submitted by a Public Undertaking, giving a purchase preference over other tender(s) as are admissible under the Government Policy. No claim for any compensation or otherwise shall be admissible to such tenders whose tenders may be rejected on account of the said policy.

25. The tender shall remain open for acceptance for a period of **120 days** from bid submission end date.

26. On acceptance of tender, the name of authorized representative (s) of the contractors who would be responsible for taking instructions from Engineer-in-Charge or its authorized representative shall be intimated by the contractor within 7 days of issue of Acceptance letter.

27. **Revision/Modification of quoted price :-**

(a) The tenderer shall quote his rates on the Schedule 'A' and General Summary pages only. In case the tenderer has to revise/modify the rates quoted in the Schedule 'A' and/or General Summary before deposition in tender box, he may do so only in the Schedule 'A'/General Summary.

(b) In case of a tenderer has to revise/modify/withdraw his quoted rates/offer after it is deposited in Tender Box, he may do so on his letter head before the latest time fixed for submission of tenders and deposit in tender box in sealed/properly closed cover only. Any revision/modification in offer/withdrawal of offer in the form of an open letter shall not be taken into account, while considering his originally quoted offer.

(c) The tenderers shall not be permitted to revise/modify/withdraw price bid unopened after closure of the time fixed for receipt of tender.

28. **Revocation of offer :-** In the event of lowest tenderer revokes his offer or revise his rates upward (which will be treated as revocation of offer), after opening of tenders and before expiry of original validity period stipulated in tender documents, the earnest money deposited by him shall be forfeited. In case of BRO enlisted contractors, the amount equal to the earnest money stipulated in the Notice of tender, shall be notified to the tenderer for depositing the amount through MRO, failing which the amount shall be recovered from any payment due to such Contractor or shall be adjusted from the Standing Security Deposit. In addition, L-1 tenderer revoking offer and his related firms shall not be issued the tender in second or subsequent calls of subject work.

Enclosures : Tender Documents including drawings

(Signature of Contractor with Seal)

(For Accepting Officer)

Appendix 'A'

(Ref Para-16 (f) of Forwarding Letter)

UNDERTAKING BY AUTHORISED SIGNATORY

I, the undersigned do hereby under take that our firm M/s _____ agree to abide by Terms and Conditions of subject Tender for **“DESIGN AND CONSTRUCTION OF AUDITORIUM PORTAL STRUCTURE AS PER BHUTANESE DESIGN WITH VERANDAH OF SIZE 36.00 X 17.60 MTR USING PEB TECHNOLOGY AND ALLIED WORKS, PROVIDING AND ERECTION OF PREFABRICATED SHELTER OF SIZE 16.581 MTRX7.541 MTRX2.7 MTR HEIGHT WITH VERANDAH 1.5 MTR FOR SIGNAL SECTION INCLUDING ALLIED WORK, PROVIDING AND ERECTION OF PREFABRICATED SHELTER OF SIZE 14.64 MTR X 6.10 MTR X 2.7 MTR HEIGHT WITH VERANDAH PROJECTION OF 4X 3 MTR FOR QTR GUARD AND ALLIED WORKS AND DISMANTLING OF EXISTING BUILDING (QTR GUARD,SIGNAL SECTION & STORES CUM GEN SET ROOM) AT HQ CE(P) DANTAK UNDER 102 RCC/19 BRTF PROJECT DANTAK INSIDE BHUTAN: JOB NO.60/344”**. from Page No. **1 to 189** as advertised on the www.eprocure.gov.in and it shall be binding on us and may be accepted at any time before the expiration of stipulated tender conditions.

(Signed by an Authorized Rep of the firm)_____
Title of Rep_____
Name of Firm_____
Date

(Signature of Contractor with Seal)

(For Accepting Officer)

Annexure-III**PERFORMANCE GUARANTEE BOND**

(To be used by approved Scheduled Banks)

1. In consideration of the President of India (hereinafter called "the government") having agreed to exempt (here in after called "the said Contractor(s)") from the demand, under the terms and conditions of an Agreement dated Made between-----
----- and ----- for---
----- (hereinafter called the said Agreement), of security deposit for the due fulfillment by the said Contractor(s) of the terms and conditions contained in the said Agreement on production of a Bank Guarantee for Rs.
(Rupeesonly) we
Bank Ltd. (hereinafter referred to as the bank) do hereby undertake to pay the Government an amount not exceeding Rs. against any loss or damage caused to or would be caused to or suffered by the Government by reason of any breach by the said contractor(s) of any the terms or conditions contained in the said Agreement.
2. We..... Bank Ltd. do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the Government stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Government by reason of any breach by the said contractor(s) of any of the terms or conditions contained in the said Agreement or by reason of the contractor's (s) failure to perform the said Agreement. Any such demand made on the bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However our liability under this guarantee shall be restricted to an amount not exceeding Rs.....
3. We..... Bank Ltd. further agree that guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the Government under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till..... (Office/Department), Ministry of Certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said contractor(s) and accordingly discharges the guarantee. Unless a demand or claim under this guarantee is made to us in writing on a before the we shall be discharged from all liabilities under this guarantee thereafter.
4. We..... Bank Ltd. further agree with the Government that the Government shall have the fullest liberty without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said Contractor(s) from time to time postpone for any time or from the time to time any of the powers exercisable by the Government against the said contractor(s) and to forbear or enforce any of terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said contractor(s) or for any forbearance. Act or omission on the part of the Government or any indulgence by the Government to the said contractor(s) or any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.
5. We..... Bank Ltd. lastly undertakes not to revoke this guarantee during its currency except with the previous consent of the Government in writing.

(Signature of Contractor with Seal)

(For Accepting Officer)

NOTICE INVITING TENDER
(NATIONAL COMPETITIVE BIDDING)
BORDER ROADS ORGANISATION
CHIEF ENGINEER PROJECT DANTAK, C/o 99 APO

1. A sealed tender is invited for **“DESIGN AND CONSTRUCTION OF AUDITORIUM PORTAL STRUCTURE AS PER BHUTANESE DESIGN WITH VERANDAH OF SIZE 36.00 X 17.60 MTR USING PEB TECHNOLOGY AND ALLIED WORKS, PROVIDING AND ERECTION OF PREFABRICATED SHELTER OF SIZE 16.581 MTRX7.541 MTRX2.7 MTR HEIGHT WITH VERANDAH 1.5 MTR FOR SIGNAL SECTION INCLUDING ALLIED WORK, PROVIDING AND ERECTION OF PREFABRICATED SHELTER OF SIZE 14.64 MTR X 6.10 MTR X 2.7 MTR HEIGHT WITH VERANDAH PROJECTION OF 4X 3 MTR FOR QTR GUARD AND ALLIED WORKS AND DISMANTLING OF EXISTING BUILDING (QTR GUARD, SIGNAL SECTION & STORES CUM GEN SET ROOM) AT HQ CE(P) DANTAK UNDER 102 RCC/19 BRTF PROJECT DANTAK INSIDE BHUTAN: JOB NO.60/344”.**
2. Tender documents may be downloaded from Central Public Procurement Portal www.eprocure.gov.in and printout is to be taken on A4 size paper. It is advisable that the downloaded tender document is preferably printed through laser printer only. Submission of photocopy of tender is not permitted.
3. The work is estimated to cost **Rs 217.85 lakhs (Rupees Two crore Seventeen lacs Eighty Five thousand only)** approximately or as subsequently amended in tender documents and uploaded in BRO website and Central Public Procurement Portal. This estimate, however is not a guarantee and is merely given as a rough guide and if work costs more or less, tenderer shall have no claim on that account of whatsoever nature.
4. The tender shall be based on Drawings, Specifications, **General Conditions of Contracts IAFW-2249, lump sum contract based on IAFW-2159 with Schedule "A" (list of works)** to be quoted by tenderers.
5. Not more than one tender shall be submitted by one contractor or contractors having business relationship. Under no circumstances will a father or his son(s) or other close relations who have business relationship with one another (i.e. when one or more partners/directors are common) be allowed to tender for the same contract as separate competitors. A breach of this condition will render the tenders of both the parties liable to rejection.
6. The work is to be completed within **12 Months** or as subsequently amended in tender documents or uploaded in BRO website and Central Public Procurement Portal in accordance with the phasing, if any, indicated in the tender from the date of handing over the site, which will be generally within one month from the date of issue of acceptance letter.
7. Tender documents will be available on Central Public Procurement Portal www.eprocure.gov.in wef **23 Nov 2020** and onwards.
8. The Chief Engineer (P) Dantak, C/o 99 APO will be the Accepting Officer hereinafter, referred to as such for the purpose of this contract.
9. Tender (in full) either downloaded from BRO website or issued by the Chief Engineer Project Dantak . Tender documents received at HQ CE (P) Dantak , C/o 99 APO **or at OIC liaison cell located at HQ 19 BRTF, Jaigaon, Pin-930019, Ph 8145087696 at 1100 hrs (BST) on 15 Dec 2020 . Part-I Technical bid will be opened on 21 Dec 2020 at 1130hrs**

(Signature of Contractor with Seal)

(For Accepting Officer)

(BST) and date of opening of **Part II priced bid** shall intimated separately to the qualified bidders.

10. Intending tenderers are advised to visit BRO website and Central Public Procurement Portal three days prior to last date of submission of tender for any corrigendum/addendum/amendment. Tender received after due date shall not be considered for opening and no reason for delay or claim whatsoever shall be entertained.

11. Earnest Money is not required to be attached with tender by the enlisted contractors with BRO who have submitted Standing Security Deposit but it is required from other contractors for **Rs 2,92,850/- (Rupees Two lacs Ninety Two Thousand Eight Hundred Fifty only)** in the shape of Deposit at Call Receipt/Term Deposit Receipt/Special Term Deposit Receipt and Bank Guarantee Bond issued in favour of the Accepting Officer i.e. **Chief Engineer (P) DANTAK, C/O 99 APO** obtained from any Nationalised/ Scheduled Bank and having maturity/validity period 30 days more than validity period of this offer. Tenders not accompanied with earnest money will not be considered for acceptance. The amount of this receipt should be basic amount and not their maturity value. Any deposit lying with the department in any form against any tender and/or contract shall not be considered for adjustment as the earnest money against this tender. Any tender not accompanied with the earnest money in the form as indicated here-in-before or accompanied with any letter/communication containing any request for adjustment of any other deposit as earnest money shall be treated as non bonafide tender. Un-enlisted contractors may note that they will be required to lodge Security Deposit of the work in the prescribed form on receipt in writing from the Accepting Officer, if their offer is accepted.

12. The tenderer are advised to visit the work site by making prior appointment with the Commander, 19 Border Roads Task Force and 102 RCC, C/o 99 APO sufficiently in advance (Telephone No of the Commander, 19 BRTF is **009755-252201**).

13. A tenderer shall be deemed to have full knowledge of all relevant documents, samples, site etc whether he had inspected them or not.

14. Any qualification documents/tender which stipulates any alternative to any of the conditions laid down or which proposes any other conditions of any description whatsoever is liable to be rejected.

15. Accepting Officer reserves his right to accept a tender submitted by a public undertaking, giving a price preference over other tender (s) which may be lower, as are admissible under the Govt. policy. No claim for any compensation or otherwise shall be admissible from such tenderer (s) whose tenders may be rejected on account of the said policy.

16. The submission of tender by a tenderer implies that he had read this notice and conditions of contract and has made himself aware of the scope and specifications of the work to be done and of the conditions rates at which stores, tools and plants etc will be issued to him, local conditions and other factors bearing on the execution of the work.

17. Tender cost is not required as per GFR 2017.

18. The Accepting Officer does not bind himself to accept the lowest or any tender or to give any reasons for not doing so.

19. Tenderer who has downloaded the tender from the BRO website/Central Public Procurement Portal shall not temper/modify the tender form in any manner. In case if the

(Signature of Contractor with Seal)

(For Accepting Officer)

same is found to be tempered/modified in any manner, tender will be summarily rejected and tenderer is liable to be banned from doing business with BRO.

20. For further particulars, you may refer BRO website <http://www.bro.gov.in> and Central Public Procurement Portal <http://www.eprocure.gov.in>.

21. For eligibility criteria and other details, tender documents uploaded on BRO website and CPP Portal shall be referred to.

22. In the event of lowest tenderer revoking his offer or revising his rates upward (which will be treated as revocation of offer), after opening of tenders, the earnest money deposited by him shall be forfeited. In case of BRO enlisted contractors, the amount equal to the earnest money stipulated in the Notice of tender, shall be notified to the tenderer for depositing the amount through MRO, failing which the amount shall be recovered from payment due to such Contractor or shall be adjusted from the Standing Security Deposit. In addition, such tenderer and his related firm shall not be issued the tender in second or subsequent calls. Moreover, they shall not be issued any tender in BRO till such time the requisite amount is deposited by them.

23. Above particulars may change due to Adm or any other reasons and shall be available on BRO website <http://www.bro.gov.in> or CPP Portal <http://www.eprocure.gov.in>. Therefore, bidders/contractors are requested to visit BRO website and Central Public Procurement Portal frequently for noting any changes in above particulars.

24. This notice of tender shall form part of the contract.

No. 80554/ /E8

Headquarter

Cheif Engineer
Project Dantak
PIN: 931708
C/O 99 APO

EE (Civ)
SW
For Accepting Officer
Dated: Nov 2020

(Signature of Contractor with Seal)

(For Accepting Officer)

NOTICE INVITING TENDER (CONTD...)**Distribution :- For info and wide publicity please.**

1	HQ DGBR/E8 Seema Sadak Bhawan Ring Road, Delhi Cantt New Delhi – 110 010	2	HQ DGBR/B&T Dte Seema Sadak Bhawan Ring Road, Delhi Cantt New Delhi – 110 010	3	HQ DGBR/East Dte Seema Sadak Bhawan Ring Road, Delhi Cantt, New Delhi – 110 010
4	HQ ADGBR (North- West), Sec-48-C, Near Motor Market, Chandigarh-160047	5	HQ ADGBR (East) PIN-900885 C/o 99 APO	6	R&D Estt PIN-931723 C/o 99 APO
7	The Chief Engineer, MES, Shillong Zone, Shillong, Meghalaya	8	MES Builders Association of India, 807, Sahyog 58, Nehru Place, New Delhi-110 019.	9	HQ 19 BRTF PIN : 930019 C/O 99 APO
10	60 RCC (GREF) PIN : 930060 C/O 99 APO	11	63 RCC (GREF) PIN : 930 063 C/O 99 APO	12	64 RCC (GREF) PIN : 930 064 C/O 99 APO
13	102 RCC (GREF) PIN : 930102 C/O 99 APO	14	Builder Association of India, G1/G20 Commerce Centre, Dodajee Road, Tardeo, Mumbai-400034.	15	CPWD Contractor's Association, B-Wing, I.P. Bhawan, New Delhi-110002
16	HQ CE (P) Arunank, PIN 931719, C/o 99 APO	17	HQ CE (P) Brahmark, PIN 931722, C/o 99 APO	18	HQ CE (P) Beacon, PIN 931706, C/o 56 APO
19	HQ CE (P) Chetak, PIN 931707, C/o 56 APO	20	HQ CE (P) Deepak, PIN 931709, C/o 56 APO	21	HQ CE (P) Himank, PIN 931710, C/o 56 APO
22	HQ CE (P) Sampark, PIN 931712, C/o 56 APO	23	HQ STF HIRAK, PIN 931724, C/o 56 APO	24	HQ CE (P) Shivalik, PIN 931718, C/o 56 APO
25	HQ CE (P) Rohtang Tunnel, PIN 931720, C/o 56 APO	26	HQ CE (P) Vijayak, PIN 931721, C/o 56 APO	27	HQ CE (P) Pushpak, PIN 931711, C/o 99 APO
28	HQ CE (P) Sewak, PIN 931714, C/o 99 APO	29	HQ CE (P) Vartak, PIN 931716, C/o 99 APO	30	HQ CE (P) Udayak, PIN 931715, C/o 99 APO
31	HQ CE (P) Swastik, PIN 931717, C/o 99 APO				

(Signature of Contractor with Seal)

(For Accepting Officer)

GENERAL CONDITIONS OF CONTRACTS**IAFW-2249: 1989 PRINT****FOR***** LUMP SUM CONTRACTS (IAFW-2159) REVISED 1947****AND***** ITEM RATE CONTRACTS (IAFW-1779A) REVISED 1955**

1. A copy of the GENERAL CONDITIONS OF CONTRACTS (IAFW-2249: Print 1989) with Errata 1 to 20 and Amendments Nos. 1 to 48 has been supplied to me/us and or is in my/our possession. I/We have read and understood the provisions contained in the aforesaid GENERAL CONDITIONS OF CONTRACTS before submission of this tender and I/We agree that I/We shall abide by the terms and conditions thereof, as modified, if any elsewhere in these tender documents.
2. It is hereby further agreed and declared by me/us, that the GENERAL CONDITIONS OF CONTRACTS (IAFW-2249 Print- 1989) including condition 70 thereof pertaining to settlement of disputes by arbitration (IAFW-2249) and condition No.71 pertaining to appointment of Dispute resolution Board shall form part of these tender documents.
3. Wherever the phrases Commander Works Engineer (CWE) and Garrison Engineer (GE) have been used in the General Conditions of Contract (IAFW-2249) the same are considered as Task Force Commander (TFC) and OC Contract respectively as applicable in Border Roads Organisation.
4. This tender submitted by me/us is subject to the aforesaid General condition of contract IAFW-2249, errata and amended copy of which is in my/our possession and which I/we have read and fully understood before submission of tender.
5. My/our signature here under is in token of my/our having accepted the aforesaid amended General conditions of contract including errata & amendments there to (IAFW-2249) and the clause relating to arbitration forming as integral part of this tender.

- **Delete whichever is not applicable**

NOTE :- THE COPY OF GENERAL CONDITIONS OF CONTRACT IAFW-2249 CAN BE REFERRED IN ANY OFFICE OF BRO.

(Signature of Contractor with Seal)

(For Accepting Officer)

(SPECIAL CONDITIONS CONTD...)

NAME OF WORK: "DESIGN AND CONSTRUCTION OF AUDITORIUM PORTAL STRUCTURE AS PER BHUTANESE DESIGN WITH VERANDAH OF SIZE 36.00 X 17.60 MTR USING PEB TECHNOLOGY AND ALLIED WORKS, PROVIDING AND ERECTION OF PREFABRICATED SHELTER OF SIZE 16.581 MTRX7.541 MTRX2.7 MTR HEIGHT WITH VERANDAH 1.5 MTR FOR SIGNAL SECTION INCLUDING ALLIED WORK, PROVIDING AND ERECTION OF PREFABRICATED SHELTER OF SIZE 14.64 MTR X 6.10 MTR X 2.7 MTR HEIGHT WITH VERANDAH PROJECTION OF 4X 3 MTR FOR QTR GUARD AND ALLIED WORKS AND DISMANTLING OF EXISTING BUILDING (QTR GUARD,SIGNAL SECTION & STORES CUM GEN SET ROOM) AT HQ CE(P) DANTAK UNDER 102 RCC/19 BRTF PROJECT DANTAK INSIDE BHUTAN: JOB NO.60/344".

1. GENERAL

The following Special Conditions shall be read in conjunction with General Conditions of Contracts **IAFW-2249**, including amendments thereto and whereas variation exists the Special Conditions shall take precedence over the aforesaid General Conditions. The Special Conditions given in succeeding paragraphs shall be read in conjunction with Schedule A, Particular Specifications and General Conditions of Contracts IAFW-2249. In case of any discrepancies in the various provisions of the contract, the following order of precedence shall be observed:-

- (a) Description given in Schedule 'A'.
- (b) Particular/Technical Specifications.
- (c) Ministry of Road Transport & Highways (MoRT&H) specifications for Road and Bridge works published by Indian Roads Congress New Delhi (Vth Revision).
- (d) Drawings and sketches.
- (e) Special Conditions.
- (f) General Conditions of Contracts.

2. INSPECTION OF SITE

The contractor is particularly advised to inspect the site(s) of work by making prior appointment with Chief Engineer (P) **Dantak** C/O 99 APO, Commander **19 BRTF**, C/O 99 APO so as to acquaint himself with regard to the nature and conditions of site, nature and means of local communication, working hours, conditions of access and all other cognate matters concerning the execution and completion of the work. Any paths, tracks, approaches etc, required for the movement of plants, equipments, machines and vehicles etc to the work site and platform, bund etc required for the execution of work will be responsibility of the contractor and rates quoted must include these aspects also where required. The tenderer shall be deemed to have inspected the site and made himself familiar with various factors which may affect his quotation whether he actually inspects the site or not. No extra charges consequent on misunderstanding or otherwise will be allowed.

3. LAND FOR OFFICES ETC

The contractor shall have to make his own arrangements for land as may be required by him for housing of staff and labour and for erection of stores sheds, office,

(SPECIAL CONDITIONS CONTD...)

godowns etc for the work. The Contractor must ensure that the staff, labour, plants, equipment, Machines, vehicles & stores etc. employed or collected in connection with the work are so located that there is no hindrance to the free flow of the traffic on the highway. Suitable warning boards, lights and other measures are to be provided by the contractor at his own cost, for safety of the traffic.

