NEPAL ELECTRICITY AUTHORITY

(An Undertaking of Government of Nepal)

Distribution and Consumer Services Directorate

Kathmandu Regional Office

Dolakha Distribution Centre

NATIONAL COMPETITIVE BIDDING (NCB)

BIDDING DOCUMENTS
FOR

Installation/Erection, Commissioning & Testing and Handover of 11/0.4/0.23 kv Distribution Line in Dadakharka, Boch, Dudhpokhari, Pawati, Shailungeshwor, Phasku, Bhedpu, Bhusapheda, Kabre, Chetrapa, Mirge, Katakuti, Jhule, Ghyangsukatokar, Magapauwa, Bhirkot, Gairimudi, Melung, Namdu, Jugu, Mali, Suspachemawati, Khopachaku, Babare, Lamidada, Chilankha, Jhyaku, Laduk, Bulung, Kalinchowk, Suri, Orang, Chankhu, Sundrawati, Sunkhani, Marbu, Bigu, Alampu VDCs and Jiri Municipality of Dolakha District.

TENDER NO: *DDC/073/074/Line-01*

Nepal Electricity Authority
Distribution and consumer Services Directorate
Kathmandu Regional Office
Durbar Marg, Kathmandu, Nepal
Tel: +977-1-4153168
Fax: +977-1-4153223
Dolakha Distribution Centre Office
Tel: +977-49-421773
Fax: +977-49-421773

Ashar, 2074

Table of Contents

Section I- Invitations of Bids (IFB)---------- I

Section II- Instructions to Bidders (ITB) ---------- II-1

Section III -Sample Forms of Bid (SFB) ---------- III-1

Section IV -General Conditions of Contract (GCC) ---------- IV-1

Section V -Special Conditions of Contract (SCC) ---------- V-1

Section VI -Sample Forms of Bid Securities ---------- VI-1

Section VII - Supplementary Conditions of Contract (Su CC) ---------- VII-1

Section VIII -Price Schedule/Technical Preambles ---------- VIII-1

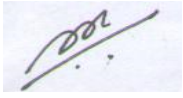
Section IX - Construction Standard and Drawings---------- IX-1

Invitation For Bids

(First date of Publication- Jestha 18,2074)

1. Nepal Electricity Authority (NEA), Dolakha Distribution Center, Kathmandu Regional Office, Distribution and Consumer Services Directorate invites wax sealed tenders from registered manufacturers, Contractors and Suppliers for:
   Tender No. DDC/073/074/Line-01: Installation/Erection, Commissioning & Testing and Handover of 11/0.4/0.23 kv Distribution Line in Dadakharka, Boch, Dudhpokhari, Pawati, Shailungeshwor, Phasku, Bhedpu, Bhusapheda, Kabre, Chetrapa, Mirge, Katakuti, Jhule, Ghyangsukatokar, Magapauwa, Bhirkot, Gairimudi, Melung, Namdu, Jugu, Mali, Suspachemawati, Khopachaku, Babare, Lamidada, Chilankha, Jhyaku, Laduk, Bulung, Kalinchowk, Suri, Orang, Chankhu, Sundrawati, Sunkhani, Marbu, Bigu, Alampu VDCs and Jiri Municipality of Dolakha District.
2. The mode of procurement is through National Competitive Bidding (NCB) Procedure.
3. Interested eligible Bidders may obtain further information pertaining to bid and e-bidding form NEA website www.e-nea.org.np for their reference.
4. A complete set of Bid Documents may be purchased during office hours on all working days from Kathmandu Regional Office , Durbarmarg, Kathmandu and Dolakha Distribution Center by any interested Bidder from **Jestha 18,2074** onwards upon submission of a written application to address given below accompanied by a bank voucher of the amount (non refundable) specified in Clause 6 below towards the cost of the Bid Documents deposited in NEA, Dolakha Distribution Centre Deposit Account Number 4006017500001 at Nabil Bank, Charikot Branch, Dolkha, Nepal or by an account payee bank draft of the same amount issued in favour of NEA. If the specified last date of Bid purchase falls on a public holiday, bid can be purchased on the next working day.Subsequently, the last date of bid submission and opening will be extended by one day.
5. Bidders must produce a notarized copy of the certificates of Vat registration and PAN registration at the time of purchase of Bid Documents.
6. All Bids accompanied by a bid bond in amount & validity period as specified below must be delivered in accordance with the Instructions to Bidders at or before 12:00 hours local time on or before the dates at Kathmandu Regional Office. The Bids shall be opened at 14:00 hours local time on the same date of the Bid submission, in the presence (or without presence) of the authorised representatives of the Bidders who choose to be present at Kathmandu Regional Office. If the specified dates of Bid submission and opening fall on a public holiday, Bid submission and opening shall be done on the next working day. Late bids will be rejected.