4. MINIMUM FAIR WAGES PAYMENT TO LABOURERS

(a) The contractor shall pay wages not less than the fair wage fixed from time to time by the State Govt. or minimum wages fixed under the Minimum Wages Act by Central Govt. whichever is higher. He shall have no claim whatsoever, if on account of any local regulations or otherwise he is required to pay wages in excess of the wages so fixed. However, for the calculation of escalation payment, value of L₁ & L₀ will be considered on minimum wages fixed under Minimum Wages Act.

(b) The contractor shall observe the Laws/Rules/Regulations of Govt. of **Bhutan** regarding the employment of labour, mode of payment of wages and cognate matters relating to the local conditions.

(c) In case local labourers are not available, the contractor may have to obtain written permit from appropriate authority of Govt of **Bhutan** to import labour from outside the Bhutan.

(d) The contractor shall ensure compliance to all the labour wages laws and benefit rules for the labour employed by him.

(e) The contractor shall maintain muster roll of labourers engaged in the work alongwith wages being paid to labourers (trade wise). The muster roll shall be available at site for inspection by Engineer-in-Charge or any authorized Govt. Officials.

5. ROYALTIES. The Contractor shall make his own arrangement for procuring materials required under the contract and he shall ensure that the royalty for the material procured by him under this CA has been correctly paid to the concerned authority. Any claim of royalty by the concerned department on the material procured under this CA shall be settled with concerned authority directly by Contractor. Further the contractor should ensure that the supply of material is not arranged illegally. An undertaking to this account will be given by contractor before payment of RAR/Final bill

6. BLASTING ROCKS

(a) The contractor shall be responsible for the safe custody and storage of blasting materials in accordance with the rules on the subject. Written authority of the OC shall be obtained before any blasting operations are commenced.

(b) The contractor shall ensure that the charges in blasting are not excessive and that the charged boreholes are properly protected before firing and that proper precautions are taken for the safety of men and property.

(SPECIAL CONDITIONS CONTD...)

(c) Blasting should be generally avoided. In case it is unavoidable less charge controlled blasting may be resorted with the prior permission of the Engineer-in-Charge. The contractor shall be bound to abide by the instructions of the OC regarding the necessity of blasting and the type, number size and pattern of holes to be drilled and also the type, amount and method of firing of explosive to be used. The OC shall reserve the right to restrict the number of charge to be fired at a time so that the hillside is not adversely affected. The contractor shall fire the charges only at such time as approved by the OC and shall have no claim, whatsoever, on account of any delay and extra cost due to carrying out the instructions of the OC and/or taking the safety precautions directed by him.

7. MOVEMENT OF CONTRACTOR'S VEHICLES

7.1 Minimum classification of existing bridges on the roads are Class 18R/24R/40R/70 R bridges. Contractor should not bring any heavier vehicles or plant/equipment, as such vehicles/plants/equipment shall not be allowed on the bridges. The contractor's vehicles may be required to ply in convoys as per directions given by the concerned Civil/Military authorities. No extra payment/time will be admissible on this account.

7.2 In case the condition of these bridges warrant further downward load classification due to any unforeseen circumstances the same would be done by the OC Contract whose decision shall be final and binding. In case of any such eventuality, the contractor may have to unload his heavy load carriers at locations indicated to suit the load classification indicated by the OC Contract. Any such heavy load carriage thus necessitated across such indicated bridge(s) shall have to be done by the contractor without any additional payment, and no claim whatsoever on this account shall be entertained.

8. SECURITY RESTRICTIONS

8.1 Contractor's intention in invited to condition 25 of IAFW-2249 Contractor shall employ only Indian/Bhutanese National after verifying their antecedents and loyalty. The Contractor shall on demand by the Engineer-in-Charge/OC Contract, submit list of his agents, employees and work people concerned and shall satisfy the Engineer-in-Charge/OC Contractor as to the bonafide credential of such people.

8.2 The contractor and his workmen shall observe all the rules promulgated by the authority controlling the area in which work is to be carried out e.g. prohibition of smoking, lighting, fire precautions, search of persons on entry and exit, keeping to specified routes and restricted hours of work etc. Thorough search of all persons and transport may be conducted by the departmental authorities at the site of works at any time and any number of times for security reasons Necessary Permits are to be obtained from Civil Authorities by the contractor, for himself, his staff and labour. Nothing shall be paid extra on this account.

8.3 Necessary assistance will be extended to the contractor by the department for providing passes /permits to the contractor, his representatives and workmen to enter the Bhutan.

(SPECIAL CONDITIONS CONTD...)**9. FREE ACCESS TO SITES AND LOOKING AFTER OF WORKS**

The contractor shall give all reasonable facilities to this department personal for the inspection of the works being executed under this contract. He will also provide free access to the works if being executed by this department or other agencies and if such works are located near the sites covered under this contract. Responsibility of all the works covered in this contract will lie on the contractor and these works will be fully completed and accordingly handed over to this department.

10. TAXES ETC

The tendered amount shall inter-alia be deemed to be inclusive of all taxes, viz work Contract Tax, terminal taxes, toll taxes, Royalty, octroi, **GST**, sale tax/VAT, Service Tax, or any other taxes and the like levies payable under the respective existing country/states etc. No claim on account of any taxes will be payable to contractor whatsoever except as provided in sub para 11 (b) here-in-after.

10.1 GST/Sales Tax are not applicable for Project Dantak. For any query regarding **exemption of GST** on import of goods and services **from India to Bhutan**, kindly refer to the following websites for detail information.

- (aa) www.cbec.gov.in/htdocs-cbec/gst/index.
- (ab) www.cbec.gov.in/resources/htdocs-cbec/gst/notfctn-42-igst-rate-english.pdf.
- (ac) www.cbec.gov.in/resources/htdocs-cbec/gst/notfctn-300CGST-rate-english.pdf.

10.2 For Indian Supplier only. As supply to Project Dantak located outside India, no GST is applicable. Indian Supplier / Bidder shall attach undertaking certificate as per the following format mandatorily :-

UNDERTAKING CERTIFICATE

“It is certified that the goods / materials given in the CA No _____ of HQ CE (P) Dantak will be supplied by me / our firm as export and for use in Bhutan. It is declared that no GST cost has been included by me in the rates quoted in above mentioned enquiry”.

Signature with date :

Name of the bidder :

Name of firm with address:

Certificate on account of GST as per Rule No 16 (1) of IGST Act 2017 will be issued on receipt of stores as format of certificate is as given under:-

(SPECIAL CONDITIONS CONTD...)**GST : ZERO RATED SUPPLY CERTIFICATE**

1. It is certified that the goods supplied by your firm against CA No _____ for the cost of Rs. _____/- (Rupees _____ only) is a zero rated Supply as per **GST Rule No 16 (1) of IGST Act 2017** as the goods were supplied as an export and to be used in Bhutan by this Project.
2. It is further certified that no amount was paid to your firm by this Project on account of GST

Consignee Unit

Indian firms may refer to rule 16 of IGST Act 2017 and Notification No. 42/2017-Integrated Tax (Rate) Ministry of Finance dated 27 Oct 2017.

11. RE-IMBURSEMENT/REFUND ON VARIATION IN "TAXES DIRECTLY RELATED TO CONTRACT VALUE"

(a) The rates quoted by the contractor shall be deemed to be inclusive of all applicable taxes (viz **GST** on works contracts, Turnover Tax, Labour Welfare Cess/Tax, Ecological and Environment Cess etc), duties, Royalties, Octroi & other levies payable under the respective statutes. No re-imbursement/refund for variation in rates of taxes, duties, royalties, Octroi & other levies, and/or imposition/abolition of any new/existing taxes, duties, Royalties, Octroi & other levies shall be made as provided in sub Para (b) here-in-below.

(b) (i) The taxes which are levied by Govt. at certain percentage rates of contract sum/amount shall be termed as "taxes directly related to contract value" such as **GST applicable on works contracts, Turnover Tax, Labour Welfare Cess/tax and like but excluding Income Tax. The tendered rates shall be deemed to be inclusive of all "taxes directly related to contract value" with existing percentage rates as prevailing on last due date for receipt of tenders. Any increase in percentage rates of "taxes directly related to contract value" with reference to prevailing rates on last due date for receipt of tenders shall be reimbursed to the contractor and any decrease in percentage rates of "taxes directly related to contract value" with reference to prevailing rates on last due date for receipt of tenders shall be refunded by contractor to the Govt/deducted by the Govt. from any payments due to the contractor. Similarly imposition of any new "taxes directly related to contract value" after the last due date for receipt of tenders shall be reimbursed to the contractor and abolition of any "taxes directly related to contract value" prevailing on last due date for receipt of tenders shall be refunded by the contractor to the Govt/deducted by the Govt. from the payments due to the contractor.**

(ii) The contractor shall within a reasonable time of his becoming aware of variation in percentage rates and/or imposition of any further "taxes" directly related to contract value" give written notice thereof to the OC Contract stating that the same is given pursuant to this Special Condition, together with all information relating thereto which he may be in a position to supply. The Contractor shall submit the other documentary proof/information as the OC Contract may require.

(SPECIAL CONDITIONS CONTD...)

(iii) The Contractor shall, for the purpose of this condition keep such books of account and other documents as are necessary and shall allow inspection of the same by a duly authorised representative of Govt. and shall further, at the request of the OC Contract furnish, verified in such a manner as the OC Contract may require, any documents so kept and such other information as the OC Contract may require.

(iv) Reimbursement for increase in percentage rates/imposition of "taxes directly related to contract value" shall be made only if the contractor necessarily & properly pays additional "taxes directly related to contract value" to the Govt. without getting the same adjusted, against any other tax liability or without getting the same refunded from the concerned Govt. authority and submit documentary proof for the same as the OC Contract may require."

Note:- The word Goods & Services Tax (GST) in the above clause includes Central Goods & services Tax (CGST), State Goods & Services Tax (SGST), Union Territory Goods & Services Tax (UTGST) & Integrated Goods & Services Tax (IGST) all as applicable.

12. SECURITY OF DOCUMENTS

The contractor shall not communicate any classified information regarding works/organisation either to the sub contractor or others without prior approval of the Engineer-in-Charge. Any violation on this aspect will be forfeit the right of the contractor to claim any amount due to the contractor whatsoever held with organisation.

13. FOREIGN EXCHANGE/IMPORT LICENSE

No foreign exchange and/or import license will be arranged by the Department in connection with the work under this contract.

14. CONTRACTOR'S VEHICLES/ PLANT/EQUIPMENT AT SITE

(a) The contractor shall furnish to the Engineer-in-Charge a distribution return of his plant/equipment on the site of works, stating the following particulars: -

(i) Particulars of Plant/equipment i.e. Make, Manufacture's No, Model No, if any, Registration No, if any, capacity, yearn of manufacture, year of purchase etc.

(ii) Total quantity on site of work.

(iii) Location indicating quantity at the site of work.

(b) For the purpose of this condition, plant/equipment shall include vehicles, trucks and lorries but not the workmen's tools and/or any manually operated tools/equipment.

(c) The Engineer-in-Charge shall record the particulars supplied by the contractor as aforesaid, in the works diary and send a return to OC Contract for record in his office.

(d) The first return shall be submitted immediately after any plant or equipment is brought to the site. Thereafter every week changes in the return shall be furnished in the following form: -

Srl No	Particulars of Plant / Eqpt	Total No at site of work	Location	Remarks

(SPECIAL CONDITIONS CONTD...)

Additional since -----

Reduction since -----

(Signature of contractor)

(e) A complete return showing the upto-date position of plant/equipment at site shall be submitted on 15th of every month till the works are completed and the site cleared.

(f) The contractor's attention is invited to condition 34 of General Conditions of Contracts according to which no tool, plant/equipment shall be removed off the site without written approval of the OC Contract.

15. **FIXING OF PERMANENT AND TEMPORARY BENCH MARKS.** Pmt Bench Mark be fixed at any nearby safe location or considered from any existing Permanent Building. RL be transferred and TBM be fixed at an interval of appx 200 mtr along the existing alignment at safe place. These temp Bench Marks should remain intact till completion of the work.

16. **TOTAL STATION EQUIPMENT.** The total station eqpt with its accessories be provided by the contractor and will remain at site till completion of job.

17. **FOSSILS**

17.1 All fossils, coins, articles of value or antiquity, and structures and other remains or items of geological or archaeological interest found on the site shall be placed under the care and authority of the Employer. The contractor shall take reasonable precautions to prevent Contractor's Personnel or other persons from removing or damaging any these findings.

17.2 The Contractor shall, upon discovery of any such finding, promptly give notice to the Engineer-in-Charge/OC Contract, who shall issue instructions for dealing with it. If the Contractor suffers delay and/or incurs Cost from complying with the instructions, the Contractor shall give a further notice the Engineer-in-Charge/OC Contract describing in detail the delay sustained by him and cost measured by him for following the instructions of the Engineer-in-Charge/OC Contract in dealing with the fossils along with all supporting documents/proof, within 7 days of the occurrence. The Contractor then be certified for the following :-

(a) An extension of time for any such delay, if completion is or will be delayed due to such act in following the instructions of the Engineer-in-Charge/OC Contract.

(b) Payment of any such cost, which shall be included in the Contract Price.

(SPECIAL CONDITIONS CONTD...)

17.3 After receiving this further notice, the Engineer-in-Charge/OC Contract shall examine the case with facts and figures and disagreements if any will be communicated to the contractor.

17.4 In case of any disputes, the matter shall be referred to the Accepting Officer whose decision shall be final and binding.

18. **TIME AND PROGRESS CHART**

(a) The time and progress chart to be prepared as per the General Conditions of Contracts shall consist of detailed network analysis and a time schedule. The critical path network will be drawn jointly by the OC Contract and the Contractor soon after acceptance of the Tender. The time scheduling of the activities including a network for the preliminary arrangements for mobilization of resources e.g. manpower, plants and machineries will be done by the Contractor, so as to complete the work within stipulated time.

(b) On completion of the time schedule a firm calendar date schedule will be prepared and submitted by the contractor to the OC Contract who will approve if CA after due scrutiny. The schedule will be submitted in quadruplicate within six weeks from the date of handing over the site.

(c) During the currency of work, the Contractor is expected to adhere to the time schedule and this adherence will be a part of the contractor's performance under the contract. During the execution of the work, the Contractor is expected to participate in the review and updating the network undertaken by OC Contract. These reviews may be undertaken at the discretion of the OC Contract either as periodical appraisal measure or when the quantum of work ordered on the Contractor is substantially changed through deviation order or amendments. Any revision of the schedule as a result of the review will be submitted by the Contractor to the OC Contract within a week who will approve it after due scrutiny. The Contractor will adhere to the revised schedule thereafter. In case of the contractor's not agreeing to the revised schedule the same will be referred to the Accepting Officer whose decision will be final, conclusive and binding. OC's approval to the revised schedule resulting in a completion date beyond the stipulated date(s) of completion shall not automatically amount to grant of extension of time. Extension of time shall be considered and decided by the appropriate authority mentioned in condition 11 of General Conditions of Contracts and separately regulated.

(d) The Contractor is expected to mobilize and employ sufficient resources to achieve the detailed time schedule within the broad framework of the accepted methods of working and safety.

(e) No additional payment will be made to the contractor for any multiple shift work or other incentive methods contemplated by him in his work schedule even though the time schedule is approved by the department.

19. **PERMIT FROM LOCAL AUTHORITIES FOR PLYING VEHICLES.**

Contractor shall make his own arrangements for obtaining necessary permit from local authorities for plying his vehicles for the work in accordance with the Rules and Regulations of the land.

(SPECIAL CONDITIONS CONTD...)**20. ELECTRICITY AND WATER SUPPLY**

No electricity or water will be supplied by the department. The contractor shall make his own arrangement for execution of the work.

21. RATE QUOTED

21.1 Unit rate shall be deemed to include the provisions for all materials, stores, labour, process, operations and requirements detailed in particular specifications irrespective of whether these appear as specific items or not in the Schedule A.

21.2. The rate quoted shall also include transportation of materials required for completing the work including loading/unloading charges.

22. APPOINTMENT OF ARBITRATOR IN CASE OF CONTRACT AGREEMENTS TO BE EXECUTED BETWEEN BRO AND GOVT OF INDIA UNDERTAKINGS/ ENTERPRISES.

In the event of any dispute or difference between the parties hereto, such dispute of difference shall be resolved amicably by mutual consultation or through the good offices of empowered agencies of the Government. In the event of any such dispute or differences relating to the interpretation and application of the provisions of contracts where such resolution is not possible then the unresolved dispute or differences shall be referred by either party to the Arbitration of one of the Arbitrators in the department of Public Enterprises to be nominated by the Secretary to the Government of India In charge of the Bureau of Public Enterprises, and in such case the **Arbitration and Conciliation Act** shall not be applicable to the arbitration under this clause. The award of the Arbitrator shall be binding upon both the parties in the dispute. Provided, however, any party, aggrieved by such award, may make a further reference for setting aside or revision of the award to the law Secretary, Department of Legal Affairs, Ministry of Law & Justice, Govt. of India. Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary/Additional Secretary when so authorized by the Law Secretary, whose decision shall bind the parties finally and conclusively. The parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator.

23. MEASUREMENTS

Measurements pertaining to the work completed under this contract will be recorded and signed in the Measurement Book (IAFW-2261) by the Junior Engineer after taking in to account that the required laboratory tests have been done as per the frequencies laid down in the particular specifications of this contract agreement and MoRT&H specifications for Road & Bridge Work (5th revision) and connected documents thereof and test results are found satisfactory and proper records are maintained.

(a) The measurement recorded by the Junior Engineer shall be 100% checked and signed by the Engineer-in-Charge.

(b) 25% test check will be carried out by OC Contract on each day of measurement by the Engineer-in-Charge.

(c) 5% test check will be carried out by the Cdr Task Force before making payment to the Contractor.(d) The measurements should also be signed by the contractor as token of acceptance of the measurement.

(d) The measurements should also be signed by the contractor as token of acceptance of the measurement.

(SPECIAL CONDITIONS CONTD...)

(e) In case of discrepancies in arriving out work done details, the decision of the Accepting Officer will be final and binding for both the parties.

24. ACCEPTANCE OF WORK DONE

The Engineer-in-Charge shall exercise control over the quality of materials and work done by carrying out tests for the specified properties as per frequencies given in schedule "A" notes and specifications of BS code, relevant IS codes or CPWD specifications as well

as MoRT&H for Roads & Bridges latest revision may be considered. This aspect may be included in CA.

25. RE-IMBURSEMENT/REFUND ON VARIATION IN PRICES-WAGES OF LABOUR (THIS SUPERSEDES CONDITION 63 OF IAFW-2249)

(THIS SPECIAL CONDITION APPLICABLE ONLY IN CONTRACTS having ORIGINAL COMPLETION PERIOD MORE THEN 18 MONTH)

Increase or decrease in prices consequent on variation in wages of labour shall be adjusted on the basis stipulated hereinafter irrespective of the actual variation in price wages of labour to the contractor :-

LABOUR

The labour component for the work under the contract as a whole shall be taken as KL of the value of the work executed under the contract. Variation in labour wages shall be worked out by adopting the following formula:-

$$EL = \frac{KL \times Vg1}{100} \times \frac{(L1 - Lo)}{Lo}$$

Where –

- EL = Variation in wages of labour re-imbursement to be made to the contractor or refund to be made by the contractor.
- KL = Constant representing the percentage cost of labour element as compared to the total value of the work under the contract as a whole. The value of KL for the work shall **be 20 (Twenty)**.
- Vg1 = Gross value of work done at contract rates during the period of reckoning less value of work paid or payable to the contractor based on actual cost (e.g. star rate(s), work executed under prime cost sum etc) during the period of reckoning.
- L1 = Minimum wages in rupees of an unskilled adult male mazdoor as fixed under Minimum Wages Act, as on the date of commencement of the period of reckoning.
- Lo = As for L1 but the minimum wages as fixed under Minimum Wages Act in rupees of an unskilled adult male mazdoor as on the actual date of opening of priced bid (Q bid) of tender.

Note:-

1. The contract shall within reasonable time of his becoming aware of any alteration to the rate of wages of labour consequent on fixation of minimum wages under Minimum Wages Act, give written notice thereof to the OC Contract stating that the same is given pursuant to this special condition together with all information relating thereto which he may be in a position to supply.
2. Irrespective of the variations in minimum/fair wages for any category of labour; for the purpose of adjustment under this special condition, the variation in minimum wages fixed under Minimum Wages Act, for an unskilled adult mazdoor, if any, shall only form the basis.

(SPECIAL CONDITIONS CONTD...)