S.No	Tender No.	Last Date of Bid Purchase	Last Date of Bid Submission	Cost of Bid Document (NRs.)	Bid Bond		Cost Estimate(with VAT) NRs
					Amount	Validity Period	
1	*DDC/073/ 074/Line-01*	Ashar 16, 2074	Ashar 18, 2074	3,000.00	NRs. 84000	120 days from the Last date of bid submission	3214607.509



7. NEA shall not be responsible for any costs or expenses incurred by bidders in connection with the preparation or submission of bids.
8. NEA reserves the right to accept or reject any Bid, partly or wholly, or cancel the Bids altogether, without assigning any reason whatsoever.
9. Interested eligible Bidders may obtain further information from the Office given below:

Nepal Electricity Authority
Distribution and Consumer Services Directorate
Kathmandu Regional Office
Durbar Marg, Kathmandu, Nepal
Tel: +977-1-4153168
Fax: +977-1-4153223
Dolakha Distribution Centre Office
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SECTION II

INSTRUCTIONS TO BIDDERS

A. General

1. Scope of Bid

1.1 The Employer as defined in the Bidding Data invites Bids for the construction of Works, as described in the Bidding Data. The name and identification number of the Contract are provided in the Bidding Data.

The successful Bidder will be expected to complete the Works by the Intended Completion Date specified in the Bidding Data and Special Conditions of Contract (SCC).

2. Source of Funds

2.1 The Source of fund is Government of Nepal (GoN).

3. Eligible Bidders

3.1 This invitation for Bids is open to all registered Bidders with qualifications as described in the Bidding Data.

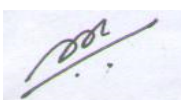
3.2 All Bidders shall provide in Section III, Forms of Bid and Qualification Information, a statement that the Bidder (including all members of a joint venture and subcontractors) is not associated, nor has been associated in the past, directly or indirectly, with the consultant or any other entity that has prepared the design, specifications and other documents to be used for the Contract. A firm that has been engaged by the Employer to provide consulting services for the preparation or supervision of the Works, and any of its affiliates, shall not be eligible to Bid.

3.3 Government-owned enterprises may only participate if they are legally and financially autonomous, operate under commercial law, and are not a dependent agency of the Employer.

4. Qualification of the Bidder

4.1 All Bidders shall provide in Section III, Forms of Bid and Qualification Information, a preliminary description of the proposed work method and schedule, including drawings and charts, as required in the Qualification Information.

4.2 In the event that prequalification of potential Bidders has been undertaken, only Bids from prequalified Bidders will be considered for award of Contract. These qualified



Bidders should submit with their Bids, unless otherwise stated in the Bidding Data any information updating their original prequalification applications or, alternatively, confirm in their Bids that the originally-submitted prequalification information remains essentially correct as of the date of bid submission. The update or confirmation should be provided in Section III.

4.3 If the Employer has not undertaken prequalification of potential Bidders, all Bidders shall include the following information and documents with their Bids in Section III, unless otherwise stated in the Bidding Data:

a. Copies of original documents defining the constitution or legal status, place of registration, and principal place of business; written power of attorney of the signatory of the bid to commit the Bidder;

b. Total monetary value of construction work performed for each of the last ten years;

c. Experience in works of a similar nature and size for each of the last ten years, and details of work under way or contractually committed; and clients who may be contacted for further information on those contracts (to comply with this requirement, works cited shall be at least 80% complete);

d. Major items of construction equipment proposed to carry out the Contract;

e. Qualifications and experience of key site management and technical personnel proposed for the Contract;

f Reports on the financial standing of the Bidder, such as profit and loss statements and auditor's reports for the past ten years;

g. Evidence of adequacy of working capital for this Contract (access to line(s) of credit and availability of other financial resources);

h. Authority to seek references from the Bidder's bankers;

i. Information regarding any litigation, current or during the last five years, in which the Bidder is involved, the parties concerned, and disputed amount; and

j. Proposals for subcontracting components of the Works amounting to more than 10 percent of the Contract Price.

4.4 Bids submitted by a joint venture of two or more firms as partners, limitation of number of partners as specified in Bidding Data, shall comply with the following requirements, unless otherwise stated in the Bidding Data:

a. The bid shall include all the information listed in Sub-Clause 3 above for each joint venture partner;

b. The bid shall be signed so as to be legally binding on all partners;

c. All partners shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms;

d. One of the partners will be nominated as being in charge, authorized to incur liabilities, and receive instructions for and on behalf of any and all partners of the joint venture; and this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the partners; and

e. The execution of the entire Contract, including payment, shall be done exclusively with the partner in charge.

4.5 To qualify for award of the Contract, Bidders shall meet the following minimum qualifying criteria:

a. General Work Experience as a sole prime contractor or management contractor or partner of joint venture association or sub contractor as specified in Bidding Data;

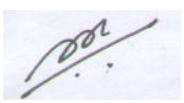
b. Average annual volume of construction work completed as a sole prime contractor or management contractor or partner of joint venture association or sub contractor in the last ten (10) years of at least the amount specified in the Bidding Data;

c. Successful specific experience as prime contractor or management contractor or partner of joint venture association or sub contractor in the construction of at least the number of works, each with a value as specified in Bidding Data of a nature and complexity equivalent to the Works in the last ten years (to comply with this requirement, works cited shall be at least 80 percent complete);

d. Liquid assets and/or credit facilities, net of other contractual commitments and exclusive of any advance payments which may be made under the Contract, of no less than the amount specified in the Bidding Data;

e. A Contract Manager with five years' experience in works of an equivalent nature and volume, including no less than three years as Contract Manager and other personnel as specified in the Bidding Data; and

f. Proposals for the timely acquisition (own, lease, hire, etc.) of the essential equipment in working condition for the contract duration listed in the Bidding Data.



4.6 The figures for each of the partners of a joint venture shall be added together to determine the Bidder's compliance with the minimum qualifying criteria of ITB Sub-Clause 4.5 above. However, for a joint venture to qualify, each of it's partners must meet the qualifying criteria of 4.5 (a); at least the percentage specified in Bidding Data of minimum criteria 4.5(b) and (d) for an individual Bidder and the partner in charge at least the percentage specified in the Bidding Data of minimum criteria 4.5 (b); (c) and (d). Failure to comply with this requirement will result in rejection of the joint venture's bid. Subcontractors' experience and resources will not be taken into account in determining the Bidder's compliance with the qualifying criteria, unless otherwise stated in the Bidding Data.

4.7 The values of Turnover and Specific work experiences pursuant to Sub-Clause 4.5(b) and (c) shall be brought to the current value using the annual inflation rate (National Urban Consumer Price Index; Overall Index) published by Nepal Rastra Bank.

4.8 Domestic Bidders and joint ventures of domestic and foreign Bidders applying for eligibility for a domestic margin of preference in bid evaluation shall supply all information to satisfy the criteria for eligibility as described in Clause 30 of these Instructions to Bidders.

5 One Bid per Bidder

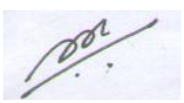
5.1 Each Bidder shall submit only one bid, either individually or as a partner in a joint venture. A Bidder who submits or participates in more than one bid (other than as a subcontractor or in cases of alternatives that have been permitted or requested) shall cause all the proposals with the Bidder's participation to be disqualified.

6 Cost of Bidding

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

7. Site Visit

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



B Bidding Documents

8. Contents of Bidding Documents

8.1 The set of Bidding Documents provided by the Employer comprises the documents listed in the table below and addenda issued in accordance with Clause 10:

Section I:	Invitation for Bids
Section II:	Instructions to Bidders
Section III:	Sample Forms of Bid, Qualification Information, Letter of Acceptance and Agreement
Section IV:	General Conditions of Contract (GCC)
Section V:	Special Conditions of Contract (SCC)
Section VI:	Sample Forms of Securities
Section VII:	Supplementary Conditions of Contract (SuCC)
Section VIII:	Price Schedules with Technical Preambles
Section IX:	Construction Standard and Drawings

The Bidder is expected to examine all instructions, forms, terms, specifications and other information required by the bidding documents. Failure to furnish all information required by the bidding documents or submission of a bid not substantially responsive to the bidding documents in every respect will be at the Bidder's risk and may result in rejection of its bid.

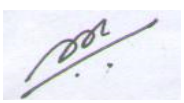
9. Clarification of Bidding Documents

9.1 A prospective Bidder requiring any clarification of the Bidding documents may notify the Employer in writing or by fax at the Employer's address indicated in the Invitation for Bids or Bidding Data. The Employer will respond to any request for clarification received earlier than the number of days prior to the deadline for submission of Bids as specified in the Bidding Data. Written copies of the Employer's response will be forwarded to all purchasers of the Bidding documents, including a description of the inquiry, but without identifying its source.

10. Amendment of Bidding Documents

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

10.2 Any addendum thus issued shall be part of the Bidding documents and shall be communicated in writing or by fax to all purchasers of the Bidding documents. Prospective Bidders shall acknowledge receipt of each addendum by fax to the Employer.



10.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Employer shall extend, as necessary, the deadline for submission of Bids, in accordance with Sub-Clause 20.2 below.