3. Periodicity of working out the variation in wages of labour will be three months commencing from the actual date of opening of priced bid (Q bid) of tender, the last adjustment for variation in wages of labour shall, however, be done for the period up to the stipulated date of completion given in the first work order, or extended date of completion. Valuation of price adjustment due to increase/decrease in minimum wages under Minimum Wages Act, for the purpose of making reimbursement /refund in RARs, will be timed in such a manner that relevant data required for quarterly calculation under this special condition is available from the RARs. The first price adjustment in respect of variation in wages of labour will be worked out for the relevant quarter during which the variation took place. For implementing this provision, the period of reckoning in such quarter will be divided into two period, i.e. the first period up to the RAR payable immediately after the date of variation and the other up to the end of the quarter. Value of L1 at the beginning of CA the other period shall be altered minimum wage. If there are more than one change(s) in wages in a quarter, there will be more than two periods of reckoning on similar basis. Amount payable relevant to work done for any quarter will be worked out after the minimum wages of an unskilled adult male mazdoor as fixed under Minimum Wages Act for the relevant quarter is available. Once the amount adjustable for any quarter is worked out, the same shall be adjusted in subsequent RAR as "advance on account" adjustments.

4. No adjustments in prices shall be made for any work done after the stipulated date of completion given in the first work order or extension of time granted under condition 11 of IAFW-2249 (whichever is later) for the work under this contract.

5. No adjustment, whatsoever, due to variation in wages of Labour on account of coming into force of any fresh law or statutory rule or order as provided in Condition 63 of IAFW-2249 or otherwise, than provided in this special condition shall be made. In short once this special condition is operative condition 63 of IAFW-2249 stands superseded.

6. Any dispute arising out of interpretation of application of this special condition shall be referred to the Accepting Officer whose decision shall be final and binding.

7. For purpose of calculation of retention money, liquidated damages, GST on work contracts, deduction of Income tax at source and recovery of water charges (on case of unmetered supply), the value of contract as revised by the above price variation will be taken into account.

26. RE-IMBURSEMENT/REFUND ON VARIATION IN PRICES : MATERIALS & FUEL (THIS SUPERSEDES CONDITION 63 OF IAFW-2249)

(THIS SPECIAL CONDITION APPLICABLE ONLY IN CONTRACTS having ORIGINAL COMPLETION PERIOD MORE THEN 18 MONTH)

Increase or decrease in prices of materials and fuel shall be adjusted on the basis stipulated hereinafter irrespective of the actual variation in prices (to the contractor) :-

(a) **MATERIAL** :

(i) **For cement**

The cement cost component including the cost of cement issued under Schedule 'B' in accordance with condition 10 (B) of IAFW-2249, for the contract as a whole shall be taken as KC % of the value of works executed under the contract, value of KC is given herein below :-

$$Emc = (Vmc2 - VmC1) \times \frac{(C1 - Co)}{Co}$$

$$Vmc = \frac{(Kc \times VG)}{100} + (Vsc - VBC)$$

Where :-

Emc = Variation in price of Cement to be adjusted.

(SPECIAL CONDITIONS CONTD...)

- Kc = Constant representing the percentage cost of cement, including Schedule 'B' Cement, as compared to the total value of work under the contract as a whole. The value of KC for this work shall be **25 (Twenty five)**.
- VG = Gross value of work done at contract rates upto the last date of the period of reckoning.
- Vsc = Value of all cement lying at the site for incorporation in the work including cement issued under Schedule 'B' and including cement brought and paid or payable to contractor under Prime Cost Sum and or Star Rate(s).
- VBC = Value of all cement (out of VG and VSC) issued under Schedule 'B' plus value of all Cement brought and paid or Payable to contractor under Prime Cost Sum and/or Star Rate(s).
- C1 = Whole Sale Price index for Ordinary Portland Cement cement (Base 2011-12 =100) published by the economic Advisor to the Govt of India, as on date of commencement of the period of reckoning. In case the original contract period is extended under condition-11 of IAFW-2249, the price index as applicable on the date of commencement of last period of reckoning before the original completion date shall only be applicable during the extended period.
- Co = As for C1 but the index as on the actual date of opening of Price Bid (Part 'Q') of tender.
- Vmc2 = Value of Cement upto the last date of the period of reckoning for which price variation is adjustable as worked out as per formula for VMC.
- Vmc1 = -do- but as on date of immediate preceding period of reckoning.

(ii) For steel:-

The Steel cost component including the cost of Steel issued under Schedule 'B' in accordance with condition 10 (B) of IAFW-2249, for the contract as a whole shall be taken as KS % of the value of works executed under the contract, value of KS is given herein below :-

$$EMS = (VMs2 - VMs1) \times \frac{(S1 - So)}{So}$$

$$VMs = \frac{(Ks \times VG)}{100} + (Vss - VBS)$$

Where :-

Ems = Variation in price of Steel to be adjusted.

Ks = Constant representing the percentage cost of steel, including Schedule 'B' Steel, as compared to the total value of work under the contract as a whole. The value of KS for this work shall be **27 (Twenty seven)**.

VG = Gross value of work done at contract rates upto the last date of the period of reckoning.

Vss = Value of all steel lying at the site for incorporation in the work including Steel issued under Schedule 'B' and including steel brought and paid or payable to contractor under Prime Cost Sum and or Star Rate(s).

VBS = Value of all Steel (out of VG and VSS) issued under Schedule 'B' plus value of all Steel brought and paid or Payable to contractor under Prime Cost Sum and/or Star Rate(s).

(SPECIAL CONDITIONS CONTD...)

S1 = Whole sale Price index for Steel long (Base 2011-12=100) published by the economic Advisor to the Govt of India, as on date of CA NO. CE (P) commencement of the period of reckoning. In case the original contract period is extended under condition-11 of IAFW-2249, the price index as applicable on the date of commencement of last period of reckoning before the original completion date shall only be applicable during the extended period.

So = As for S1 but the index as on the actual date of opening of Price Bid (Part 'Q') of tender.

Vms2 = Value of Steel upto the last date of the period of reckoning for which price variation is adjustable as worked out as per formula for VMs.

VMs1 = -do- but as on date of immediate preceding period of reckoning.

(iii) **Other Materials (Materials except cement and steel):** The "other materials" cost component including the cost of "other materials" issued under Schedule 'B' in accordance with condition 10 (B) of IAFW-2249, for the contract as a whole shall be taken as KM % of the value of works executed under the contract, value of KM is given herein below :-

$$EM = (VM2 - VM1) \times \frac{(W1 - Wo)}{Wo}$$

$$VM = \frac{(KM \times VG)}{100} + (Vs - VB)$$

Where :-

EM = Variation in price of "other materials" to be adjusted.

KM = Constant representing the percentage cost of "other materials", including Schedule 'B' "other materials", as compared to the total value of work under the contract as a whole. The value of KM for this work shall be **10 (Ten).**

VG = Gross value of work done at contract rates up to the last date of the period of reckoning.

Vs = Value of all "other materials" lying at the site for incorporation in the work including "other materials" issued under Schedule 'B' and including "other materials" brought and paid or payable to contractor under Prime Cost Sum and or Star Rate(s).

VB = Value of all "other materials" (out of VG and VS) issued under Schedule 'B' plus value of all "other materials" brought and paid or Payable to contractor under Prime Cost Sum and/or Star Rate(s).

W1 = Whole sale Price index for all commodities (Base 2011-12 =100) published by the economic Advisor to the Govt of India, as on date of commencement of the period of reckoning. In case the original contract period is extended under condition-11 of IAFW-2249, the price index as applicable on the

(SPECIAL CONDITIONS CONTD...)

date of commencement of last period of reckoning before the original completion date shall only be applicable during the extended period.

Wo = As for W1 but the index as on the actual date of opening of Price Bid (Part 'Q') of tender.

Vm2 = Value of "other materials" up to the last date of the period of reckoning for which price variation is adjustable as worked out as per formula for VM.

Vm1 = -do- but as on date of immediate preceding period of reckoning.

(b) **FUEL** : Fuel cost component for the contract as a whole shall be taken as KP% of the value of work executed under the contract. Value of KP given herein below :-

$$Ep = \frac{Kp \times VG1}{100} \times \frac{(F1 - Fo)}{Fo}$$

Where :-

Ep = Variation in price of fuel to be adjusted.

Kp = Constant representing the percentage of cost of fuel as compared to the total value of work under the contract as a whole. The value of KP for this work shall be **03 (Three)**.

VG1 = Gross value of work done during the period of reckoning, using value of Vg for calculating VM1 and VM2 under (a) above.

F1 = Whole sale price index for fuel & Power (base 2011-12 = 100) published by Economic Adviser to Government of India as on the date of commencement of the period of reckoning.

Fo = As for F1 but the index as on the actual date of opening of Price Bid (Part 'Q') of tender.

NOTES :-

1. No adjustments, whatsoever, due to variation in prices of materials and fuel on account of coming into force of any fresh law or statutory rule or order as provided in condition 63 of IAFW-2249 or otherwise than provided in this condition shall made. In short, once this special condition is operative condition 63 of IAFW-2249 stands superseded.

2. No adjustment in prices shall be made for any work done with materials brought at site after the stipulated date of completion given in work order No. 1 or extension of time granted under condition 11 of IAFW-2249 (whichever is later) for the work under the contract.

3. Periodicity of working out the variations will be at three months commencing from the actual date of opening of price Bid (Part 'Q') of the tender. The last calculation shall however be done for the value of work at contract rates and materials lying at site for

(SPECIAL CONDITIONS CONTD...)

incorporation in the work as on date of completion or extension thereof as mentioned in Note 2 above. Valuation of RARs is to be timed in such a manner that relevant data required for quarterly calculation under this condition is available from RARs. Amount payable relevant to work done and materials collected in any quarter will be worked out after final wholesale price indices for the relevant quarter are available. Once the amount adjustable for any quarter is worked out the same shall be adjusted as and alongwith advance on account payment under condition 64 of IAFW-2249 in the subsequent RAR (s).

4. Any dispute arising out of interpretation of application of this special condition shall be referred to the Accepting Officer whose decision shall be final and binding.

5. For purpose of calculation of retention money, liquidated damages, GST on works contracts, deduction of income tax at source and recovery of water charges (in case of unmetered supply) the value of contract as revised by the above price variation will be taken into account.

27. RECORD/CONSUMPTION OF MAJOR CONSTRUCTION STORES / MATERIALS

(a) (i) For the purpose of keeping a record of Major Construction Stores like **Cement, Steel and Paint** consumed in works, the contractor shall maintain a pucca bound register in the form approved by the Engineer-in-Charge/OC Contract showing daily quantity used in works. The register shall be signed daily by the contractor's representative and the Engineer-in-Charge/OC Contract in token of their verification of its correctness. The check will not, however, absolve the contractor of his responsibility to justify the consumption of cement, steel & paint at the time of finalization of his work.

(ii) The register shall be kept at site in the safe custody of the contractor during progress of the work and shall, on demand, be produced for verification of inspecting officers.

(b) (i) The quantity of materials such as **cement, steel & paint** and the like, as directed by the Engineer-in-Charge (the quantity of which cannot be checked after incorporation in the works), shall be recorded in the register and signed by the contractor and the Engineer-in-Charge as a check to ensure that the required quantity has been brought to site for incorporation in the work.

(ii) Materials brought to site shall be stored as directed by the Engineer-in-Charge in Register and shall be suitably marked for identification.

(iii) The contractor shall, on demand produce the OC original receipted vouchers in respect of the supplies. Vouchers so produced shall be verified and stamped by Engineer-in-Charge indicating contract number. The contractor shall ensure that the materials are brought to site in original sealed containers/packing, bearing manufacturer's marking except in the case of the requirement of materials(s) being less than smallest packing.

(iv) Contractor shall produce original vouchers from the manufactures and/ or their authorized agents for the full quantity of the following materials, as applicable as

(SPECIAL CONDITIONS CONTD...)

a prerequisite before submitting for payment for any advances on account of the work done and/or materials collected in accordance with condition 64 of General Condition of Contracts IAFW-2249.

- (a) Cement.
- (b) Steel items.
- (c) Paint

28. PAYMENT

Payment of RAR/Final bill will be made based on the rate quoted in Schedule "A" to the Contractor after Standard Deductions (Security deposit/Retention money/Performance Guarantee) as applicable. The retention money will be cleared in the final bill and security deposit/performance guarantee will be released on production of No claim/No demand certificate from the Contractor and OC Contract respectively duly verified by AO TF after payment of Final Bill. Payment to the parties will be made in INR in the following manner:-

- (a) No advance payment will be made to the contractor against any material if not properly safeguarded against loss / damage due to natural calamities / theft. Condition 64 of IAFW 2249 shall be deemed amended to this extent.
- (b) No payment shall be made for any rejected work.
- (c) Taxes applicable (Income tax, **GST** on works contracts, labour cess etc) shall be deducted at source from the payment due to contractors as per prevailing laws / statutory orders and TDS certificate shall be issued to the contractor.
- (d) All payments will be made by e-payment/account payee cheque.
- (e) Condition 64 of GCC 2249 may also be referred.

29. CO-OPERATION WITH OTHER AGENCIES

The contractor shall permit free access and generally afforded reasonable facilities to other agencies or departmentally workmen engaged by the Govt to carry out their part of the work, is any, under separate arrangements.

30. SUPPLY OF COLOUR RECORD PHOTOGRAPHS, ALBUMS AND VIDEO CDs

Contractor shall provide/supply of colour record photographs, Album and video CDs at various stages/facts of the work without any extra cost as per clause 121 of MoRT&H specification for road and bridge works (Fifth Revision).

31. **FIELD LABORATORY**: To maintain proper quality control at site, contractor shall establish adequately equipped field laboratory without any extra cost.

32. TRAFFIC MOVEMENT

Contractor shall ensure that no hindrance to traffic movement shall occur during construction. However, if the traffic movement disrupt due to land slide or any other unforeseen reason, then contractor shall make all efforts to restore traffic movement within time as directed by the OC Contract/Engineer-in-Charge. If contractor is unable or willing to restore traffic movement, Engineer-in-Charge may take action as per condition 8 of IAFW-2249. Contractor shall immediately intimate regarding closure of the road to Engineer-in-Charge and local administrative authorities.

(SPECIAL CONDITIONS CONTD...)**33. VENUE OF ARBITRATION: Place of arbitration hearing shall be as per decision of Arbitrator.****34. DEFECT LIABILITY PERIOD** (Refer Condition 46 of IAFW 2249).

34.1 Defect Liability period shall be **thirty six calendar months** irrespective of what is specified in Condition 46 of IAFW 2249. Performance Guarantee of 5% of contract sum as submitted in terms of Condition 19 of IAFW-2249 shall be retained till expiry of defect liability period and shall be refunded to the contractor after the expiration of defect liability period provided always that the contractor shall first have been paid the final bill and have rendered a No-demand certificate (IAFA-451) in terms of condition 68 of IAFW-2249.

34.2 Provided further, the Contractor may be paid Special Security Deposit on his furnishing Guarantee Bond(s) or Fixed Deposit Receipt(s) from a Scheduled Bank in favour of Chief Engineer for the amount of the Special Security Deposit which should otherwise be recoverable from him under the contract.

34.3 The Guarantee Bond(s) or Fixed Deposit Receipt(s) shall be executed for a period and on a form as directed by the Chief Engineer. The Contractor shall further arrange to extend the period of Guarantee Bond(s) or Fixed Deposit Receipt(s) or shall furnish a fresh Guarantee Bond(s) or Fixed Deposit Receipt(s) of similar value so as to cover the period as stated above for its refund.

34.4 Special Security Deposit shall be in addition to security deposit specified in condition 22 of IAFW-2249.

35. REGISTRATION FEE, TRADE TAX, INCOME TAX ETC

Tendered lump sum shall also be deemed to include the payment of all taxes like Registration fee, Trade Tax, Income Tax and other taxes/levies to be paid to the state Govt. or Central Govt. already in force and as may be modified from time to time. The contractor may ascertain full details in this respect from the concerned department(s).

36. DEDUCTION OF TAX AT SOURCE

Indian Income tax as applicable and BCT @ 3% will be deducted at source from Indian contractor, the TDS will be applicable as per Article 22 of DTAA between Royal Govt. of Bhutan and the Govt. of India (Authy: DRC-TAX/DTAA-INDIA/1608 dt 03.12.2015). BCT @ 2% will be deducted at source from Bhutanese contractor.

37. COMPLETION DRAWINGS

The contractor shall submit to the OC Contract within 2 months of completion but before final payment, completion drawings (accurate and correct in all respects), in bound copies, 3 sets of prints and one polyester film of quality to be approved by T.F.C.

38. CONCILIATION

1. Conciliation shall be conducted as laid down u/s 61 to 81 of Arbitration and Conciliation Act 1996 (Part III) unless specified otherwise here-in-after.

1.1.1 The scope of conciliation shall be restricted to the following types of disputes with financial limits as indicated therein:-

- (a) Disputes relating to levy of compensation for delay in completion, actual amount of compensation.
- (b) Disputes relating to technical examination of works.
- (c) Disputes relating to interpretation of the provisions of the contract with reference to their application to parties.
- (d) Disputes relating to non return of Schedule 'B' stores over-issued to contractor.
- (e) Disputes relating to assessment of loss/damage occurred in executed work only (and not for contractor's material & V/E/P) due to natural calamities.
- (f) Any other disputes having fair chances of being resolved by conciliation and considered fit to be conciliation by the parties.

1.2 COMMENCEMENT OF CONCILIATION PROCEEDINGS

1.2.1 The party initiating conciliation shall send to the other party a written invitation to conciliate, briefly identifying the subject of the dispute.

1.2.2 Conciliation proceedings shall commence when the other party accepts in writing the invitation to conciliate.

1.3 Number of Conciliators

1.31 There shall be a sole conciliator.

1.4 Appointment of Conciliator

1.4.1 All disputes brought out in Para 1.1.1 (a) to (f) above shall be referred to the Sole Conciliator viz Serving Officer not below the rank of Superintending Engineer having degree in Engineering or equivalent to be appointed by the concerned ADGBR or in his absence the Officer Officiating as ADGBR specifically delegated by the ADGBR in writing.

1.5 STATUS OF EFFECT OF SETTLEMENT AGREEMENT

1.5.1 The settlement agreement signed by the parties as a result of conciliation proceedings shall have the same status and effect as it is an arbitral award on agreed terms.

39. OPERATION AND MAINTENANCE INSTRUCTIONS

The contractor shall submit to the OC Contract within 2 months of actual completion, but before final payment, operation and maintenance instructions for whole of the building, in quadruplicate (bound copies).

(SPECIAL CONDITIONS CONTD...)**40. BILLING SCHEDULE**

The pricing schedule for interim payments will be drawn up and finalized mutually between Accepting Officer and the contractor after the acceptance of the contract. The decision of the Accepting Officer shall be final and binding.

41. SUPPLY OF RAILWAY WAGONS

(a) The contractor shall himself be solely responsible for obtaining Railway Wagons for the movement of material for the works. In the event of contractor being unable to obtain Railway Wagons through his resource, he may apply in writing to the OC Contract, who may afford help to the extent he deems fit, for obtaining from the Railway authorities such wagons and priorities thereof, as may be necessary for transport of materials.

(b) It should be noted that this condition does not amount to any guarantee, express or implied, that the contractor shall be provided wagons or priorities thereof. The Government shall not be held liable in case no wagons or priorities are allotted.

(c) The contractor shall have the wagons consigned to the OC Contract or to any other Government official nominated by the OC Contract for the purpose. The OC Contract shall have the Railway receipts endorsed in favour of the contractor and the Railway freight shall be paid in cash by the contractor to the Railway authorities. Although the wagons may be consigned to the OC Contract or any other official nominated by him, the contractor shall still be responsible for any undercharges on Railway freight, for the carriage loading/unloading of the materials at both the ends and for payment of any penalty for not utilizing the allotted wagons as also for any demurrage, wharf age etc. If as a result of the OC Contract or any other Government Official named as the consignee, the OC Contract is required to pay the Railway any charges mentioned hereinbefore such charges shall be recovered from the payments being made to the contractor as "Advance on Account" or any other amounts which may become due to the contractor.

(d) The materials shall be at the risk of the contractor during transit and during loading/unloading and also while being stored or stacked. Government will not be held responsible for any losses that may occur at any time.

(e) The Contractor shall have no claim whatsoever for compensation, damages, extension of time, etc, against Government on account of non allotment, delay in allotment or allotment of any insufficient number of wagons.

(f) The assistance given by the OC Contract in arranging for the provision of Railway Wagons under the above conditions shall not be held to confer any additional right on the contractor or create any liability for Government which is not contemplated under any other conditions of this contract.

(g) The Contractor shall not use the wagons to be provided under the above arrangement for any purpose other than the transportation of materials required for the work under this contract.

(SPECIAL CONDITIONS CONTD...)**42. LOSS OR DAMAGE ON ACCOUNT OF ENEMY ACTION**

(a) If as a result of enemy action, the contractor suffers any loss or damage, the Government shall reimburse to the contractor such loss or damage, to the extent and in the manner hereinafter provided: -

(i) The loss suffered by him on account of any damage or destruction of his plant/equipment (as defined in condition 14 (b) above) or materials or any part of parts thereof. The amount of loss assessed by the Accepting Officer of the contract on this account shall be final and binding.

(ii) Compensation paid by him under any law for the time being in force to any workmen employed by him for any injury caused to him or the workmen's legal successors for loss of the workmen's life.

(b) No reimbursement shall be made nor shall any compensation be payable under the above provisions unless the contractor had taken Air Defence precautions ordered in writing by OC concerned or in the absence of such orders, reasonable precautions. No reimbursement shall be made nor shall any compensation be payable for any plant/equipment or materials not lying on the site of work at the time of enemy action.

43. ARBITRATION (Refer Clause 70 of Condition of contract of IAFW-2249)

All disputes or differences arising as aforementioned, other than those for which the decision of the Accepting Officer or any other person is by the contract expressed to be final and binding shall be referred to sole arbitrator under condition No 70 of General Conditions of Contracts IAFW-2249 after written notice by either party of the contract to the other of them.

44. LEGAL JURISDICTION: Legal jurisdiction for this contract agreement shall be "Courts at Guwahati /Siliguri/Kolkata in the State of Assam/West Bengal".

45. MANDATORY REQUIREMENT FOR MAKING PAYMENTS: E-PAYMENT THROUGH NEFT/RTGS/ECS/EBS (THIS SUPERSEDES CONDITION 66 OF GENERAL CONDITIONS OF CONTRACT OF IAFW-2249.

All payment will be made through E-payment and hence tenderers must furnish NEFT Form duly signed by the Bank Authorities.

NEFT / RTGS MANDATE FORM

1.	Name of Firm / contractor as per account in the Bank	
2.	Beneficiary's Account Number (As appearing on the Cheque Book)	
3.	Name of Bank where a/c is held	
4.	Name of Branch	
5.	Address of Branch	
6.	Telephone No. of Branch	
7.	IFSC Code of Branch	
8.	9-digit MICR Code Number of the Bank & Branch	
9.	E-mail ID of Contractor	

Note:- Please attach a blank cancelled cheque for verification of the above particulars.

(SPECIAL CONDITIONS CONTD...)

I, hereby, declare that the particulars given above are correct and complete. If the transaction is delayed or not effected due to incomplete or incorrect information of the bank details, I will not hold the payment releasing authority responsible for it.

dated:

Signature of the Contractor (Seal)

CERTIFICATE BY BANK

Certified that the particulars furnished above are correct as per our records.

Seal of Bank

(Signature of the branch manager of the Bank)

Dated :

(SPECIAL CONDITIONS CONTD...)**Annexure-I to special conditions****FORMAT FOR BANK GUARANTEE FOR ADVANCE PAYMENT**

From:

Bank_____

To

The President of India

Sir,

1. With reference to contract Agreement No_____ concluded between the president of India, hereinafter referred to as "The Government" and M/S_____ hereinafter referred to as the "the contractor" for _____ as detailed in the above contract agreement hereinafter referred to as "the said contract" and in consideration of the Government having agreed to make an advance payment in accordance with the terms of the said contract to the said contractor, we the _____ bank, hereinafter call 'the Bank' hereby irrevocably undertake and guarantee to you that if the said contractor would fail to provide works in accordance with the terms & conditions of the said contract for any reason whatsoever or fail to perform the said contract in any respect or should whole or part of the said on account payments at any time become repayable to you for any reason whatsoever, we shall, on demand and without demur pay to you all and any sum up to a maximum of Rs._____(Rupees _____ only) paid as advance to the Contractor in accordance with the provisions contained in clause_____ of the said contract.

2. We further agree that the Government shall be the sole judge as to whether the contract has failed to provide works in accordance with the terms & conditions of the said contract or has failed to perform the said contract in any respect or the whole or part of the advance payment made to contractor has become repayable to the Government and to the extent and monetary consequences thereof by the Government.

3 We further hereby undertake to pay the amount due and payable under this Guarantee without any demur merely on a demand from the Government stating the amount claimed. Any such demand made on the Bank shall be conclusive and binding upon us as regards the amounts due and payable by us under this Guarantee and without demur, However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs_____ Rupees _____ only).

4. We further agree that the Guarantee herein contained shall remain in full force and effect for a period upto_____(03 months+due date of recovery of advance) unless the Government in his sole discretion discharges the Guarantee earlier.

5. We further agree that any change in the constitution of the Bank or the constitution of the contractor shall not discharge our liability hereunder.

6. We further agree that the Government shall have that fullest liberty without affecting in any way our obligations hereunder with or without our consent or knowledge to vary any of the terms and conditions of the said contract or extend the time of development/delivery from time to time or to post pone for any time or from time to time any of the powers exercisable by the Government against the contractor and either to forebear or enforce any of the terms and conditions relating to the said contract and we shall not be relieved from our liability by reason of any such variation or any indulgence or for bearance shown or any

Signature of Contractor

For Accepting Officer

(SPECIAL CONDITIONS CONTD...)

act omission on the Government or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of so relieving us.

7. We lastly undertake not to revoke the Guarantee during the currency of the above said contract except with the prior consent of the Government in writing.

Yours faithfully,

For _____ Bank
(Authorised Attorney)

Place: _____

Date : _____

Seal of Bank

(SPECIAL CONDITIONS CONTD...)**46 SPECIAL TOOLS AND PLANTS :**

46.1 The tenderer shall install/commission the following special machinery/equipments/tools/ plants at work site for execution of work:-

- (a) Batch concrete mixture.
- (b) Concrete spreaders.
- (c) Forms : Straight site forms shall be of sufficient thickness to maintain the true cross section of the forms and shall be furnished in sections not less than 3 mtr in length.
- (d) Vibrators screed board, concrete vibrators, immersion vibrators.
- (e) **Hand tools** : Transverse groover, pan protection, push brooms, 3 mtr straight edge, edging tool and master straight edge.
- (f) Minimum one No mechanical excavators like JCB or other make.

MATERIALS AND THEIR TESTS

Sl No	Material	Tests	Method of testing	Frequency of tests		
1.	Bricks	(i) Compressive strength	IS-3495 (Part-II)	As per IS 5454 as given under		
		(ii) Water absorption	-do-	Lot size	Sample size	Permissible No of defective bricks
		(iii) Efflorescence	-do- (Part-I)	1001 to 10000	5	0
				10001 to 35000	10	0
				35001 to 50000	15	1
2.	Coarse Aggregate	(i) Sieve analysis	IS-2386 (Part-I)	One test of every 15 Cubic Metre of aggregates or part three of brought to site		
		(ii) Flakiness Index	-do-	-do-		
		(iii) Estimation of deleterious materials	IS-2386 (Part-I)	One test for every 100 Cubic Meter of aggregates or part there of		
		(iv) Organic impurities	-do-	One test per source of supply		
		(v) Moisture content	-do- (Part-II)	Regularly as required		
		(vi) Specific gravity	-do-	One test for each source of supply		

(SPECIAL CONDITIONS CONTD...)

3.	Fine Aggregate	(i) Sieve analysis (ii) Test for clay, silt and impurities (iii) Specific gravity (iv) Moisture content (v) Test for organic impurities	IS-2386 (Part-I) -do- (Part-II) -do- (Part-II) -do- (Part-II) -do- (Part-II)	One test of every 15 Cubic Meter of FA or part when brought to site -do- One for each source of supply Regularly as required subject to 2 tests/day when being used One for each source of supply
4.	Cement	(i) Setting Time	IS-4031-63 affirmed 1980	One for each consignment or as and when required
		(ii) Soundness	-do-	-do-
		(iii) Compressive strength	-do-	-do-
		(iv) Fineness	-do-	-do-
5.	Structural Concrete (M-15 Grade & above)	(i) Slump test (OR) compacting factor test (OR) Vee-Bee time (ii) Compressive strength	IS-1199 IS-516	The minimum frequency of sampling of concrete of each grade shall be as under :- Qty of concrete in the work (Cubic Meter) 1 – 5 1 6 – 15 2 16 – 30 3 31 – 50 4 51 and above 4+1 for each addl 50 Cubic Meter or part thereof
6.	(a) PCC block for walling (Hollow Block)	(i) Compressive strength (ii) Water absorption (iii) Density	IS-2156-1984 -do- -do-	08 Blocks out of 14 03 Blocks out of 14 03 Blocks out of 14
	(b) PCC solid block for walling	(i) Compressive strength (ii) Water absorption (iii) Density	IS-2185 -do- -do-	12 Blocks out of 18 03 Blocks out of 18 03 Blocks out of 18

(SPECIAL CONDITIONS CONTD...)

7.	Cement Flooring Tiles/ Terrazzo tiles	(i) Water absorption	IS-1237	06 tiles out of 18
		(ii) Wet transverse strength	-do-	-do-
		(iii) Resistance to wear	-do-	-do-
8.	Timber	(i) Specific gravity and weight	IS-1708	Minimum '3' samples from a lot of 4 Cum or 250 pieces of seasoned timber
		(ii) Moisture content	-do-	-do-
9.	Water for Construction purpose	(i) Test of Acidity	IS-456 & 3015	Once at the stage of approval of source of water
		(ii) Test for Alkalinity	-do-	-do-
		(iii) Test for solid content	-do-	-do-
10.	Welding of steel work	Visual inspection test	IS-822 Clause 7.1	100% by visual inspection

47. DESIGN AND DRAWINGS

47.1 The basic plan which is enclosed with this tender document shall be same. Design and drawing of the building including Pre-Engineered Steel building shall be part of the work and proof check shall be carried out from IIT/NIT. The design and drawing shall be submitted to the OC Contract for approval by Commander Contract for approval before starting of work.

47.2 The Contractor shall submit plan and drawings of electrical fittings, sanitary/plumbing works, sewage disposal and area drainage before commencement of work to OC Contract for approval.

47.3 The Contractor shall also get architectural drawings prepared of building before commencement of work and submitted to OC Contract for approval by CE(P) Dantak.

47.4 The clear height of auditorium shall be provided 8.00 mtr (Eight) from floor level to bottom of ceiling. Refer enclosed layout drawing all other dimensions.

48. DOORS & WINDOWS

48.1 Doors & windows shall be fixed as per basic plan which is enclosed with this tender document.

PARTICULAR SPECIFICATIONS

NAME OF WORK: "DESIGN AND CONSTRUCTION OF AUDITORIUM PORTAL STRUCTURE AS PER BHUTANESE DESIGN WITH VERANDAH OF SIZE 36.00 X 17.60 MTR USING PEB TECHNOLOGY AND ALLIED WORKS, PROVIDING AND ERECTION OF PREFABRICATED SHELTER OF SIZE 16.581 MTRX 7.541 MTRX2.7 MTR HEIGHT WITH VERANDAH 1.5 MTR FOR SIGNAL SECTION INCLUDING ALLIED WORK, PROVIDING AND ERECTION OF PREFABRICATED SHELTER OF SIZE 14.64 MTR X 6.10 MTR X 2.7 MTR HEIGHT WITH VERANDAH PROJECTION OF 4X 3 MTR FOR QTR GUARD AND ALLIED WORKS AND DISMANTLING OF EXISTING BUILDING (QTR GUARD,SIGNAL SECTION & STORES CUM GEN SET ROOM) AT HQ CE(P) DANTAK UNDER 102 RCC/19 BRTF PROJECT DANTAK INSIDE BHUTAN: JOB NO.60/344".

1. GENERAL:-

1.1 The work required to be carried out under this contract broadly comprises of the following:-

- (a) Setting out bench marks, laying out the accommodation layout as per drawings on ground and getting it approved from the OC Contract.
- (b) Excavation of foundation upto the given foundation level, in situ test and laboratory test of foundation strata to ascertain suitability of strata to place foundation.
- (c) Construction of the buildings as per the approved design and drawings and as per specifications mentioned hereinafter.
- (d) Site clearance.
- (e) The lump sum quoted cost shall be deemed to include all costs towards all preparatory work or any other work not specifically list but required for successful completion of the project.

2. LOCATION:- AT CE(P) Dantak, Thimphu, Bhutan

2.1 The scope of project is as under :-

S/No	Description of Work
01	Design and construction of auditorium portal structure as per Bhutanese design with verandah of size 36.00 x 17.60 mtr using PEB technology including sound system and allied works as per layout plan attd.
02	Providing and Erection of Prefabricated shelter of size 16.581 mtr x 7.541 mtr x 2.7 mtr height with verandah 1.5 mtr projection for signal section and allied works as per layout plan attd.
03	Providing and Erection of Prefabricated shelter of size 14.64 mtr x 6.10 mtr x 2.7 mtr height with verandah projection of 4x 3 mtr for qtr guard and allied works as per layout plan attd.
04	Dismantling of existing building (Signal Section, Qtr Guard & Stores cum Gen set room) at HQ CE(P) Dantak.
05	Misc works like R/wall, Drains, Steps, Hand rails, etc. as per layout plan attd. Marking of Lawn Tennis court of size 23.77 mtrx10.97 mtr, Badminton court of size 13.40 mtr x 6.10 mtr and Basket ball court of size 28.70 mtr x 15.20 mtr and supply of quality moveable basket ball hoop and detachable post and net for lawn tennis.

2 (Key plan of proposed auditorium and allied work are enclosed with tender documents).

3. **Project**

3.1 The proposed Auditorium project should be a show window of the national capabilities and importance accorded to Bhutan. Specifications adopted are thus superior and not covered Bhutan Schedule of Rates (BSR). The structural works including plastering can be factored in terms of BSR, however, the internal finishes, flooring, built in furniture, electrical fittings, sanitary fittings, etc. cannot be executed within the provisions of Plinth Area Rates of BSR. Broad specifications of the structures as per drawings are highlighted in succeeding paragraphs.

3.2 **Structural Work.** The construction of Auditorium has been proposed with portal steel structure with verandah as specified in layout plan. The special provisions made for different blocks are highlighted below:-

(3.2.1)**Auditorium.** The auditorium of size 36 mtrx 17.60 mtr (as per lay out plan) is to be constructed with Universal beam structure column and RHS roof truss as per design. Foundation is with PCC 1:4:8 bed with RRM 1:6 for foundation and basement. Roofing with Aluminium profile sheet 0.63 mm thick, RHS portal steel framing wall with ACP sheet paneling paneling on exterior wall with ACP panels surface treated PVDF coated , 5mm thick(Item code No.147412786) and acoustic wall paneling in interior with Pine wood acoustic wall appearance modern, light weight, termite and water resistant (Item code No.30559312), brick work up to 1.2 mtr ht from floor level, wooden cladding with teak wood cladding 12 mm thick , surface finishing brushed natural, finish type Matte (Item code No.56231594), false ceiling with Acoustic 'T' grid ceiling tile of size 2ftx2ft. Walls at rear portion are to be constructed with brick masonry and cement board ceiling on eve projection has been proposed. Maple wood flooring over PCC 1:3:6 on auditorium, stage, green room and a provision for ceramic tiles on walls and verified/nonskid tiles on floor of wash room areas has been provisioned. Fixing of Acoustic design doors with double shutter decorative & polished size 7ftx4ft. PVC accordion doors colour brown (Item code No.134291504) for toilet and green room. Provision of UPVC top Hung window size (Item code No.62924736), UPVC window sliding type (Item Code No- UPVC-05). Provision of non skid out door concrete chequered floor tiles, 25 mm thick. Provision of Auditorium sound system 8xElectro Voice ELx200 15P wall mound loudspeakers , 2xsubwoofer, 3xAmplifiers, Monitors, Misc, Stands and mixer SKU:ELX-LX200AUDBN. Marking of Lawn Tennis court of size 23.77 mtrx10.97 mtr, Badminton court of size 13.40 mtr x 6.10 mtr and Basket ball court of size 28.70 mtr x 15.20 mtr and supply of quality moveable basket ball hoop and detachable post and net for lawn tennis.

(3.2.2)**Signal section.** This building of size 16.581 mtrx 7.541 mtrx 2.7 mtr ht (as per drawing attd) is to be constructed with Prefabricated shelter. The foundation bed with PCC 1:4:8 and foundation and basement is with RRM 1:6. Provision of CGI sheet roofing, ceramic tiles on walls, verified/nonskid tiles on floors. Provision of fixing of glass wall on verandah and Provision of non skid out door concrete chequered floor tiles, 25 mm thick.

(3.2.3)**Qtr Guard.** This building of size 14.64 mtrx 6.10 mtrx 2.7 mtr ht (as per drawing attd) is to be constructed with Prefabricated shelter. The foundation bed with PCC 1:4:8 and foundation and basement is with RRM 1:6. Provision of CGI sheet roofing, ceramic tiles on walls, verified/nonskid tiles on floors. Provision of fixing of glass wall on verandah and Provision of non skid out door concrete chequered floor tiles, 25 mm thick.

(3.2.4) **Dismantling of existing building (Signal section, Qtr Guard & Stores cum Genset room) at HQ CE(P) Dantak.** This existing structures for an area of 121.48 Sqm (as per given drawing) is to be dismantled

(3.2.5) **Misc works like R/wall, Drains, Steps, Hand rails, etc. as per layout plan attd. Marking of Lawn Tennis court of size 23.77 mtrx10.97 mtr, Badminton court of size 13.40 mtr x 6.10 mtr and Basket ball court of size 28.70 mtr x 15.20 mtr and supply of quality moveable basket ball hoop and detachable post and net for lawn tennis.**

3.3 **Traditional cornices** Bhutan traditional cornices provisioned as per Part I to Part VII and Annex I to Part I are to be strictly adhered as Bhutanese standard. Thermo Mechanically treated reinforcement bar Yield strength 500 MPa, Phana, Lintel cornices are to be provisioned as per Drawings and designs.

3.4 **Windows & Doors** All Doors and Windows shall includes providing and fixing each for Bhutan type architecture feature as per specifications.

4. **CEMENT CONCRETE**

4.1 Cement, fine aggregates, coarse aggregates, mineral admixtures and water constitute the main material ingredients of concrete. Concrete shall be designated by type and its grade designation based on characteristic strength as described in Table 6.4 of Clause 6.4.1 of IRC:112-2011. All concrete to be used shall be standard concrete or high performance concrete and the design mix shall be established by laboratory /field testing and controlled at site by conducting tests to confirm suitability of constituent materials, as per the relevant codes mentioned in Clause 18.4 of IRC:112-2011. The Concrete shall meet the acceptance criteria as per clause 18.6 of IRC:112-2011. Mix design shall be modified if it does not meet the acceptance criteria. All controlled concrete works shall be done by **weigh batching** in all stages of work. All concrete shall be prepared mechanically and transported through Transit mixer (T M). Manual mixing / transportation of concrete is not allowed.

4.2 The minimum clear cover to the reinforcement bar closes to the concrete surface shall be 50 mm or as specified in the Drawings. Use of concrete cover blocks to maintain the cover is required. Cladding or any of the supplementary protective measures shall be adopted as considered adequate.

4.3 The total water soluble sulphate content the concrete mix expressed as SO₃ shall not exceed 4% mass of cement used in the mix.

4.4 Total chloride content in concrete shall not exceed 0.1% of the mass of cement used.

4.5 Contractor shall submit a concrete mix design as per IS:10262, based on the material available/ proposed to be used, to achieve the specified strength of design mix concrete, to the OC Contract for approval. OC Contract will satisfy himself about the efficiency of design mix concrete and approve the same. Contractor will provide all facilities and materials required for the same at no extra cost to the department.

4.6 All Form work and false work shall be properly designed in accordance with IRC: 87-1999. The staging and shuttering scheme will be got approved from the OC contract before execution.

4.7 Form Vibrators shall be used in addition to internal vibrators.

4.8 For curing of concrete; procedures as laid down in MoRT&H Specifications for Roads and Bridge Works (Fifth Revision) shall be followed.

5. **CONSTRUCTION JOINTS**

5.1 Construction Joints shall be kept to the minimum and modern slip form methods shall be adopted. No construction joints shall be provided in the splash zone.

5.2 Construction joints should be positioned to minimize the effects of the discontinuity on the durability, structural integrity, and appearance of the structure. As far as possible joints should be positioned in non-aggressive zones, but if aggressive zones can't be avoided, joints should be accessible for preparation and concreting. The preparation of the joints is more likely to be satisfactory where the cross-section is relatively small, and where reinforcement is not congested. As far as possible, joints for fair-faced concrete should be located where they conform with the architectural features of the construction. Unless they are marked in this way, the positions of the joints are always obvious, even when the concrete is given a textured finish. If substantial changes in the cross-section of a member are necessary, the joints should be formed where they minimize stresses caused by temperature gradients and shrinkages. Joints should be located away from regions of maximum stress caused by loading, particularly where shear and bond stress are high. In beams and slabs, therefore, joints should not generally be near the supports. Construction joints between slabs and ribs in composite beams should be avoided.