C. Preparation of Bids

11. Language of Bid

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

12. Documents Comprising the Bid

12.1 The bid submitted by the Bidder shall comprise the following:

i. The bid (in the format indicated in Section III including SCC);

ii. Bid Security;

iii. Priced Bill of Quantities;

iv. Qualification Information Form and Documents;

v. Information on eligibility;

vi. Any other materials required to be completed and submitted by Bidders, as specified in the Bidding Data.

13. Bid Prices

13.1 The Contract shall be for the whole works described in scope of works based on the priced Bill of Quantities submitted by the Bidder.

13.2 The Bidder shall fill in rates and prices for all items of the works in Nepali Rupees. Items for which no rate or price is entered shall be deemed covered by the other rates and prices in the Bill of Quantities and shall not be paid by the Employer.

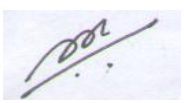
13.3 All duties, taxes and other levies payable by the contractor under the contract shall be included in the rates, prices and total Bid Price submitted by the Bidder.

14. Currencies of Bid and Payment

14.1 The currency of the bid and payment shall be in Nepalese Rupees.

15. Bid Validity

15.1 Bids shall remain valid for the period specified in the Bidding Data.



15.2 In exceptional circumstances, the Employer may request that the Bidders extend the period of validity for a specified additional period. The request and the Bidders' responses shall be made in writing or by fax. A Bidder may refuse the request without forfeiting the Bid Security. A Bidder agreeing to the request will not be required or permitted to otherwise modify the bid, but will be required to extend the validity of Bid Security for the period of the extension, and in compliance with Sub-Clause 16 in all respects.

16. Bid Security

16.1 The Bidder shall furnish, as part of the bid, a Bid Security in Nepalese Rupees in the amount specified in the Invitation for Bids.

16.2 The Bid Security shall, at the Bidder's option, be in the form of earnest money, bank draft or a bank guarantee from a reputable bank in Nepal acceptable to the Employer. The format of the bank guarantee shall be in accordance with the form of Bid Security included in Section VI; other formats may be permitted, subject to the prior approval of the Employer. The Bid Security shall remain valid for a period of 30 days beyond the original validity period for the bid and any period of extension subsequently requested under Sub-Clause 15.2.

16.3 Any bid not accompanied by an acceptable Bid Security shall be rejected by the Employer. The Bid Security of a joint venture must define as "Bidder" all joint venture partners and list them in the following manner: a joint venture consisting of "_____," "_____," and "_____".

16.4 The Bid Security of unsuccessful Bidders will be returned within 30 days of the end of the bid validity period specified in Sub-Clause 15.1.

16.5 The Bid Security of the successful Bidder will be discharged when the Bidder has signed the Agreement and furnished the required Performance Security.

16.6 The Bid Security may be forfeited

a. If the Bidder withdraws the bid after bid opening during the period of bid validity; *or*

b. If the Bidder does not accept the correction of the Bid Price, pursuant to Clause 27; *or*

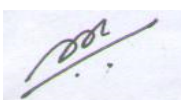
c. in the case of a successful Bidder, if the Bidder fails within the specified time limit to

(i) Sign the Agreement; *or*

(ii) Furnish the required Performance Security.

17. Alternative Proposals by Bidders

17.1 Bidders shall submit offers that comply with the requirements of the Bidding documents, including the basic technical design as indicated in the Drawings and Specifications. Alternatives will not be considered unless specifically allowed in the Bidding Data. If so allowed, Sub-Clause 17.2 shall govern.



17.2 If so allowed in the Bidding Data, Bidders wishing to offer technical alternatives to the requirements of the Bidding documents must also submit a bid that complies with the requirements of the Bidding documents, including the basic technical design as indicated in the Drawings and Specifications. In addition to submitting the basic bid, the Bidder shall provide all information necessary for a complete evaluation of the alternative by the Employer, including design calculations, technical specifications, breakdown of prices, proposed construction methods and other relevant details. Only the technical alternatives, if any, of the lowest evaluated Bidder conforming to the basic technical requirements shall be considered by the Employer.

18. Format and Signing of Bid

18.1 The Bidder shall prepare one original of the documents comprising the bid as described in Clause 12 of these Instructions to Bidders, bound with the volume containing the form of bid, and clearly marked "ORIGINAL." In addition, the Bidder shall submit one copy of the bid clearly marked as "COPY." In the event of discrepancy between them, the original shall prevail.

18.2 The original and a copy of the bid shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as specified in the Bidding Data and shall be attached to the bid. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the bid where entries or amendments have been made shall be initialed by the person or persons signing the bid.

18.3 The bid shall contain no alterations or additions, except those to comply with instructions issued by the Employer, or as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the bid.

18.4 The Bidder shall furnish information as described in the form of bid on commissions or gratuities, if any, paid or to be paid to agents relating to this bid, and to contract execution if the Bidder is awarded the Contract.

D. Submission of Bids

19. Submission, Sealing and Marking of Bids

19.1 The Bidder shall seal the original and a copy of the bid in two inner envelopes and one outer envelope, duly marking the inner envelopes as "ORIGINAL" and "COPY".

19.2 The inner and outer envelopes shall:

a. be addressed to the Employer at the address provided in the Bidding Data;

b. bear the name and identification number of the Contract as defined in the Bidding Data and SCC; and

c. provide a warning not to open before the specified time and date for bid opening as defined in the Bidding Data..

19.3 In addition to the identification required in Sub-Clause 19.2, the outer envelopes shall indicate the name and address of the Bidder to enable the bid to be returned unopened in case it is declared late, pursuant to Clause 21.

19.4 If the outer envelope is not sealed and marked as above, the Employer will assume no responsibility for the misplacement or premature opening of the bid.

20. Deadline for Submission of Bids

20.1 Bids shall be delivered to the Employer at the address specified in the Bidding Data no later than the time and date specified in the Bidding Data.

20.2 The Employer may extend the deadline for submission of Bids by issuing an amendment in accordance with Clause 10, in which case all rights and obligations of the Employer and the Bidders previously subject to the original deadline will then be subject to the new deadline.

21. Late Bids

21.1 Any bid received by the Employer after the deadline prescribed in Clause 20 will be returned unopened to the Bidder.

22. Withdrawal and Modification of Bids

22.1 Bidders may withdraw or modify their Bids after it has been submitted by giving a written notice, duly signed by an authorized representative and shall include a copy of the authorization in accordance with Clause 18.2 before the deadline prescribed in Clause 20. The corresponding modification of the bid must accompany the respective written notice.

22.2 Each Bidder's withdrawal or modification notice shall be prepared, sealed, marked, and delivered in accordance with Clauses 18 and 19, with the outer and inner envelopes additionally marked "WTHDRAWAL" or "MODIFICATION" as appropriate.

22.3 No bid may be modified after the deadline for submission of Bids.

22.4 Withdrawal of a bid between the deadline for submission of Bids and the expiration of the period of bid validity specified in the Bidding Data or as extended pursuant to Sub-Clause 15.2 may result in the forfeiture of the Bid Security pursuant to Clause 16.

22.5 Bidders may only offer discounts to, or otherwise modify the prices of their Bids by submitting bid modifications in accordance with this clause, or included in the original

bid submission. Intended discount offer should always be expressed in percentage to be applied to each unit rate.

E. Bid Opening and Evaluation

23. Bid Opening

23.1 The Employer will open the Bids, including modifications made pursuant to Clause 22, in the presence of the Bidders' representatives who choose to attend at the time and in the place specified in the Bidding Data.

23.2 First envelopes marked "WITHDRAWAL" shall be opened and read out and the envelope with the corresponding bid shall not be opened. No bid withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at bid opening. Next envelopes marked "Modification" shall be opened and read out with the corresponding bid. No bid modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at bid opening. Only envelopes that are opened and read out at the bid opening shall be considered further.

23.3 The Bidders' names, the Bid Prices, the total amount of each bid and of any alternative bid (if alternatives have been requested or permitted), any discounts, bid withdrawal and modification, the presence or absence of Bid Security, difference of rate in words and figures, quoted price for alternate technical specification if proposed, whether the Bid Form has signature of the bidder or authorized representative, corrections/effacement or obliteration in bidding document, any remarks made by the bidder in the Bid Form, details of rates if requested and such other details as the Employer may consider appropriate will be announced by the Employer at the bid opening.

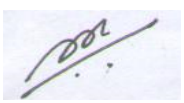
23.4 The Employer will prepare minutes of the bid opening, including the information disclosed to those present in accordance with Sub-Clause 23.3.

24. Process to Be Confidential

24.1 Information relating to the examination, clarification, evaluation and comparison of Bids and recommendations for the award of contract shall not be disclosed to Bidders or any other persons not officially concerned with such process until the award to the successful Bidder has been announced.

25. Clarification of Bids and Contacting the Employer

25.1 To assist in the examination, evaluation and comparison of Bids, the Employer may, at the Employer's discretion, ask any Bidder for clarification of the Bidder's bid, including breakdowns of unit rates. The request for clarification and the response shall be in writing



or by facsimile, but no change in the price or substance of the bid shall be sought, offered, or permitted except as required to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Bids in accordance with Clause 27.

25.2 Subject to Sub-clause 25.1, no Bidder shall contact the Employer on any matter relating to his bid from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Employer, he should do so in writing.

25.3 Any efforts by the Bidder to influence the Employer in the Employer's bid evaluation, bid comparison or contract award decisions may result the rejection of the Bidder's bid.