5.3 The minimum number of joints should be used and their construction should be simple. They should be either horizontal or vertical, because concreting sloping surface is usually, unsatisfactory. Where concrete is placed in vertical members e.g. walls, columns and the like, lifts of concrete shall finish level or in slopping members, at right angles to the axis of the member, the joint lines matching the features of the finished work. Concreting shall be carried out continuously up to the construction joints laitance bolt on the horizontal and vertical surfaces of the concrete should be removed before fresh concrete is cast. The surface should be roughened to promote good adhesive. Various methods for removal can be used, but they should not dislodge the coarse aggregate particles. Concrete may be brushed with a stiff brush soon after casting while the concrete is still fresh and while it has hardened, it may be treated by wire brushing or with a high pressure water jet followed by drying with an air jet, immediately before the new concrete is placed. Fully hardened concrete should be treated with mechanical hand tools or grit blasting, taking care not to split or crack soft aggregate particles. The best time for treating the joints is a matter of judgment because it depends on the rate of setting and hardening (which is itself dependent on the temperature of the concrete). Before further concrete is cast, the surface should be thoroughly cleaned to remove debris and accumulated rubbish, one effective method being by air jet. Whether there is likely to be even a short delay before placing the next concrete lift, protruding reinforcement should be protected. Before the next lift is placed, rust, loose mortar, or other conditions are particularly aggressive and there has been a substantial delay between lifts, the concrete should be cut back to expose the bars for a length of about 50 mm to ensure that contaminated concrete is removed. In all cases, when construction joint surface is not contaminated with release agents, dust or curing membrane and that the reinforcement is fixed firmly in position at the correct cover.

5.4 When the form work is fixed for the next lift, it should be inspected to ensure that no leakage occurs from the fresh concrete. The practice of first placing a layer of mortar or grout when concreting joints is not recommended. The old surface should be soaked with water, without leaving puddles immediately before starting concreting, then the new

concrete should be thoroughly compacted against it. When fresh concrete is cast against existing mature concrete or masonry, the old surfaces should be thoroughly cleaned and soaked to prevent the absorption of water from the new concrete. Standing water should be removed shortly before the new concrete is placed and the new concrete should be thoroughly vibrated in the region of the joint.

6. **Brick Masonry**

6.1 This work shall consist of construction of structures with bricks jointed together by cement mortar in accordance with the details shown on the drawings or as approved by the Engineer. Cement and sand shall be mixed in specified proportions given in the drawings. Cement shall be proportioned by weight, taking the unit weight of cement as 1.44 tone per cubic meter. Sand shall be proportioned by volume taking into account due allowance for bulking. All mortar shall be mixed with a minimum quantity of water to produce desired workability consistent with maximum density of mortar. The mix shall be clean and free from injurious type of soil/acid/alkali/organic matter or deleterious substances.

6.2. SOAKING OF BRICKS -All bricks shall be thoroughly soaked in a tank filled with water for a minimum period of one hour prior to being laid. Soaked bricks shall be removed from the tank sufficiently in advance so that they are skin dry at the time of actual laying. Such soaked bricks shall be stacked on a clean place where they are not contaminated with dirt, earth, etc.

6.3 All brickwork shall be laid in an English bond, even and true to line, in accordance with the drawing or as directed by the Engineer, plumb and level and all joints accurately kept. Half and cut bricks shall not be used except when necessary to complete the bond. Closer in such cases shall be cut to the required size and used near the ends of the walls. The bricks used at the face and also at all angles forming the junction of any two walls shall be selected whole bricks of uniform size, with true and rectangular faces. All bricks shall be laid with frogs up on a full bed of mortar except in the case of tile bricks. Each brick shall be properly bedded and set in position by slightly pressing while laying, so that the mortar gets into all their surface pores to ensure proper adhesion. All head and side joints shall be completely filled by applying sufficient mortar to brick already placed and on brick to be placed. All joints shall be properly flushed and packed with mortar so that no hollow spaces are left. No bats or cut bricks shall be used except to obtain dimensions of the different courses for specified bonds or wherever a desired shape so requires. The brick work shall be built in uniform layers, and for this purpose wooden straight edge with graduations indicating thickness of each course including joint shall be used. Corners and other advanced work shall be raked back. Brickwork shall be done true to plumb or in specified batter. All courses shall be laid truly horizontal and vertical joints shall be truly vertical. Vertical joints in alternate courses shall come directly one over the other. During construction, no part of work shall rise more than one metre above the general construction level, to avoid unequal settlement and improper jointing. Where this is not possible in the opinion of the Engineer, the works shall be raked back according to the bond (and not toothed) at an angle not steeper than 45 degrees with prior approval of the Engineer. Toothing may also be permitted where future extension is contemplated. Before laying bricks in foundation, the foundation slab shall be thoroughly hacked, swept clean and wetted. A layer of mortar not less than 12 mm thick shall be spread on the surface of the foundation slab and the first course of bricks shall be laid.

6.4 All brickwork shall be finished in a workmanlike manner with the thickness of joints, manner of striking or tooling as described in these above specifications. The

surfaces can be finished by "jointing" or "pointing" or by "plastering" as given in the drawings. For a surface which is to be subsequently plastered or pointed, the joints shall be squarely raked out to a depth of 15 mm, while the mortar is still green. The raked joints shall be well brushed to remove dust and loose particles and the surface shall be thoroughly washed with water, cleaned and wetted.

6.5. Pointing Pointing shall be carried out using mortar not leaner than 1:3 by volume of cement and sand or as shown on the drawing. The mortar shall be filled and pressed into the raked joints before giving the required finish. The pointing shall be ruled type for which it shall, while still green, be ruled along the centre with half round tools of such width as may be specified by the Engineer. The super flush mortar shall then be taken off from the edges of the lines and the surface of the masonry shall be cleaned of all mortar. The work shall conform to IS:2212.

6.6. Plastering Plastering shall be done where shown on the drawing. Superficial plastering may be done, if necessary, only in structures situated in fast flowing rivers or in severely aggressive environment. Plastering shall be started from top and worked down. All putlog holes shall be properly filled in advance of the plastering while the scaffolding is being taken down. Wooden screeds 75 mm wide and of the thickness of the plaster shall be fixed vertically 2.5 to 4 meters apart, to act as gauges and guides in applying the plaster. The mortar shall be laid on the wall between the screeds using the plasterer's float and pressing the mortar so that the raked joints are properly filled. The plaster shall then be finished off with a wooden straight edge reaching across the screeds. The straight edge shall be worked on the screeds with a small upward and sideways motion 50 mm to 75 mm at a time. Finally, the surface shall be finished off with a plasterer's wooden float. Metal floats shall not be used. When recommencing the plastering beyond the work suspended earlier, the edges of the old plaster shall be scrapped, cleaned and wetted before plaster is applied to the adjacent areas. No portion of the surface shall be left unfinished for patching up at a later period. The plaster shall be finished true to plumb surface and to the proper degree of smoothness as directed by the Engineer. The average thickness of plaster shall not be less than the specified thickness. The minimum thickness over any portion of the surface shall not be less than the specified thickness by more than 3 mm. Any cracks which appear in the surface and all portions which sound hollow when tapped, or are found to be soft or otherwise defective, shall be cut in rectangular shape and re-done as directed by the Engineer.

7 CONSTRUCTION MATERIALS

7.1. AGGREGATES

7.1.1 All coarse and fine aggregates shall conform to IS: 383 and shall be tested to conform to IS:2386 Parts I to VIII. It shall also conform to relevant provisions contained in IRC : 112-2011. Aggregate shall also be tested to ascertain alkali-silica reaction and such aggregates shall not be used. Fine aggregates conforming to Zone I & II of IS:383 only shall be used for bridge works.

7.2. WATER

7.2.1 The quality of water must conform to the provisions contained in IRC: 112-2011.

PARTICULAR/TECHNICAL SPECIFICATIONS

7.2.2 The permissible limits for solids must satisfy the following:-

<u>Items</u>	<u>Tested as per</u>	<u>Permissible Limit</u>
Organic	IS:3025 (Pt. 18)	200 mg/lit
Inorganic	IS:3025 (Pt. 18)	3000 mg/lit
Sulphates (SO ₃)	IS:3025 (Pt. 24)	500 mg/lit
Chlorides (as Cl ⁻)	IS:3025 (Pt. 32)	250 mg/lit
Suspended matter	IS:3025 (Pt. 17)	2000 mg/lit
The pH value.	IS:3025 (Pt. 22/23)	shall not be less than 6.

7.3. **CEMENT**

7.3.1 **CEMENT TYPES:**

7.3.1.1 The cement for use under this contract shall be any of the following:

- (a) Ordinary Portland Cement 33 Grade conforming to IS:269
- (b) Ordinary Portland Cement 43 Grade conforming to IS:8112
- (c) Ordinary Portland Cement 43 Grade conforming to IS:12269

7.3.1.2 For concrete made with Portland Pozzolana cement, or mineral admixtures, the setting time and rate of gain of strength are different from those of concrete made with OPC alone. Cognizance of such modified properties shall be taken in deciding de-shuttering time, initial time of prestressing, curing period and for early are loading. Compatibility admixture and super plasticizers with Portland Pozzolana and mineral admixtures shall be ensured by trials. Some other properties of concrete such as modulus of elasticity, tensile strength, creep and shrinkage are not likely to be significantly different. For design purpose, it will be sufficiently accurate to take the same values as those for concrete made with OPC.

7.3.2 **MAKE OF CEMENT:** Cement to be used shall be from reputed make. The approved makes/companies are the Associated Cement Companies Ltd, Grasim Industries Ltd, Ultra Tech Cement, The India Cement, Dalmia Cement, Andhra Cement Ltd, Century Cement, Saurashtra Cement, Binani Cement, Madras Cement, Mangalam Cement, Birla Corp Ltd, Orient Cement, Lafarge Cement, Shree Cement, JK Cement, JK Lakshmi Cement, Jaypee Rewa Cement, Ambuja Cement, Star Cement Meghalaya. The particulars of the manufacturer/supplier of cement along with the date of manufacture shall be obtained from the contractor for every lot of cement separately. The documents in support of the purchases of cement shall be verified by the Engineer in charge and OC. In addition to above cement from cement companies located in North East Zone like HM Shakti Cement, Valley Strong Cement, Adhuned Star Cement etc will be permitted if Cement Company is registered with DGS&D and meet the BIS quality standards. **The cements manufactured in Bhutan like Dungsum Cement (Dragon) & Penden Cement will be permitted if Cement meets the BIS quality standards.**

7.3.3 **TESTING OF CEMENT:** The manufacturer/supplier is to carry out inspections and testing of cement in accordance with the relevant BIS provisions. The contractor shall submit the Manufacturer's Test Certificate in original along with the Test Sheet giving the result on each physical test as applicable and the chemical composition of the cement or authenticated copy thereof, duly signed by the manufacturer with each consignment. The Engineer-in-Charge shall record these details in the Cement Acceptance Register after due verification. The OC shall also organize independent testing of random samples of cement drawn from various lots from the National Test House, SEMT CME, Regional Research Laboratories, Engineering College, Govt. Approved

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Laboratories, Zonal Laboratories as per IS:3535-1986 (Method of Sampling hydraulic Cement), IS : 4031 (Methods of physical test for hydraulic grey cement) and IS : 4032-1985 (Method of Sampling hydraulic grey Cement). In all such cases the sample should be forwarded for testing under the seal and signature of Engineer-in-Charge. In order to undertake departmental testing, requisite facilities shall be organized. The cost of test shall be borne by the contractor irrespective of results.

7.3.4 **STORAGE OF CEMENT**: Cement shall be stored over dry platform at least 20 cm high in such a manner as to prevent deterioration due to moisture or intrusion of foreign matter. In case of storeroom, the stack should be at least 20 cm away from floors and walls. Inspection should be carried out once a day. It should be ensured that tested and untested cement are segregated and stored separately with distinct identification.

7.3.5 **DOCUMENTATION**: The contractor shall submit original vouchers from the supplier for the total quantity of cement supplied under each consignment to be incorporated in the work. All consignment received at the work site shall be inspected by the OC Contract along with the relevant documents before acceptance. The original vouchers and the Test Certificates shall be defaced by the Engineer-in-Charge indicating CA No and kept on record in the office of OC Contract duly authenticated and with cross reference to the Control Number recorded in the Cement Acceptance Register. The Cement Acceptance Register will be signed by JE (Civ), Engineer-in-Charge, OC Contract and the Contractor. The Accepting Officer may order a Board of Officers for random check of cement and verification of connected documents. The entire quantity of all cement shall also be suitably recorded in the Pucca Bond Register for record purposes before incorporation in the work and shall be signed by the Engineer-in-Charge and the Contractor. Schedule of supply shall be so ensured so as to match with the progress contemplated in the CPM prepared for the Project.

7.4 **ADMIXTURES**

7.4.1 To improve the workability of concrete and cement grout, admixture conforming to IS : 9103 shall be permitted, subject to satisfactory proven use. Admixtures generating hydrogen, nitrogen, etc should not be used. However, concrete admixtures and super plasticizers shall only be used after proper evaluation of their performance in the concrete mixes with regard to materials and mix proportions to be used in the work. Admixtures and super plasticizers must not contain harmful constituents like chlorides, ions etc., in such amounts which may affect durability.

7.5 **TESTING FACILITIES**

7.5.1. Testing facilities shall be provided by the contractor at work site viz. cubes test, slump test for concrete and moisture test, sieve test, abrasion value test, impact value test for coarse and fine materials to be incorporated into work to the satisfaction of the Engineer-in-Charge. Universal testing machine facilities shall be made available by the contractor at site for testing reinforcement and structural steels.

8. **STRUCTURAL STEEL AND REINFORCEMENT STEEL**

8.1. **GENERAL**

8.1.1. All structural steel shall before fabrication comply with the following Indian Standards:

IS:2062 -Weldable Structural steel
 IS:961 -Structural Steel (High Tensile)
 IS:8500 -Weldable Structural Steel (High Strengths Qualities) IS:11587
 -Structural Weather Resistant steel

8.1.2 All reinforcing steel to be used in works shall conform to IS:1786. For plain and reinforced cement concrete (PCC and RCC) or pre-stressed concrete (PSC) works, the reinforcement/un-tensioned steel, as the case may be, shall consist of the following grades of reinforcing bars.

Grade Designation	Bar Type Conforming to Governing Specifications	Characteristic Strength f_y MPa	Elastic Modulus GP
Fe 240	IS: 432 Part I Mild Steel	240	200
Fe 415 or Fe 415 D	IS:1786 High Strength Deformed Steel Bars (HSD)	415	200
Fe 500 or Fe 500 D	IS:1786 High Strength Deformed Steel Bars (HSD)	500	200
Fe 550 or Fe 550D	IS:1786 High Strength deformed Steel Bars (HSD)	550	200
Fe 600	IS : 1786 High Strength Deformed Steel Bars (HSD)	600	200

8.1.3 If any grade of steel given in the above table is not available, steel of next higher grade may be used.

8.1.4 Hot dipped galvanized reinforcing steel shall be provided wherever specified. The coating shall conform to IS: 12594-1988.

8.2. **PROCUREMENT:**

8.2.1. All structural steel/ reinforcement shall be procured by the contractor directly from SAIL, TISCO, RINL (Vizag Steel), Essar Steel Ltd, Lloyds Steel Industries Ltd, Jindal Iron and Steel Co. Ltd, Jindal Vijay Nagar Steel Ltd, IISCO, Jindal Strips Ltd, and Trade Arbed.

8.2.2. Only new steel shall be delivered to the site. Every bar shall be inspected before assembling on the work and defective, brittle or burnt bars shall be discarded. Bars with cracked ends shall be discarded. For the steel procured from original producers also, the Engineer/Employer may carry out occasional checks on materials through third party as mentioned above, for confirming the test results shown in the certificates, in case of any doubt regarding the quality of steel supplied.

8.3 **WATER PROOFING TREATMENT OF RCC CHAJJA/FACIA**

8.3.1 Top of RCC Chajja/Facia shall be treated with 15mm thick cement plaster (1:4) with water proofing compound and PCC M-15 (Nominal mix) coving shall be provided and rounding at the junction of walls and chajjas/facia.

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8.4 RAIN WATER PIPES AND ACCESSORIES

8.4.1 Where ever Rain water pipes shown on drawings, the same shall be of PVC (S.W.R) pipes Type 'A' conforming to IS:13592 and fittings conforming to IS:14735 of makes as specified in **list of preferred makes for civil works**. The diameter of rain water pipe shown/indicated on drawings as 100mm and 150mm, the same shall be amended to read as 110mm and 160mm respectively. The pipes and fittings shall be secured to walls below all joints with mild steel holder bat clamps. The colour of pipes shall be as decided by OC Contract. The pipes and fittings shall be jointed with rubber rings and fixed to walls as indicated.

8.4.2 Where the pipes have been encased in masonry/brick work/concrete works, bracket/holder bat clamps etc need not be provided for fixing the pipes. Bends will be acceptable in lieu of shoe or nose, without any price adjustment. Irrespective of what is shown on drawing, the gap between shoe/bend & plinth protection/splash stone shall be packed with PCC M-10 (Nominal mix). Sealing compound "M" seal or equivalent shall be provided around rain water pipes passing through RCC chajjas/roof projections as shown on drawings.

8.4.3 The grating shall be of CI round type weighing not less than 0.5 Kg each, provided and fixed of the inlet of rain water pipe.

8.4.4 Splash stones as specified here-in-before shall be provided below the rain water pipe.

8.4.5 Spouts and pipe outlet where shown on drawing shall be of GI tubing medium grade as per IS-1239. Size and length shall be as shown on drawing, wherever, the same is not shown on drawing it shall be 50mm bore, projecting 250mm beyond outer face of walls. Spout/GI Pipe/Conduit wherever passed through beam/RCC, it shall be put in position at the time of casting of beam/RCC.

9. PRE COATED COLOUR PROFILE SHEET ROOFING SYSTEM :

9.1. Pre coated colour profile sheets shall be provided in the roof of Pre-Engineered building for auditorium. Pre coated colour profile sheets shall be 0.63mm nominal thick profiled aluminium sheeting of green colour and of make ISPAT INDUSTRIES LTD / INTERARCH / BHP ZINCOLITE / TATA BLUE SCOPE/EVEREST. Each panel shall provide one metre coverage and length upto 10m. The material shall conform to ASTM A792 and the galvanized coating to ASTM A792-AZ-150. The yield strength of material shall be 550N/Sqm(Minimum).

9.1.1 Pre coated aluminium colour profile sheets shall be fixed on purlins or other steel members as per manufacturer's instructions. Trusses, purlins and other steel members shall be provided all as per details shown in drawings.

9.1.2. Irrespective of what is mentioned in Schedule of Finishes/drawing, all steel members of trusses shall be applied two coats of red oxide primer (one coat before erection and one coat after erection).

9.1.3 Flat iron wind tie 40 x 6mm shall be provided at either sides eaves and ridges with an overlap of 75mm at joints and jointed with 2 numbers of nuts and bolts of suitable dia. Wind tie shall be painted with two coats of synthetic enameled paint over a coat of red oxide primer.

10 FLOORING : Flooring shall be provided as mentioned in drawing attd.

10.1 GENERAL :

10.1.2 Floors of various types shall be provided as specified here-in-after and as mentioned in drawings.

10.1.3 Floors shall be laid to levels or to falls as shown on drawings/directed by Engr-in-Charge. Floor shall be sunk below the general floor level to the required depth where shown in drawings, by suitably sinking the slabs at the time of casting them.

10.1.4 Floor finish shall be carried over through out all openings and dwarf walls.

10.1.5 Surface of concrete floors unless otherwise specified shall be finished even and smooth using extra cement with steel trowels.

10.1.6 The dividing line between the floors of different type where ever they so met between adjoining rooms shall be determined on the basis of finish visible when the doors are closed and the applicable finish shall accordingly be provided. Exposed edges of floors shall be finished to match with top surface finish.

10.1.7 Sub base shall not be laid in panels. Joints of tiles shall be filled with epoxy only.

13.1.8 Cement concrete sub base or sub base floor and wearing coat shall be laid separately and not monolithically.

10.1.9 PCC floor topping shall be laid in square or rectangular panels with each side not exceeding 1.2 m.

10.1.10 If any extra thickness of concrete is required to provide slope in the floor as directed by the Engineer-in-Charge, the same shall be provided by the Contractor at no extra cost to the department.

10.1.12 The lump sum quoted by the tenderer shall also include for cement concrete floors at location which are obviously and fairly intended and which may not have been specifically referred to in the tender documents but which are essential for the execution and completion of the work in a workmen line manner and sound construction.

10.2 MATERIALS

10.2.1 NON SKID VITREOUS TILES

10.2.1.1 Non skid vitreous ceramic tiles (Light coloured) shall be vitreous ceramic tiles of 1st quality and of shade as decided by OC Contract. The make of tile shall be as per **list of preferred makes for civil works**.

10.2.2 VITRIFIED TILES

10.2.2.1 Vitrified tiles shall be of first quality (classic series) and shade (Light coloured) as directed by OC Contract. These shall be of Make as mentioned in per **list of preferred makes for civil works**. The size of tiles shall be 60cmx60cmx thickness not less than 9.5mm.

10.2.3 CERAMIC GLAZED TILES

10.2.3.1 Ceramic glazed floor/wall tiles shall be of 1st quality and shall conform to IS: 13753. The size of tiles, if not indicated, shall be 450x300x7mm/350x250x7mm thick (in case of walls) and 300x300x7mm/ 600x600x10mm thick non skid tiles (in case of floor).

10.3 TYPE AND COMPOSITION OF FLOORS

10.3.1 The flooring for all buildings shall be provided in situation as shown on drawings for Schedule of finishes and specified hereinafter.