25.4 In case of e-submission of bid, the Bidder shall be required to submit the original Completed Bid consisting of Forms of Bid, Qualification Information, Bill of Quantities Etc. as listed in Special Instruction to Bidders for e-bidding Clause A (ii) for verification Purpose upon notification to do so from Employer within 3 days.

26. Examination of Bids and Determination of Responsiveness

26.1 Prior to the detailed evaluation of Bids, the Employer will determine whether each bid

(a) meets the eligibility criteria defined in Clause 3;

(b) has been properly signed;

(c) is accompanied by the required securities; and

(d) is substantially responsive to the requirements of the Bidding documents.

26.2 A substantially responsive bid is one which conforms to all the terms, conditions, and specifications of the Bidding documents, without material deviation or reservation. A material deviation or reservation is one

(a) which affects in any substantial way the scope, quality, or performance of the Works.

(b) which limits in any substantial way, inconsistent with the Bidding documents, the Employer's rights or the Bidder's obligations under the Contract; or

(c) whose rectification would affect unfairly the competitive position of other Bidders presenting substantially responsive Bids.

26.3 If a bid is not substantially responsive, it will be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of the nonconforming deviation or reservation.

27. Correction of Errors

27.1 Bids determined to be substantially responsive will be checked by the Employer for any arithmetic errors. Errors will be corrected by the Employer as follows:

a. where there is a discrepancy between the amounts in figures and in words, the amount in words will govern; and

b. where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern, unless in the opinion of the Employer there is an obviously gross misplacement of the decimal point in the unit rate, in which case the line item total as quoted will govern, and the unit rate will be corrected.

27.2 The amount stated in the bid will be adjusted by the Employer in accordance with the above procedure for the correction of errors and, with the concurrence of the Bidder, shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected amount, the bid will be rejected and the Bid Security may be forfeited in accordance with Sub-Clause 16.6(b).

28. Currency for Bid Evaluation

28.1 Bids will be evaluated as quoted in Nepalese Rupees in accordance with Sub-Clause 14.1.

29. Evaluation and Comparison of Bids

29.1 The Employer will evaluate and compare only the Bids determined to be substantially responsive in accordance with Clause 26.

29.2 In evaluating the Bids, the Employer will determine for each bid the evaluated Bid Price by adjusting the Bid Price as follows:

a. making any correction for errors pursuant to Clause 27;

b. excluding provisional sums and the provision, if any, for contingencies in the Bill of Quantities, but including Daywork, where priced competitively;

c. making an appropriate adjustment for any other acceptable variations, deviations or alternative offers submitted in accordance with Clause 17; and

d. making appropriate adjustments in unit rates to reflect discounts or other price modifications offered in accordance with Sub-Clause 22.5.

29.3 Further the employer shall evaluate:

a. Whether the construction work plan, work performance schedule and mobilization period is consistent with the requirement of the bidding document or not,

b. Whether the quoted item unit rates in the Bill of quantities are reliable or not,

c. Whether or not the quoted price is unbalanced due to unnaturally high rates quoted by the bidder for work items to be completed in the initial stages of the contract or for work items whose quantities are assumed by the bidder to be underestimated.

29.4 If the bid, which results in the lowest Evaluated Bid price, is unbalanced or frontloaded in relation to the Employer's estimate of the items of Work to be performed under the contract pursuant to Sub- Clause 29.3, the Employer shall ask the bidder to give clarification with detailed rate analysis for any or all items of the Bill of Quantities. If the clarification is found satisfactory then the Employer shall increase at the expense of the bidder the performance security set forth in Clause 34 by an additional 8% of the quoted amount to protect the Employer against financial loss in the event of default of the successful bidder under the contract and if the clarification is found unsatisfactory then the Employer may reject such bid.

29.5 The Employer reserves the right to accept or reject any variation deviation or alternative offer. Variations, deviations, and alternative offers and other factors which are in excess of the requirements of the Bidding documents or otherwise result in unsolicited benefits for the Employer will not be taken into account in bid evaluation.

29.6 The estimated effect of any price adjustment conditions under Clause 46 of the General Conditions of Contract, during the period of implementation of the Contract, will not be taken into account in bid evaluation.

30. Preference for Domestic Bidders

30.1 Domestic Bidders shall be given as preference.

F. Award of Contract

31. Award Criteria and Intention to Award

31.1 Subject to Clause 32, the Employer will select and award the Contract to the Bidder whose bid has been determined to be substantially responsive to the Bidding documents and who has offered the lowest evaluated Bid Price, provided that such Bidder has been determined to be (a) eligible in accordance with the provisions of Clause 3 and (b) qualified in accordance with the provisions of Clause 4 and no application for review of decision is received from other Bidders pursuant to Sub-Clause 31.3.

31.2 The Employer shall notify its intention to award the Contract to the selected bidder in accordance with Sub-Clause 31.1 within 7 days of selection of his bid. Further, the employer shall also provide information regarding the name, address and the contract amount of the successful bidder to all the bidders who participated in the bid.

31.3 Any Bidder who is not satisfied with the procurement process or Employer's decision provided as per Sub - Clause 31.2 and believes that the Employer has committed an error

or breach of duty which has or will result in loss to the bidder then the bidder may give an application for review of the decision to the Employer with reference to the error or breach of duty committed by the Employer. The review application should be given within 7 days of receipt of information regarding the issue of letter by the Employer notifying its intention to award the contract to the successful bidder.

31.4 If the review application is not received by the Employer pursuant to Sub-Clause 31.3 then the bid of the Bidder selected as per Sub-Clause 31.1 shall be accepted by the Employer.

32. Employer's Right to accept any Bid and to reject any or all Bids

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

33. Notification of Award and Signing of Agreement

33.1 The Bidder whose bid has been accepted in accordance with Sub-Clause 31.4 will be notified of the award by the Employer prior to expiration of the bid validity period by facsimile confirmed by registered letter. This letter (hereinafter and in the General Conditions of Contract called the "Letter of Acceptance") will state the sum that the Employer will pay the Contractor in consideration of the execution, completion and maintenance of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price").

33.2 The notification of award will constitute the formation of the Contract, subject to the Bidder furnishing the Performance Security in accordance with Clause 34 and signing the Agreement in accordance with Sub-Clause 33.3.

33.3 The Agreement will incorporate all agreements between the Employer and the successful Bidder. It will be signed by the Employer and sent to the successful Bidder with the notification of award along with the Letter of Acceptance. Within 15 days of receipt, the successful Bidder shall sign the Agreement and deliver it to the Employer.

33.4 Upon the furnishing by the successful Bidder of the Performance Security, the Employer will promptly notify the other Bidders that their Bids have been unsuccessful.

34. Performance Security

34.1 Within 15 days after receipt of the Letter of Acceptance, the successful Bidder shall deliver to the Employer a Performance Security in the amount stipulated in the SCC and in the form stipulated in the Bidding Data, denominated in the type and proportions of

currencies in the Letter of Acceptance and in accordance with the General Conditions of Contract.

34.2 If the Performance Security is provided by the successful Bidder in the form of a bank guarantee, it shall be issued, at the Bidder's option, either (a) by a bank located in Nepal acceptable to the Employer or (b) a foreign bank through a correspondent bank located in Nepal.

34.3 Failure of the successful Bidder to comply with the requirements of Sub-Clause 34.1 and Sub-Clause 29.4 shall constitute sufficient grounds for cancellation of the award and forfeiture of the Bid Security of the bidder and accept the bid of immediately next lowest evaluated substantially responsible bidder.

35. Advance Payment and Security

35.1 The Employer shall make an Advance Payment on the Contract Price as stipulated in the General Conditions of Contract, subject to a maximum amount as stated in the Bidding Data.

36. Additional Securities

36.1 The Contractor shall provide additional Performance Security pursuant to Sub-clause 29.4. Failure to do so shall result in forfeiture of the Bid Security and award of the Contract to the next lowest evaluated substantially responsive Bidder.

37. Adjudicator/ Dispute Resolution Board

37.1 If any dispute arises between the Employer and the Contractor in connection with the execution of the Contract, the parties shall attempt to settle such dispute amicably. If the parties fail to resolve the dispute amicably then the dispute may be referred to the Adjudicator or Dispute Resolution Board (DRB) as specified in the Bidding Data by either party in writing.

37.2 If Adjudicator is specified pursuant Sub-Clause 37.1, the Employer proposes the person named in the Bidding Data to be appointed as Adjudicator under the Contract, at the hourly fee as specified in Bidding Data plus reimbursable expenses. If the Bidder disagrees with this proposal, the Bidder should so state in his Bid. If, in the Letter of Acceptance, the Employer does not agree on the appointment of the Adjudicator, the Employer will request the Appointing Authority designated in the SCC pursuant to Clause 24.1 of the General Conditions of Contract (GCC), to appoint the Adjudicator.

38. Corrupt or Fraudulent Practices

38.1 The GoN requires that the Employer as well as Bidders observe the highest standard of ethics during the procurement and execution of contracts. In pursuance of this policy, the GoN:

a. defines, for the purposes of this provision, the terms set forth below as follows:

i. "corrupt practice" means the offering, giving, receiving or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution; and

ii. "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Employer, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish Bid Prices at artificial noncompetitive levels and to deprive the Employer of the benefits of free and open competition;

b. will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question; and

c. will declare a firm ineligible for a stated period of time, to be awarded a GoN funded contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a GoN -funded contract.