10.3.2 Base/Sub base/Sub floors/floors:-

Base/sub base/sub floors/floors shall be provided as per drawing for Schedule of finishes and as specified below:-

10.4 MAPLE WOOD FLOORING

Maple wood flooring shall be laid bedding of over 50mm thick PCC 1:3:6 (Nominal mix) using 20 graded stone aggregate over a layer of hard core of 75 mm thick over rammed earth.

10.5 NON SKID TILE FLOORING

Non skid ceramic vitreous tile flooring shall be laid after applying neat cement slurry @ 3Kg of cement per Square meter over bedding 15mm thick screed in CM (1:4) over 50mm thick PCC 1:3:6 (Nominal mix) using 20 graded stone aggregate over rammed earth. The tiles shall be pointed with white cement with pigment to match the colour of tiles. Colour & design shall be approved by OC Contract.

10.6 WOODEN CLADDING :

Wooden cladding with teak wood cladding 12 mm thick, surface finished brushed natural shall be provided up to 1.2 mtr height from floor level as specified in the drawing.

10.7 STEPS**10.7.1 BRICK STEPS (PCC finish):**

Wherever PCC finish is shown on drawing/ Schedule of finishes, treads of steps shall be provided with Cast-in-situ cement concrete topping 20mm thick in PCC M-20 (Nominal mix) with chequered finish on top of treads. Risers of steps in such cases shall be finished with 10mm thick cement plaster in cement mortar (1:3) finished even and smooth without using extra cement. However the sides of the steps shall be finished with 5mm thick plaster in CM (1:3) finished even and smooth without using extra cement.

11 **CEMENT BASE PAINT**

11.1 Cement base paint shall be provided in two coats over a coat of primer computable to the cement base paint as per manufacturer's instruction at location as specified and as directed. Shade shall be approved by OC Contract. Cement base paint shall conform to IS-5410-1992 as approved by OC Contract. Makes/brand of cement base paint shall be as specified in **list of preferred makes for civil works**.

11.2 **Exterior waterproof coating UV resistant elastomeric coating:-** Plastered surfaces shall be prepared smoothly by using acrylic based flexible sealant such as plastiseal manufactured by STP Limited or equivalent or PU based primer of other equivalent manufacturer prescribed to accommodate thermal or structural movement in small cracks to achieve smooth surface before applying coating. Applying poly urethane based high build primer Shaliprimer penetration of STP Ltd.@ 0.100 Liter/ sqm for single coats as a primer without dilution prior to application of proactive coating. Applying flexible elastomeric, acrylic resin based coating at an average thickness of 200 microns dry film thickness (DFT) in two coats @ 350 ml/sqm. In succession of primer application, after 3 hours interval application of first coat by roller by adding 10% water or as per manufacturer recommendations. The final coat of will be applied after 3 hours of first coat diluted with water to enhance the consistency. Rest of specification for exterior waterproof coating shall be applied as per manufacturer's instructions. Make :- Shalicryl @ 215 or equivalent make as approved by the OC Contract.

Note:- Shade will be approved by the OC Contract.

Specific Gravity 1.30 + 0.03	Viscosity @30 degree Centigrade, CPS 20000+ 2000	Drying time in hrs 6 hrs	Re coat ,hrs 6-24 (depending on climatic conditions)
Elongation at break, 300%	Film type:- breathable but resistance to entry of water	Theoretical coverage 3.25 sqm per liter	Film (DFT) thickness:- 400 micron in two layer

12. **GLAZING**

12.1. All glazing shall be with sheet glass of ordinary quality and shall conform to IS -2835. Glass shall be free from all defects viz bubbles, waviness etc. and shall be of uniform thickness.

12.1.1. Glazing to steel windows/vents as shown on the relevant drawings shall be with 4mm thick sheet glass unless otherwise shown on drawings. Glass used shall be plain sheet glass except in baths /WC/Toilets/Lavatory and bottom glass of steel windows (in ground floor) only. Makes/brand of sheet glass shall be as specified in **list of preferred makes for civil works**.

12.1.2. The glazing to steel frames, where shown on drawings, shall be fixed with special spring glazing clips with putty and glazing to wooden joinery shall be fixed with wooden beading with putty all as specified and as directed.

12.1.3 Glazing to glass door shall be selected quality. The thickness of sheet glass shall be 5.5mm unless otherwise indicated in the drawing.

13. PAINTING

13.1 All synthetic enamel paints and emulsion paints shall be of 1st quality manufactured by the standard firms as per **list of preferred makes for civil works**.

13.1.2 The contractor shall inform the OC Contract, with in three weeks of the acceptance of the tender, the brand/ names of the manufacturers of paint proposed to be used in the work and submit samples thereof to OC Contract before their use in work and obtain prior approval of OC Contract.

13.1.3. The contractor shall, when required by the OC Contract, produce certificate from the manufacturer or their authorised agents to establish that the brand of paints purchased by the contractor from them satisfy the requirements of the relevant IS.

13.1.4. Paints for priming coat, under coat and finishing coat shall be of the same brand.

13.1.5. Tint of paint, if not mentioned in drgs/schedule of finishes, will be as approved by the OC Contract.

13.2. WORKMANSHIP

13.2.1 All wood work required to be painted shall be smoothened size and knotted and then applied with priming coat, stopping and filling [filler coat] shall be done after priming coat and surface rubbed down to a level and smooth surface and thereafter under coat and finishing coat shall be applied all as specified and as directed. Steel and iron work shall be painted in the manner as specified and as directed.

13.2.2. The surfaces of all wooden and steel or iron, where indicated in schedule of finishes to be painted, shall be given two coats [under coat and finishing coat] of synthetic enamel paint over a coat of pink primer/red oxide zinc chrome primer respectively.

13.2.3. The surfaces indicated in schedule of finishes to be aluminum painted shall be given two coats of aluminum paint conforming to IS-2339 over a coat of appropriate primer.

13.2.4. No treatment shall be given to reinforcement and galvanised fittings such as , GI tubing for hand rails, aluminum doors and windows etc.

13.2.5. All other steel surfaces, exposed to view but not covered in schedule of finishes or their finishing is not specifically indicated in any other drawings or specified elsewhere shall be given two coats of synthetic enamel paint over a coat of red oxide Zinc chrome primer of tint as directed by the OC Contract.

13.2.6 Bottom of door shutter shall be given one coat of primer only.

13.2.7 All exposed cast iron soil/waste/vent/anti syphonage pipes, PVC RWP and fittings thereto shall also be painted with synthetic enamel paint (one under and finishing coat) external matching in colour with the adjoining surfaces.

13.2.8 If the under coat of the paint is not executed within six months after applying the priming coat of paint, the priming coat shall be redone by the contractor at no extra cost to the govt.

13.3 TARRING

13.3.1 The back of wooden/steel chowkats in contract with stone/brick work/plaster etc. shall be given two coats of tar. Hold fast shall be given two coats of tar and sanded it.

13.4 FRENCH POLISH

13.4.1 French polish, where indicated on drawings, shall be all as specified and as directed. Unless otherwise specified in drawing, wooden surfaces of built-in furniture shall be french polished.

13.5 CEMENT SLURRY

13.5.1 Portions of MS bolts, lugs, anchor bolts etc. embedded in concrete or masonry shall be treated with neat cement slurry.

13.6 ALUMINIUM PAINT

13.6.1 Aluminum paint, where indicated on drawings, shall be provided in two coats over a coat of primer.

13.7 Irrespective of what is specified in drawings wire gauge fixed in doors/windows shall be painted with one coat approved shade of synthetic enamel paint.

14 PEG SET OF THREE/SIX

14.1 Peg sets shall be provided as per direction of Engineer-In-Charge. Pegs shall be of standard rectangular steel chromium plated. The pegs shall be fixed to 1st class hard wood 20mm thick Teak wood plank all as per direction. All wooden surfaces shall be French polished.

15 BUILT IN WARDROBE:

15.1 Wardrobe shall be provided as per details shown on drawings the following brief Specifications: -

- (i) Masonry- All masonry work shall with bricks in CM (1:4).
- iv) All internal masonry surfaces shall be plastered with 12 mm thick plaster in CM (1:4) finished even and smooth without using extra cement .
- (v) All internal masonry surfaces of wardrobe shall be treated with two coats of oil bound distemper after preparation of surfaces. External surfaces of masonry of cupboard shall be plastered and treated with finishes as specified for the adjoining walls of rooms.
- (vi) The height of cup board steel, if not indicated in drawings, shall be equal to the height of door.
- (vii) All other details shall be all as per details shown in drawings.

16.

TOWEL RAILS

- 16.1 Towel rails shall be tubular of brass chromium plated with CP brass brackets. It shall be of 19/20mm dia and 60cm long (between flanges) in case length is not indicated on the drawings. Minimum thickness of towel rails shall be 1mm.

17. OVAL TYPE WASH HAND BASIN (With Mirror)

- (a) Oval type WHB of size 51cm x 45 cm vitreous china glazed ware as per Cat No. 10038 of 'Hindware' or any other equivalent make as specified in **list of preferred makes for civil works** of colour as approved by OC Contract, shall be fixed with following fittings:-
- (i) Waste fittings brass chromium plated screwed with fly nut and washer suitable for 32mm bore pipe.
 - (ii) 32mm dia PVC waste pipe of approved quality from WHB to trap.
- (b) Mirror of size 1.40 mtr x 1.20 mtr shall be of polished sheet glass 5.5mm thick fixed on 6mm thick plywood, BWR grade conforming to IS-303 (duly ISI marked). Ist class hard wood Teak wood frame of size 20mm wide and 10mm thick shall be provided around the mirror. Mirror shall be hung by key slots on screws fixed to plug embedded in walls. All exposed wooden surfaces shall be French polished.

28. SANITARY AND TOILET FITTINGS**18.1 GENERAL**

- 18.1.1 All sanitary appliances shall be of vitreous china (white) first quality and shall conform to IS-2556 for General requirements and as specified and directed. These shall be of an approved as specified in **list of preferred makes for civil works**.
- 18.1.2 All waste pipe and fittings upto floor/nahani trap shall be galvanised steel tubing medium grade all as specified and directed.
- 18.1.3 Flush pipe and socket of flushing rim of WC shall be jointed with white cement and red lead (white cement and red lead in equal proportion by weight) and linseed oil to form paste.
- 18.1.4 'P' or 'S' trap shall be jointed to WC pan with cement joints .
- 18.1.5 Cast iron brackets for the relevant sanitary and toilet fitting shall be given two coat of aluminium paint over a coat of primer.
- 18.1.6 Cast iron brackets shall conform to IS-775.
- 18.1.7 The sizes of sanitary fittings to be provided shall be the nearest size as per manufacturer's catalogue.

19 WATER CLOSET (SQUATT PATTERN ORISSA TYPE)

19.1 Water closet squat pattern shall be Orissa type and conform to IS-2556 Part-III of size 580mm x 440mm shall be provided with 'P' or 'S' trap and the following fittings/items irrespective of whatsoever is shown on drawings :-

- a) Flush pipe of polyethylene of low or high density or PVC, 32mm dia, for low level cistern.
- b) 15mm dia polythene overflow pipe upto 75mm above from floor level with polythene anti mosquito rose.
- c) Dual system 10 liters discharge capacity polyethylene low level flushing cistern solid moulded with valve less symphonic fitting, manual operated with one pull ball valve horizontal plunger type with polyethylene float valve.

NOTE : Where flushing cistern cannot be fixed in wall due to window/lintel as per sanitary plan, the same shall be fixed in the side wall with additional bend, the cost of which shall be deemed to be included in the lump sum cost of building given in Sch 'A'.

- d) The pan shall be set in lime concrete (1:2) at least 25cms around and finished just below the rim to receive the specified thickness of floor finish.

20. WATER CLOSET PEDESTAL PATTERN

20.1 EWC or English type WC or European type WC indicated in the plan or resembles the above types of WC, in such locations, water closet pedestal pattern shall be provided and shall consist of the followings :-

- (i) Water closet wash down pattern of height 40 cm with vitreous china 'S' trap in ground floor and providing with long arm CI 'P' trap so that joint is avoided inside sunken portion as well as in walls and outlet straight away come out of wall in intermediate floors all as per IS-2556 (Part-II 1981).
- (ii) Plastic seat and cover with flat underside solid moulding closed form pattern with cover shall be as per IS:2548 (Part-I). Seat and cover shall be white in colour with chromium-plated hinging device.
- (iii) 10 litre discharge capacity low level PVC flushing cistern with all accessories and a pair of the brackets.
- (iv) 32-mm dia flush pipe of chromium plated brass tube bent to required shape including chromium plated brass coupling.
- (v) The closet shall be screwed with brass screws to First class hard wood (teak) wood plugs embedded in floor.
- (vi) Provision of jet shall be made in all EWC.

21. SOAP NICHE

21.1 Unless otherwise specified in drawings, Glazed Ceramic tiles, of colour as per surrounding dado, for soap niches shall be 5mm thick conforming to relevant I.S. Tiles shall be set and jointed in neat cement slurry and pointed with white cement to match the colour of tiles.

22. NICHE WITH WASH HAND BASIN

22.1 Where glass or vitreous china shelf not indicated with wash hand basin, a niche of size 450 × 200 × 100 mm shall be provided. All sides of niche shall be lined to match with adjoining surfaces.

23. **URINALS** : Urinal shall be white, vitreous, china, bowl, flat back type, of size 43cmx36cmx27cm or 43cmx36cmx26cm conforming to IS-2556 Part-VI (Section-1) with grating and union including the following fittings :-

- i) 5 litres discharge capacity PVC automatic flushing cistern conforming to IS-2326 including CI brackets.
- ii) 20mm bore medium grade galvanised iron flush pipe.
- iii) 15mm polythene over flow pipe upto 75mm above FFL or outlet drain.
- iv) Chromium plated brass coupling to connect urinal pan with waste pipe and chromium plated adopter to connect pan with flush pipe.
- v) The pan shall be fixed with brass screws on sheesham wooden plugs embedded in the wall in CM (1:2).
- vi) Urinal partition shall be of 18 to 20mm thick polished white 'Makrana' marble stone as shown on drawing. In case, nothing is mentioned on drawing it shall be of 18 to 20mm polished marble stone slab with MS channel at bottom and set in cement mortar 1:3. The width of partition wall shall be as shown in drawing and shall be in one piece. In case, no size is mentioned on drawing, it shall be of 450mm x 600mm.

24. WASTE PIPE AND COUPLING

24.1 In all locations where waste pipe is to provided e.g for WHB, Sinks etc., 32mm dia, GI, medium grade, waste pipe of required length shall be provided with brass chromium plated waste coupling with perforated grating 32mm dia.

25. TOILET PAPER HOLDER

25.1 Irrespective of whatsoever is shown on drawings, one toilet paper holder shall be provided with each WC (Pedestal type). Unless otherwise specified in drawings, toilet paper holder shall be 150mm x 150mm recessed roll type as per catalogue No. 4008 of Hindustan Sanitary Ware & Industries Ltd. and fixed all as directed.

26. INTERNAL ELECTRIFICATION

Contractor has submit the electric plan to the Commander Contract for approval before commencement of work.

26.1 SCOPE OF WORK

26.1.1 The scope of work will be as directed by the OC Contract.

26.2 GENERAL REQUIREMENTS

26.2.1 Electrical fittings to be provided as per requirements and as directed by the OC Contract.

26.3 TYPE OF WIRING

26.3.1 The type of wiring (batten or concealed conduit) shall be as shown on drawings and directed by the Engineer-in-Charge. Point wiring for light/power/ fan/bell or buzzer point(s) includes all works as directed by OC Contract/Engineer-In-Charge.

26.4 INTERNAL ELECTRICAL WORK

26.4.1 Cable for internal wiring for light, power and sub main cables shall be with copper conductor and shall be of following type :-

- a) **WIRING WITH PVC CONCEALED CONDUIT**
 - (i) Single core, copper conductor (flexible) FRLS PVC insulated cable unsheathed) of suitable size, 1.5/2.5/4.00 Sqmm copper conductor upto 1100 Volts grade conforming to IS-694 shall be used.
- b) **FLEXIBLE CORDS, TWISTED COPPER CONDUCTOR**
 - (i) Flexible cords, twin core, each with tinned annealed stranded copper conductor elastomer insulated and textile braided twisted together, size, nominal cross sectional area 0.5 Sqmm shall be as per IS-9968 part-1.
- c) **WOODEN BLOCK, BOARDS AND ROUND BLOCKS**
 - (i) These shall be approved by OC Contract. Conduit and conduit fitting shall be approved by OC Contract.
- d) **PLUG/GUTTIES, SCREWS AND FASTENINGS**
 - (i) These shall be approved by OC Contract.
- e) **CEILING ROSE, SHADES AND BULK HEAD FITTINGS**
 - (i) These shall be approved by OC Contract.
- f) **SUNK TYPE BOXES**
 - (i) These shall be approved by OC Contract.
- g) **SWITCH SOCKET OUTLETS**
 - (i) These shall be approved by OC Contract.
- h) **LAMP HOLDERS**
 - (i) These shall be approved by OC Contract.

j) **MINIATURE CIRCUIT BREAKERS**

(i) These shall conform to IS-8828 (specification for MCBs for AC circuit for voltage not exceeding 1000 Volts). All MCBs shall be housed in suitable size standard sheet metal enclosure of 16 gauge MS Sheet supplied by the manufacturer of MCBs.

k) **LIGHT FITTINGS**

(i) All light fittings shall be provided as LED flights. Number of light shall be fittings confirmed by OC Contract/Engineer-In-Charge. LED surface and hanging lights (for table tennis, carom board and round table) shall be fixed on the RCC roof ceiling. Eight (08) nos LED flood lights of 100 watts shall be fixed wall of the badminton court. The location shall be decided by the Engineer-in-Charge/OC Contract.

l) Particular attention is drawn to the neatness as in appearance which is to be achieved by judicious planning of run of the cable, the locations of the light fittings, fans, switches, socket outlets, main switches etc.

m) Due regard shall be given to doors, windows, opening etc. in fixing of runs of cables, position of fittings, control switches and outlet points. The workmanship shall comply strictly with the rules contained in latest Indian Electricity rules.

n) Samples of all electric fittings shall first be got approved from OC Contract in writing before incorporation in work and shall conform to relevant IS. Utility light fittings shall be of the best quality available and conform to sample kept in OC Contract's office.

(o) Types of Light Fittings shall be provided at the locations as directed by Engineer-in-Charge.

26.5 **EARTHING AND TESTING**

26.5.1 Earthing shall be carried out as directed by OC Contract.

26.6 **SITTING OF ELECTRIC EQUIPMENT**

26.6.1 The sitting of cable, conduit run controls, distribution boards, fittings and accessories etc. shall be as laid down in IS-4648. "Guide for electrical layout in residential building" or as directed by the Engineer-in-Charge. The location of fittings etc shall be marked in advance on walls etc and approved by the Engineer-in-Charge.

26.7 **SYSTEM OF WIRING**

26.7.1 Wiring shall be carried out with PVC insulated cable. All conductors as far as possible shall run near walls and ceiling so as to be easily accessible and capable of being thoroughly inspected. Power wiring shall be kept separate and distinct from light wiring. In all type of wiring due consideration shall be given for neatness, good appearance and safety. Diagonal runs will not be permitted.

26.8 CONTROL AT POINT OF ENTRY OF SUPPLY

26.8.1 These shall be linked with main switch gear (Isolator) with MCB on each live conductor of the supply mains at the point of entry. The wiring through out the installation shall be such that there is no break in the neutral wire except in the form of a linked switch gear. No fuses shall be inserted in the earth neutral.

26.9 TYPE OF SWITCH BOARDS

26.9.1 Hinged type metal boards for mounting the MCB and electrical meters shall be as per approved by Engineer-In-Charge. Meter box shall be made of 16 gauge MS Sheet with provision of locking arrangement and glass window.

26.10 JOINTS AND LOOPING BACK

26.10.1 These shall be approved by Engineer-In-Charge.

26.11 PASSING THROUGH WALLS AND FLOORS

26.11.1 Locations for passing the conductors through walls and floors approved by Engineer-In-Charge.

26.12 RECESSED CONDUIT WIRING

26.12.1 System of conduit wiring shall be approved by Engineer-In-Charge.

27. INTERNAL WATER SUPPLY**27.1 WATER TUBING, BIBTAPS, STOP VALVES AND SHOWER ROSE**

27.1.1 Mild steel galvanised tubes (pipes) and fittings shall be ISI Marked & all as approved by Engineer-In-Charge, bib taps and stop valves shall be all as approved by Engineer-In-Charge. Shower rose shall be of approved make as per sample kept in OC Contract's office.

27.2 LAYING AND FIXING PIPES

27.2.1 The pipes for supply of water to all fittings inside the buildings/toilets shall be run on the walls except otherwise as specified in these tender documents or shown on drawings, connected to various fittings and shall be brought in the room at point/position approved by the Engineer-in-Charge at site.

27.2.2 Where pipes are laid underground, the trenches shall be excavated as directed by the Engineer-in-charge. The pipes running along face of the walls/concealed in walls shall be clamped in the walls. Where pipe is passing through a wall, a mild steel tube sleeve shall be fixed

27.3 PVC PIPE CONNECTION

27.3.1 Ready made PVC connection pipes of standard make shall be 450mm long suitable for 15mm bore GI pipe complete with brass chromium plated coupling nuts and rubber washer. The weight of brass coupling nuts shall not be less than 40 grams. The weight of PVC pipe 450mm long shall not be less than 40 grams.

27.4 WORKMANSHIP

27.4.1 Laying of GI pipes (internal works) shall be approved by Engineer-In-Charge.

27.4.2 The contractor shall use proper bends, elbows, unions etc at turning corner. Bending of pipes shall not be allowed in any case.

27.4.3 Pipe shall not run diagonally.

27.4.4 Contractor shall provide screwed plugs to all open ends of pipes on completion of days work.

27.5 TESTING

27.5.1 Testing of pipes shall be carried out as directed by OC Contract.

27.6 RECORD DRAWINGS

27.6.1 Three copies of plumbing line plan of complete work indicating the line of pipes, position of fittings etc. shall be submitted by the contractor to the Engineer-in-Charge on completion of work.

28. PLUMBING WORK**28.1 GENERAL**

28.1.1 Plumbing work shall be carried out as directed by the Engineer-In-Charge.

28.2 SOIL/WASTE/VENT PIPES/FITTINGS/ACCESSORIES

28.2.1 Soil waste and vent pipes (except of 50mm bore) shall be of cast iron (Spun pipe) conforming to IS-3989:1984 with or without ears and with spigot and socket ends. 50mm bore CI pipe shall be sand cast conforming to IS-1729: 1979 with or without ears and with spigot and socket ends. All the pipes and fittings shall bear ISI certification mark.

28.3 JOINTING

28.3.1 CI pipes and fittings laid under floor/hidden portion shall be jointed with run lead joints as directed by the Engineer-In-Charge and all other joints shall be in cement mortar.

28.4 FIXING OF PIPES TO WALLS

28.4.1 CI pipes and fittings shall be fixed to wall with mild steel clamps as directed by the Engineer-In-Charge.

28.5 NAHANI/FLOOR TRAPS

28.5.1 Nahani/floor traps shall be provided in situations as shown on drawings. These shall conform to IS-1729. Floor traps shall be provided with CI grating.

28.5.2 Where Nahani/floor traps of 22.5cm depth can not be accommodated in sunken floor, a 300mm x 300mm portion of the RCC slab shall be sunk to the extent it accommodates the Nahani trap without any additional cost.

28.6 **SHORTER LENGTH**

28.6.1 Except for WC connections, the contractor may use pipe pieces without sockets in shorter lengths (less than one pipe length), where approved by the OC Contract and connect these to pipe fittings with double sockets/collars including additional joints as specified above without extra cost to the Government.

28.7 **GULLY TRAPS**

28.7.1 Gully traps shall be salt glazed stone ware complying with the requirements of IS-651. These shall be set in PCC M-10 (Nominal mix) block measuring 450 x 450mm and 100mm thick. Jointing to drain pipe shall be done in cement mortar (1:1).

28.7.2 Cast iron perforated grating shall be 150mmx150mm bituminous coated and fixed as directed by Engineer-in-Charge. PCC M-10 (Nominal Mix) in kerb and RCC cover slab reinforced with XPM weight not less than 4Kg/Sqm and shall be provided all as directed by Engineer-in-Charge.

28.8 **TRENCHES FOR PIPE LINES**

28.8.1 Excavation for trenches shall be done as per direction of Engineer-In-Charge and as specified hereinbefore and depth as required at site. The trenches shall be back filled after testing of pipes with excavated earth in layers not exceeding 250mm and surplus spoil disposed off to a distance not exceeding 50 metres.

28.9 **TESTING**

28.9.1 All soil, waste and vent pipes shall be tested as directed by the Engineer-In-Charge.

[in lieu of IAFW-2159 (Revised 1947) (to be used in conjunction with General Conditions of Contract based on IAFW-2249 (1989 Print)]

CHIEF ENGINEER PROJECT DANTAK

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Headquarters
Chief Engineer
Project Dantak
PIN : 931708
C/O 99 APO

80554/ /E8

Nov 2020

NAME OF WORK: “DESIGN AND CONSTRUCTION OF AUDITORIUM PORTAL STRUCTURE AS PER BHUTANESE DESIGN WITH VERANDAH OF SIZE 36.00 X 17.60 MTR USING PEB TECHNOLOGY AND ALLIED WORKS, PROVIDING AND ERECTION OF PREFABRICATED SHELTER OF SIZE 16.581 MTRX7.541 MTRX2.7 MTR HEIGHT WITH VERANDAH 1.5 MTR FOR SIGNAL SECTION INCLUDING ALLIED WORK, PROVIDING AND ERECTION OF PREFABRICATED SHELTER OF SIZE 14.64 MTR X 6.10 MTR X 2.7 MTR HEIGHT WITH VERANDAH PROJECTION OF 4X 3 MTR FOR QTR GUARD AND ALLIED WORKS AND DISMANTLING OF EXISTING BUILDING (QTR GUARD,SIGNAL SECTION & STORES CUM GEN SET ROOM) AT HQ CE(P) DANTAK UNDER 102 RCC/19 BRTF PROJECT DANTAK INSIDE BHUTAN: JOB NO.60/344”.

Dear Sir (s),

Shri _____ of _____ is/are hereby authorized to tender for the above work. The tender is to be delivered at the Office of the Chief Engineer, Project DANTAK, PIN 931708, C/O 99 APO or at **OIC liaison cell located at HQ 19 BRTF, Jaigaon, Pin-930019, Ph 8145087696 upto 1100 hrs (BST) on 15 Dec 2020** addressed to Headquarters, Chief Engineer, Project Dantak, PIN – 931708, C/o 99 APO to be opened on **21 Dec 2020 at 1130 Hrs (BST).**

All documents must be returned whether or not a tender has been submitted.

Any correction concerning this tender should be addressed as indicated at the top of this sheet, quoting the reference as given.

**THE PRESIDENT OF INDIA DOES NOT BIND
HIMSELF TO ACCEPT THE LOWEST OR ANY TENDER**

Signature of Contractor

For Accepting Officer

BORDER ROADS ORGANISATION
MINISTRY OF DEFENCE
PROJECT DANTAK
C/O 99 APO

NAME OF WORK: “DESIGN AND CONSTRUCTION OF AUDITORIUM PORTAL STRUCTURE AS PER BHUTANESE DESIGN WITH VERANDAH OF SIZE 36.00 X 17.60 MTR USING PEB TECHNOLOGY AND ALLIED WORKS, PROVIDING AND ERECTION OF PREFABRICATED SHELTER OF SIZE 16.581 MTRX7.541 MTRX2.7 MTR HEIGHT WITH VERANDAH 1.5 MTR FOR SIGNAL SECTION INCLUDING ALLIED WORK, PROVIDING AND ERECTION OF PREFABRICATED SHELTER OF SIZE 14.64 MTR X 6.10 MTR X 2.7 MTR HEIGHT WITH VERANDAH PROJECTION OF 4X 3 MTR FOR QTR GUARD AND ALLIED WORKS AND DISMANTLING OF EXISTING BUILDING (QTR GUARD,SIGNAL SECTION & STORES CUM GEN SET ROOM) AT HQ CE(P) DANTAK UNDER 102 RCC/19 BRTF PROJECT DANTAK INSIDE BHUTAN: JOB NO.60/344”.

Part - II (PRICE BID)

The following shall form part of this contract agreement: -

Document annexed hereto

S/No	Particulars	Page No
1	Contents	166
2	Schedule “A”/BOQ (Notes)	166 to 168
3	Schedule “A”/BOQ	169-170
4	Schedule “B” to “D”	171-172
5	Tender	173
6	Acceptance	174

SCHEDULE 'A'/BOQ NOTES

NAME OF WORK: "DESIGN AND CONSTRUCTION OF AUDITORIUM PORTAL STRUCTURE AS PER BHUTANESE DESIGN WITH VERANDAH OF SIZE 36.00 X 17.60 MTR USING PEB TECHNOLOGY AND ALLIED WORKS, PROVIDING AND ERECTION OF PREFABRICATED SHELTER OF SIZE 16.581 MTRX7.541 MTRX2.7 MTR HEIGHT WITH VERANDAH 1.5 MTR FOR SIGNAL SECTION INCLUDING ALLIED WORK, PROVIDING AND ERECTION OF PREFABRICATED SHELTER OF SIZE 14.64 MTR X 6.10 MTR X 2.7 MTR HEIGHT WITH VERANDAH PROJECTION OF 4X 3 MTR FOR QTR GUARD AND ALLIED WORKS AND DISMANTLING OF EXISTING BUILDING (QTR GUARD,SIGNAL SECTION & STORES CUM GEN SET ROOM) AT HQ CE(P) DANTAK UNDER 102 RCC/19 BRTF PROJECT DANTAK INSIDE BHUTAN: JOB NO.60/344".

1. The scope of work covered under this contract are as under:-

Description of Work	Drg No.
Design and construction of auditorium portal structure as per Bhutanese design with verandah of size 36.00 x 17.60 mtr using peb technology including sound system and allied works as per layout plan attd.	As per Lay out plan attd.
Providing and Erection of Prefabricated shelter of size 16.581 mtr x 7.541 mtr x 2.7 mtr height with verandah 1.5 mtr for signal section and allied works as per layout plan attd.	
Providing and Erection of Prefabricated shelter of size 14.64 mtr x 6.10 mtr x 2.7 mtr height with verandah projection of 4x 3 mtr for Qtr guard and allied works as per layout plan attd.	
Dismantling of existing building (Signal Section, Qtr Guard & Stores cum Genset room) at HQ CE(P) Dantak.	
Misc works like R/wall , Drains, Steps, Hand rails, etc. as per layout plan attd. Marking of Lawn Tennis court of size 23.77 mtrx10.97 mtr, Badminton court of size 13.40 mtr x 6.10 mtr and Basket ball court of size 28.70 mtr x 15.20 mtr and supply of quality moveable basket ball hoop and detachable post and net for lawn tennis.	

Notes:-

- Quantity shown Schedule "A" is approximate and is inserted as guide only. These shall, however, not be varied beyond the limits laid down in condition 7 of IAFW-2249 General Condition of contract.
- The rates and amount of items shown in schedule "A" are to be filled in by the tenderer in Item Rate BOQ only. The rates shall be filled both in figures only.
- Period of completion:-** The entire works of Schedule "A" under this contract shall be completed within **365 days** from the date of commencement of work as per work order No. 1, which will be generally within one month of the date of issue of acceptance letter.
- Design and Drawings:-** The rate to be quoted by the tenderer in this schedule "A" shall be deemed to include for the provision of Design and drawing (including Architectural drawing) of the building including Pre-Engineered Steel building and proof check shall be carried out from IIT/NIT. The contractor shall not be entitled for any claim on account of design, drawing and proof check.

Signature of Contractor

For Accepting Officer

5. **Approval of building permit :-** The rate to be quoted by the tenderer in this schedule "A" shall be deemed to include the approval of Building permit as per Royal Bhutan Building rules 2018 from Dept. of Urban Development & Housing Ministry. The contractor shall not be entitled for any claim on account of approval of building from above Ministry.
6. **Immigration Rules** – As per policy in vogue, immigration clearance has to be done in Royal Kingdom of Bhutan for the workers/staff of contractor and will be the sole responsibility of the contractor at his own cost.
7. **Standard specifications** – The work has been proposed based on BS codes. Hence the specifications of BS codes should be followed. If certain item of work are not covered in BS code, relevant IS codes or CPWD specifications as well as MoRT&H for Roads & Bridges latest revision may be considered.
8. **Model of project** – One No of 3D model with scale of 1:250 and Soft copy of 3D Model Walk through shall be prepared by the Contractor and display at suitable place at HQ CE(P) Dantak. The contractor shall not be entitled for any claim on account of above 3D Model and Walk through.
9. **Additional Work** – Any item of work not included in tender document but the execution/procurement of the same is mandatory, in such cases BS Code as well as prevailing market rates approved by the E-I-C and OC Contract shall be applicable.
10. **Original Invoice** – Original invoice or bill of each stores procured for the project should be produced to verify its correctness/genuineness.
11. Any drawing mentioned in the tender documents/particular specifications but it is inadvertently not included in the list of drawings, shall also be deemed to form of the part of the contract and tenderer may see such drawing/details in the office of Accepting Officer/concerned OC Contracts and shall be supplied by Deptt.
12. The layout of work as indicated in site plan/layout plan is tentative and may be varied where necessary at the discretion of the OC Contract. The contractor shall not be entitled for any claim on account of any such variation.
- 13.. The rates to be quoted by the tenderer in this schedule "A" shall be deemed to include for the provision of all labour and materials, loading and unloading of materials and transportation if required, tools, plant, equipment and tackle, process, operations and specific requirements details in this schedule in the special condition, particular specification and elsewhere in this tender documents and for the full, entire and final completion of the work in accordance with the provision of these tender documents.
14. The rates quoted by the contractor shall be deemed to be inclusive of all taxes (including GST on materials, GST on Work Contracts, Turnover Tax, Service Tax, Labour Welfare Cess/Tax etc) duties, Royalties, Octroi, State Entry tax & other levies payable under the respective statutes. No re-imbursement/refund for variation in rates of taxes, duties, royalties, Octroi, State Entry tax & other levies, and or imposition/abolition any new/existing taxes, duties, Royalties, Octroi, State Entry Tax & other levies shall be made except as provided in Special Condition .

15. The rates to be quoted by the tenderer in respect of these works shall be deemed to include for all minor details of construction which are obviously and fairly intended and which may not have been specifically mentioned in the tender documents but which are essential for satisfactory execution and completion of work. In case of difference of opinion between the OC Contract and the Contractor as to what constitutes a minor detail of construction, the decision of Accepting Officer shall be final and binding.

16. Rates to be quoted by the contractors shall be deemed to include for all items of work as described, specified in particular specifications and on drawing.

17. The rates to be quoted by the contractor for various items shall include for "material and labour"/ "Supply and fix", connecting, Jointing, Testing and Commissioning complete unless otherwise specifically mentioned therein.

18. The amount of contract is not firm but shall be treated as the contract sum as referred to in condition 1 (n) of IAFW-2249.

19. Work shall be executed at **AT HQ CE(P) Dantak, Thimphu, Bhutan**

20. Measurements of work done shall be as per units of items given in Schedule 'A' and this mode of measurement shall taken as per Clause 113 of MORT&H Specification (vth revision). The rate be quoted considering Clause 114 of MORT&H Specifications (vth revision).

21. Unit RM, mm, cum or CM, Sqm, Kg and Quintal or Qtl wherever mentioned in the tender documents denotes the unit, Running Metre, Millimetre, Cubic Metre, Square Metre, kilogram and Quintal respectively.

22. The works under this contract will be carried out within the working hours as per the directions of Accepting Officer or the officer so detailed by him for administration of this contract.

23. The security will be arranged by the contractor for his personnel and equipment during the execution of work. No compensation will be paid by BRO on account of any loss/damage to personnel, property, veh/eqpt/plant of contractor during execution of work or on any account.

24. Site for execution of work shall be handed over on date of commencement of the work as indicated in the work order No 1. In case it is not possible for the department to hand over the entire site on the date of commencement and certain portion of the site is handed over later on then contractor shall make his planning/deployment of resources accordingly and no claims of whatsoever nature on this account shall be entertained.

25. The tender will be considered for acceptance as a whole and not in parts.

26. The rates shall be filled in figures only in the provided column in Item Rate BOQ.

Name of work : “DESIGN AND CONSTRUCTION OF AUDITORIUM PORTAL STRUCTURE AS PER BHUTANESE DESIGN WITH VERANDAH OF SIZE 36.00 X 17.60 MTR USING PEB TECHNOLOGY AND ALLIED WORKS, PROVIDING AND ERECTION OF PREFABRICATED SHELTER OF SIZE 16.581 MTRX7.541 MTRX2.7 MTR HEIGHT WITH VERANDAH 1.5 MTR FOR SIGNAL SECTION INCLUDING ALLIED WORK, PROVIDING AND ERECTION OF PREFABRICATED SHELTER OF SIZE 14.64 MTR X 6.10 MTR X 2.7 MTR HEIGHT WITH VERANDAH PROJECTION OF 4X 3 MTR FOR QTR GUARD AND ALLIED WORKS AND DISMANTLING OF EXISTING BUILDING (QTR GUARD,SIGNAL SECTION & STORES CUM GEN SET ROOM) AT HQ CE(P) DANTAK UNDER 102 RCC/19 BRTF PROJECT DANTAK INSIDE BHUTAN: JOB NO.60/344”.

Schedule ‘A’/BOQ

S/No	Description	A/U	Approximate No. of units	Unit Rate (Rs)	Total (Rs)	Period of completion
1	2	4	5	6	7	8
1.01	Design and construction of auditorium portal structure as per Bhutanese design with verandah of size 36.00 x 17.60 mtr using peb technology including sound system and allied works as per layout plan attd.	Sqm	655.20	Rs..... Rupees.....	Rs..... Rupees...	12 Months from the date of commencement be indicated in Work order.
1.02	Providing and Erection of Prefabricated shelter of size 16.581 mtr x 7.541 mtr x 2.7 mtr height with verandah 1.5 mtr for signal section and allied works as per layout plan attd.	Sqm	159.60	Rs..... Rupees.....	Rs..... Rupees...	
1.03	Providing and Erection of Prefabricated shelter of size 14.64 mtr x 6.10 mtr x 2.7 mtr height with verandh projection of 4x 3 mtr for qtr guard and allied works as per layout plan attd.	Sqm	101.30	Rs..... Rupees.....	Rs..... Rupees...	

Signature of Contractor

For Accepting Officer

Schedule 'A'/BOQ Contd

1.04	Dismantling of existing building (Signal section, Qtr Guard & Stores cum Genset room) at HQ CE(P) Dantak.	Sqm	121.48	Rs..... Rupees.....	Rs..... Rupees...	
1.05	Misc works like R/wall , Drains, Steps, Hand rails, etc. as per layout plan atttd. Marking of Lawn Tennis court of size 23.77 mtrx10.97 mtr, Badminton court of size 13.40 mtr x 6.10 mtr and Basket ball court of size 28.70 mtr x 15.20 mtr and supply of quality moveable basket ball hoop and detachable post and net for lawn tennis.	LS	LS	Rs..... Rupees.....	Rs..... Rupees...	
	Rs..... Rupees.....			Rs..... Rupees.....		

Signature of Contractor

For Accepting Officer

SCHEDULE ' B'**ISSUE OF MATERIAL ETC TO THE CONTRACTOR**

(See Condition 10 of General Conditions of Contract)

Name of Work: "DESIGN AND CONSTRUCTION OF AUDITORIUM PORTAL STRUCTURE AS PER BHUTANESE DESIGN WITH VERANDAH OF SIZE 36.00 X 17.60 MTR USING PEB TECHNOLOGY AND ALLIED WORKS, PROVIDING AND ERECTION OF PREFABRICATED SHELTER OF SIZE 16.581 MTRX7.541 MTRX2.7 MTR HEIGHT WITH VERANDAH 1.5 MTR FOR SIGNAL SECTION INCLUDING ALLIED WORK, PROVIDING AND ERECTION OF PREFABRICATED SHELTER OF SIZE 14.64 MTR X 6.10 MTR X 2.7 MTR HEIGHT WITH VERANDAH PROJECTION OF 4X 3 MTR FOR QTR GUARD AND ALLIED WORKS AND DISMANTLING OF EXISTING BUILDING (QTR GUARD,SIGNAL SECTION & STORES CUM GEN SET ROOM) AT HQ CE(P) DANTAK UNDER 102 RCC/19 BRTF PROJECT DANTAK INSIDE BHUTAN: JOB NO.60/344".

Srl No	Particulars	Rate at which Material will be issued to the contractor		Place of issue by Name	Remarks
		Unit	Rate (Rs)		
Nil					

(Signature of the Contractor)

EE (C)
SW
For Accepting Officer

Signature of Contractor

For Accepting Officer

SCHEDULE 'C'**LIST OF TOOLS AND PLANT (OTHER THAN TRANSPORT) WHICH WILL BE HIRED TO THE CONTRACTOR**

(See Condition 15, 34 & 35 of General Conditions of Contracts IAFW-2249)

NAME OF WORK: "DESIGN AND CONSTRUCTION OF AUDITORIUM PORTAL STRUCTURE AS PER BHUTANESE DESIGN WITH VERANDAH OF SIZE 36.00 X 17.60 MTR USING PEB TECHNOLOGY AND ALLIED WORKS, PROVIDING AND ERECTION OF PREFABRICATED SHELTER OF SIZE 16.581 MTRX7.541 MTRX2.7 MTR HEIGHT WITH VERANDAH 1.5 MTR FOR SIGNAL SECTION INCLUDING ALLIED WORK, PROVIDING AND ERECTION OF PREFABRICATED SHELTER OF SIZE 14.64 MTR X 6.10 MTR X 2.7 MTR HEIGHT WITH VERANDAH PROJECTION OF 4X 3 MTR FOR QTR GUARD AND ALLIED WORKS AND DISMANTLING OF EXISTING BUILDING (QTR GUARD,SIGNAL SECTION & STORES CUM GEN SET ROOM) AT HQ CE(P) DANTAK UNDER 102 RCC/19 BRTF PROJECT DANTAK INSIDE BHUTAN: JOB NO.60/344".

Srl No	Quantity/ Particulars	Details of crew supplied	Hire charges per unit per working day	Stand by charges per unit per off day	Place of issue by name	Remarks
1	2	3	4	5	6	7
--- NIL ---						

SCHEDULE 'D'**TRANSPORT TO BE HIRED TO THE CONTRACTOR**

(See Conditions 16 & 35 of General Conditions of Contract IAFW-2249)

NAME OF WORK"DESIGN AND CONSTRUCTION OF AUDITORIUM PORTAL STRUCTURE AS PER BHUTANESE DESIGN WITH VERANDAH OF SIZE 36.00 X 17.60 MTR USING PEB TECHNOLOGY AND ALLIED WORKS, PROVIDING AND ERECTION OF PREFABRICATED SHELTER OF SIZE 16.581 MTRX7.541 MTRX2.7 MTR HEIGHT WITH VERANDAH 1.5 MTR FOR SIGNAL SECTION INCLUDING ALLIED WORK, PROVIDING AND ERECTION OF PREFABRICATED SHELTER OF SIZE 14.64 MTR X 6.10 MTR X 2.7 MTR HEIGHT WITH VERANDAH PROJECTION OF 4X 3 MTR FOR QTR GUARD AND ALLIED WORKS AND DISMANTLING OF EXISTING BUILDING (QTR GUARD,SIGNAL SECTION & STORES CUM GEN SET ROOM) AT HQ CE(P) DANTAK UNDER 102 RCC/19 BRTF PROJECT DANTAK INSIDE BHUTAN: JOB NO.60/344".

Srl No.	Quantity	Particulars	Rate per Unit per working day	Place of Issue by Name	Remarks
1	2	3	4	5	6
-----NIL-----					

(Signature of the Contractor)

EE (C)
SW
For Accepting Officer

Signature of Contractor

For Accepting Officer

TENDER

To,

The President of India

Through the Chief Engineer

Project DANTAK*(*Referred to also as Accepting Officer elsewhere in the tender documents).

Having examined and perused the following documents forming part of tender documents:-

1. Particular/technical specifications.
2. Drawings detailed in the list of drawings/specifications/other tender documents.
3. Schedule 'A', 'B', 'C' & 'D' attached here to
4. Special Conditions of the Contract
5. General Conditions of Contracts IAFW-2249 (1989 Print) including amendments 1 to 40 and errata No 1 to 20.
6. All other documents forming part of tender documents

Should this tender be accepted, I/we agree: -

To execute all the works referred to in the said documents up to the terms and conditions contained or referred to therein at the rates contained in the aforesaid Schedule 'A' or at such other rates to be fixed under the provision of condition 62 of IAFW-2249 and to carry out such deviations as may be ordered vide condition 7 of General Condition of Contracts up to maximum of **10 percent** and further agree to refer all disputes as required by condition **70** of the General Conditions of the Contract (IAFW-2249) to the Sole Arbitration of a serving Engineer Officer to be appointed by **the Director General Border Roads, New Delhi or in his absence, by the officer officiating as Director General Border Roads**, whose decision shall be final, conclusive and binding. However, in case of disputes with **PSE** and or **PSU** the same will be referred to a Sole Arbitrator to be appointed by Secretary, Bureau of Public Sector Enterprises (refer Special condition **22** of tender documents).

Signature of Contractor

in the capacity of _____

duly authorized to sign the tender for and on behalf of
(Name in Block letters)

M/s _____

Witness:

Address _____

(In Block letters)

Postal address: - _____

Signature of Contractor

For Accepting Officer

ACCEPTANCE

_____ alterations have been made in this documents and as evidence that these alterations were made before the execution of this contract agreement, they have been initialed by the contractor and Shri _____, HQ CE (P) DANTAK. The said Officer(s) is/are hereby authorised to sign and initial on my behalf the documents, forming part of the contract on my behalf.

The above tender was accepted by me on..... day of 201 , on behalf of the President of India for the contract sum of Rs. _____ (Rupees _____ Only) at the item rates quoted in Schedule 'A' in favour of _____

Signature

Chief Engineer
Project Dantak
Accepting Officer
For and on behalf of the President of
India
Signed this ____ day of 2020

LIST OF PREFERRED MAKES FOR CIVIL WORKS

Sr. No	Name of Product/ Material	Preferred Brand Names
1	ORDINARY PORTLAND CEMENT (GREY) (43 GRADE)	ACC, ULTRATECH, VIKRAM, SHREE CEMENT, AMBUJA, JAYPEE CEMENT, CENTURY CEMENT & J.K. CEMENT.
2	PORTLAND POZZOLONA CEMENT (GREY) (43 GRADE)	ACC, ULTRATECH, VIKRAM, SHREE CEMENT, AMBUJA, JAYPEE CEMENT, CENTURY CEMENT & J.K. CEMENT
3	WHITE CEMENT	J.K.WHITE, JAIPUR SUPREME PACKAGING PVT. LTD., ULTRATECH CEMENT LIMITED.
4	REINFORCEMENT STEEL	SAIL, TATA STEEL LTD., RINL, JINDAL STEEL & POWER LTD. AND JSW STEEL LTD.
5	ADMIXTURES	CICO, FAIRMATE, HIND PLAST SUPER, SUPAPLAST, SIKKA
6	WATER PROOFING COMPOUND	FOSROC, CICO, KRYTON BUILDMAT, PIDILITE, PRIYA ENTERPRISES, FAIRMATE
7	READY MIX CONCRETE	M/S L&T CONCRETE (LAFARGE), ULTRATECH CEMENT LTD., ACC CONCRETE LTD., RMC READY MIX (INDIA) PVT. LTD.
8	AUTOCLAVED AERATED BLOCKS	BILTECH, ECO GREEN, FINECRETE, J.K. LAKSHMI CEMENT LTD.
9	POLYMER MODIFIED ADHESIVE FOR AAC BLOCKS	MYK LATICRETE, FERROUS CRETE, ARDEX ENDURA, ULTRATECH, SIKKA
10	FACTORY MADE PANELLED & WIRE GAUGE WOODEN DOOR/ WINDOW SHUTTERS.	M/S JAIN WOOD INDUSTRIES, KUTTY DOORS, SAMRAT PLYWOOD, NEW JAGDAMBA DOORS, MERINO, KITPLY, AS TIMBER
11	FLUSH DOOR SHUTTERS	KUTTY FLUSH DOOR, SAMRAT LAMINATE, NATIONAL PLYWOODS, JAIN WOOD INDUSTRIES, MERINO, KITPLY, CENTURY, AS TIMBER.
12	BLOCK BOARD	MERINO, KITPLY, NATIONAL, ARCHIDPLY, CENT PLY, JAYNA, CENTURY.
13	LAMINATES	SAMRAT, VIRGO, MERINO, ARCHIDPLY, CENTURY LAMINATES, GREENLAM
14	PRE-LAMINATED PARTICLE BOARD	ARCHIDPLY, CENTURY PLY BOARDS, BALAJI ACTION BUILDWELL, ECOBOARD

Signature of Contractor

For Accepting Officer

15	PARTICLE BOARD (MEDIUM DENSITY)/ VENEERED PARTICLE BOARD	CENTURY PLYBOARDS (INDIAN) LTD., BALAJI ACTION BUILDWELL, EVERGREEN BOARDLAM, ECOBOARD INDUSTRIES LTD.
16	PRE-LAMINATED MEDIUM DENSITY FIBRE BOARD	CENTURY PLYBOARDS, GREEN PLY, BALAJI ACTION BUILDWELL
17	OMS/ MS DOOR FITTINGS	ASHISH, AGGARWAL STEELS, DOOR DEVICES MANUFACTURING COMPANY, MANU ENGINEERING COMPANY, M.C. MOWJEE & CO., SHRI GANPATI DOORS
18	HYDRAULIC DOOR CLOSER	HARDWYN, EVEREST, HYPER, UNIVERSAL, SUDARSHAN INDUSTRIES
19	STAINLESS STEEL DOOR/ WINDOW HARDWARE FITTINGS (FIRE RATED AND NON-FIRE RATED)	DORMA, ASSA ABLOY, GEZE, D-LINE, GODREJ, HAFELE
20	ANODISED/ ZINC ALLOY/ ALUMINIUM HARDWARE DOOR/ WINDOW FITTINGS	PULSE, SAVIO, HOPPE, ALUTECH
21	FRP DOOR FRAMES & SHUTTERS	ASHISH INDUSTRIES, JAYNA, SAINIK (CENTURY PLYWOOD), SELECTED PRODUCTS CO.
22	UPVC WINDOWS/ DOORS	VEKA, FENESTA, REHAU, ALUPLAST
23	UPVC WINDOW/ DOOR HARDWARE FITTINGS (ZINC ALLOY)	PULSE, HOPPE, GU, ROTO
24	WIDOWS BLINDS	VISTA, MAC, HUNTER, DOUGLAS, DE-DÉCOR
25	STRUCTURAL STEEL SUCH AS MS FLATS, SQ.BARS ANGLES ETC.	SAIL, TATA STEEL, RINL, JINDAL STEEL & POWER LTD. AND JSW STEEL LTD.
26	FIRE RATED DOORS (METTALIC/ NON METTALIC)	KUTTY DOORS, NAVAIR, PROMAT, SYNERGY THRISLINGTON
27	HOT-ROLLED STEEL SECTIONS FOR MS DOORS, WINDOWS AND VENTILATORS	NAV DURGA STEEL CORPN, CRM STEELS P. LTD, SHYAM ISPAT UDYOG, VIMAL, SHIV
28	MILD STEEL DOOR, WINDOWS & VENTILATORS MANUFACTURERS	FRIENDS MANUFACTURING COMPANY, KOTKAPURA, PD INDUSTRIES, SHAKTI INDUSTRIES, STEELMAN INDUSTRIES, SKS STEEL INDUSTRIES, SHIVAM
29	PRESSED STEEL DOOR FRAMES MANUFACTURERS	KRISHNA STEEL FABRICATOR SIRSA, LAXMI STEEL WORKS BAHADURGARH, ASHISH INDUSTRIES GHAZIABAD, ASHWANI & SONS.
30	HOLLOW STEEL SECTIONS	JINDAL INDUSTRIES HISAR, TATA STEEL, STEEL & METAL TUBES (INDIA) LTD.
31	STEEL TUBES FOR STRUCTURAL STEEL	JINDAL INDUSTRIES HISAR, TATA STEEL, STEEL & METAL TUBES (INDIA) LTD.
32	DASH/ ANCHORING FASTENERS, BOLTS, SCREWS AND NUTS.	HILTI, FISCHER, CKW, ATUL, PRIYA
33	STAINLESS STEEL RAILING	DORMA, KICH, OM STEEL, D-LINE.

34	CHEQUERRED PRE-CAST CC TILES	NTC, SWASTIK TILE, POOJA
35	CERAMIC TILES	CONCRETE FABRICATORS, GTC
36	VITRIFIED TILES	SOMANY, ORIENTBELL, RAK, ASIAN
37	ADHESIVE/ GROUTING FOR USE WITH TILES	GRANITO INDIA LTD.
38	WOODEN LAMINATE FLOORING	SOMANY, ORIENTBELL, RAK, ASIAN
39	UNPLASTICISED RIGID PVC PIPE & FITTINGS	GRANITO INDIA LTD.
40	GALVANISED STEEL SHEETS (UNCOATED & PRE-COATED)	FERROUS CRETE, MYK LATICRETE, ARDEX EDURA, FAIRMATE, DURA BUILD CARE, SIKKA
41	ROOFING SHEETS (GALVALUME)	PERGO, KRONOTEX, FLORENCE, UNITEX, ACTION TESA
42	FALSE CEILING- GYPSUM	SUPREME, FINOLEX, PRINCE, KISAN, DIPLAST
43	FALSE CEILING- METAL	SAIL, TATA, BHUSHAN POWER STEELS, JINDAL
44	FALSE CEILING- CALCIUM SILICATE	CRIL, LLOYDS, INTERACH, MULTICOLOR, BHUSHAN POWER STEEL
45	FALSE CEILING-MINERAL FIBRE	SAINT GOBAIN, VANS GYPSUM, USG BORAL, LLYOD
46	ACCOUSTIC: GLASS FIBRE FALSE CEILING AND WOODEN/ FABRIC WALL LINING	ARMSTRONG, DEXUNE, SAINT GOBAIN, HUNTER DOUGLAS.
47	FALSE CEILING-ALUMINIUM POWDER COATED	HILUX, AEROLITE, ARMSTRONG
48	LIGHT WEIGHT GYPSUM PLASTER	ARMSTRONG, DEIKEN, DEXUNE, SAINT GOBAIN.
49	OIL BOUND DISTEMPER/ ACRYLIC DISTEMPER *	ARMSTRONG, DEXUNE, ACCOUSTIBLOK, HIMALYAN ACOUSTICS, ANUTONE
50	INTERIOR EMULSION/ PLASTIC EMULSION *	ARMSTRONG, DEXUNE, SAINT GOBAIN, HUNTER DOUGLAS
51	ACRYLIC SMOOTH EXTERIOR PAINT *	SAINT GOBAIN, ULTRATECH, FERROUS CRETE, USG BORAL.
52	DRY DISTEMPER *	NEROLAC ACRYLIC DISTEMPER, TRACTOR ACRYLIC DISTEMPER (ASIAN PAINTS) , MAXILITE ACRYLIC DISTEMPER (ICI), BISON ACRYLIC DISTEMPER (BERGER) NO.1 PREMIER ACRYLIC DISTEMPER OF SHALIMAR
53	TEXTURED EXTERIOR PAINT *	DULUX ACRYLIC EMULSION/ SOLITAIRE A-1000 (ICI), APCOLITE PREMIUM EMULSION (ASIAN), BEAUTY GOLD (NEROLAC), SILK (BERGER) SUPERLAC ADVANCE ACRYLIC PREMIUM SHALIMAR

54	SYNTHETIC ENAMEL PAINTS *	DULUX HI-GLOSS (ICI), APCOLITE PREMIUM GLOSS (ASIAN), NEROLAC HIGH GLOSS (NEROLAC), LUXOL HI-GLOSS (BERGER) SUPERLAC HIGHGLOSS PREMIUM ENAMEL OF SHALIMAR
55	WOOD PRIMER*	NEROLAC, BERGER, ASIAN PAINTS, ICI, SHALIMAR
56	STEEL PRIMER*	NEROLAC, BERGER, ASIAN PAINTS, ICI, SHALIMAR
57	EXTERIOR WALL PRIMER*	EXTERIOR NEROLAC PRIMER, EXTERIOR BERGER PRIMER, EXTERIOR ASIAN PAINTS PRIMER, EXTERIOR ICI PRIMER, ACRYLIC EXTERIOR OF SHALIMAR
58	WALL PUTTY (WHITE CEMENT BASED)	BIRLA WALL CARE, JK WHITE, SARA WALL PUTTY
59	POLYMER MODIFIED SELF CURING PLASTER	MYK LATICRETE, FERROUS CRETE, ARDEX ENDURA, ULTRATECH
60	PAVER/ GRASS PAVER BLOCKS & KERB STONES	SHIV SHAKTI, PUNEET TILES, NATIONAL TILES CORPORATION, SARAL IMPEX, BALAJI TILES, METRO PAVERS, MGM INFRA, POOJA CONCRETE FABRICATORS.
61	VITREOUS CHINA SANITARY WARE	HINDWARE, CERA, PARRYWARE, JOHNSON PEDDER, NEYCER
62	PLASTIC FLUSHING CISTERN FOR WC AND URINALS	JINDAL, STEEL BIRD, SEEMLINE, VIKRAM PLASTIC, PRAYAG POLYMERS (P) LTD.
63	PLASTIC SEAT COVER OF W.C.	AJANTA POLYMERS, JINDAL MALPINE, JAIN POLYMERS
64	STAINLESS STEEL SINK	ALLEX, JAYNA, JMD INTERNATIONAL, STEEL CRAFT
65	MIRROR GLASS	ATUL, MODIGUARD, GOLDEN FISH
66	CENTRIFUGALLY CAST (SPUN) IRON PIPES	NECO, BENGAL IRON, DURGAPUR ISPAT UDYOG, SINGHAL IRON FOUNDRY (SKF), KAPILANSH DHATU UDYOG PVT. LTD., HIF, BINAY UDYOG
67	HUBLESS CENTRIFUGALLY CAST (SPUN) IRON PIPES	NECO, RAJ PATTERN MAKERS & FOUNDERS, GOLA STEEL AND CASTING
68	CP FITTINGS & ACCESSORIES	JAQUAR, HINDWARE, PRIMA, CERA, JAL
69	BRASS STOP & BIB COCK	DHAWAN SANITARY UDYOG, JAINKO, SHAKTI, VARDHMAN INDIA PRODUCTS
70	FERRULES FOR WATER SUPPLY	HIND METAL WORKS, KRITIKA, DRP, SHAKTI
71	BALL COCK WITH ROD	RESP FAUCET INDUSTRIES, DHAWAN SANITARY UDYOG, NEW METAL WORKS, KPR, PRAYAG.
72	POLYETHYLENE WATER STORAGE TANK	SINTEX, VECTUS, KAVERI

73	STONEWARE PIPES & GULLY TRAPS	SORKHI INDUSTRIES, RK INDUSTRIES, NAVNEET, MOLI CERAMICS, OCR, ANAND
74	PRE-CAST CONCRETE PIPES (NON-PRESSURE)	RAMNIK, BFSP, JAGDAMBEY SPUN PIPE, GURKIRPA SPUN PIPES
75	GI PIPE	JINDAL (HISSAR), TATA, PRAKASH SURYA, BST, BHUSHAN POWER STEEL
76	GI FITTINGS	UNIK, AVR, ZOLOTO, SANT, HBI, C-BRAND
77	C-PVC PIPE	PRINCE, JINDAL (FLOWKEM), ASTRAL, AJAY POLYMERS, SUPREME, ASHIRVAD, FINOLEX
78	WATER METER	CRESCENT, PRINCE, FEDREL, DASHMESH, NBESON, SANT
79	GUN METAL GATE, GLOBE, CHECK VALVES & NON-RETURN VALVES	LEADER, ZOLOTO, SANT, RAJAN METAL INDUSTRIES, H.B. METALS, HVI
80	CENTRIFUGALLY CAST (SPUN) IRON PIPES (CLASS LA).	TRU FORM ENGINEERS, KAPILANSH, ELECTROSTEEL, HITECH METAL CASTINGS.
81	C.I. SLUICE VALVES & REFLEX VALVES	ZOLOTO INDUSTRIES, SANT VALVES, AMCO INDUSTRIES, KIRLOSKAR, RATAN INDUSTRIAL CORPORATION, HVI
82	STAINLESS STEEL PIPES & FITTINGS	JINDAL STAINLESS STEEL, OM STEEL GROUP, V STEEL, VIEGA, RAMPART INDIA PVT. LTD.,
83	DUCTILE IRON PIPES & FITTINGS	JINDAL SAW LTD, ELECTRO STEEL, CHANDRANCHAL INFRA, ELECTROTHERAM
84	C.I./ D.I. MANHOLE COVERS & FRAMES	SWASTIKA ENTERPRISES, BENGAL IRON CORPORATION, NECO, BINAY UDYOG, CHANDERANCHAL
85	WATER REPELLANT SILANE CHEMICAL	PIDILITE, FERROUS CRETE, ARDEX
86	ALUMINIUM SECTIONS	ENDURA
87	BASIC/ RAW GLASS	HINDALCO, JINDAL, INDIAN ALUMINIUM CO.
88	APPROVED PROCESSORS FOR PERFORMANCE GLASS/ TOUGHENED GLASS/ HERMETICALLY SEALED/ LACQUERED GLASS etc.	SAINT GOBAIN, ASAHI, MODI, GOLD PLUS GLASS, PILINGTON
89	STRUCTURAL GLAZING	ART & GLASS, MIRAGE TOUGHENED GLASSES (P) LTD., AAR PAR GLASS, VERMA GLASS.
90	FAÇADE GLASS OPENABLE FITTINGS	ALCOB, ALUPRO, ALUPLAX, SP
91	GLASS FAÇADE/ GLASS CANOPY WITH SS SPIDER FITTINGS	FABRICATORS, SAINT GOBAIN, GLAVERBEL.
92	FRAMELESS GLAZING WITH SS PATCH FITTINGS	ALUALPHA, SAVIO, HOPPE, ALUTECH
		ALCOB, ALUPRO, ALUPLAX, SP
		FABRICATORS, SAINT GOBAIN, GLAVERBEL.
		DORMA, ASSA ABLOY, GEZE, D-LINE

* Batch test certificate of each lot to be submitted by contractor along with supply of material at site.

Signature of Contractor

For Accepting Officer