39. Conduct of Bidders

39.1 The Bidder shall be responsible to fulfill his obligations as per the requirement of the Contract Agreement, Bidding documents, GoN's Procurement Act and Regulations.

39.2 The Bidder shall not carry out or cause to carry out the following acts with an intention to influence the implementation of the procurement process or the procurement agreement:

a) Give or propose improper inducement directly or indirectly,

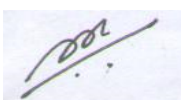
b) Distortion or misrepresentation of facts

c) Engaging or being involved in corrupt or fraudulent practice

d) Interference in participation of other prospective bidders.

e) Coercion or threatening directly or indirectly to cause harm to the person or the property of any person to be involved in the procurement proceedings,

f) Collusive practice among bidders before or after submission of bids for distribution of works among bidders or fixing artificial/uncompetitive bid price



with an intention to deprive the Employer the benefit of open competitive bid price.

g) Contacting the Employer with an intention to influence the Employer with regards to the bid or interference of any kind in examination and evaluation of the bids during the period after opening of bids up to the notification of award of contract

40. Blacklisting Bidder

40.1 Without prejudice to any other right of the Employer under this contract, GoN, Public Procurement Monitoring Office may blacklist a bidder for his conduct up to three years on the following grounds and seriousness of the act committed by the bidder:

a) If it is proved that the bidder committed acts pursuant to the clause 39.2,

b) If the bidder fails to sign an agreement pursuant to clause 33.3,

c) If it is proved later that the bidder/contractor has committed substantial defect in implementation of the contract or has not substantially fulfilled his obligations under the contract or the completed work is not of the specified quality as per the contract,

d) If convicted by a court of law in a criminal offence which disqualifies the bidder from participating in the contract.

e) If it is proved that the contract agreement signed by the bidder was based on false or misrepresentation of bidder's qualification information

f) Other acts mentioned in the Bidding Data

40.2 A firm declared blacklisted and ineligible by the GoN and or concerned Donor Agency in case of donor funded project shall be ineligible to bid for a contract during the period of time determined by the PPMO and or the concerned donor agency.

G. Bidding Data

Instruction to Bidders Clause References

A. General

ITB 1.1 *The Employer is:* **Nepal Electricity Authority (NEA),** who appoints the Contractor. **NEA,** as used in this document, shall carry the same meaning as "Employer".

The Works are: ***DDC/073/074/Line-01: Installation/Erection, Commissioning & Testing and Handover of 11/0.4/0.23 kv Distribution Line in Dadakharka, Boch, Dudhpokhari, Pawati, Shailungeshwor, Phasku, Bhedpu, Bhusapheda, Kabre, Chetrapa, Mirge, Katakuti, Jhule, Ghyangsukatokar, Magapauwa, Bhirkot, Gairimudi, Melung, Namdu, Jugu, Mali, Suspachemawati, Khopachaku, Babare, Lamidada, Chilankha, Jhyaku, Laduk, Bulung, Kalinchowk, Suri, Orang, Chankhu, Sundrawati, Sunkhani, Marbu, Bigu, Alampu VDCs and Jiri Municipality of Dolakha District.***

The scope of work covered under this shall include: Installation/Erection, Commissioning & Testing and Handover of 11/0.4/0.23kV Electrical Distribution Network to be constructed under **Dolakha Distribution Centre**. The Contractor shall have to carry out installation and commissioning of the distribution facilities and carry out final testing, charging and handover to **NEA** after completion.

The Contractors shall take materials from NEA store at Dolakha and contractor shall not charge any additional cost to NEA.

The Intended Completion date is: **9 months** from the date of contract effectiveness.

ITB 2.1 *The Source of Fund:* Fund made available by Government of Nepal (GoN).
The "Donor" means: Not Applicable

ITB 3.1 *Bidder's Eligibility Requirements are:*

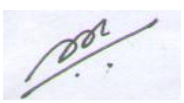
a) Up to date Firm/Company Registration Certificate

b) Business Registration License

c) Nepalese Bidders and Nepalese JV partners must submit VAT and PAN Registration Certificates. Non-Nepalese Bidders shall be required to submit the Temporary License and VAT registration certificates at the earliest possible after the Contract signing but not later than 45 days.

d) Tax Clearance Certificate or Submissions of Tax Returns up to F.Y. 2072/73.

e) A written declaration made by the Bidder stating that the Bidder is not ineligible to participate in the Bid; has no conflict of interest in the



proposed bid procurement proceedings and has not been punished for the profession or businesses related offence.

f) Joint Venture Authorization/ Agreement (if any)

g) Power of Attorney (Notarized)

h) Other documents as needed

ITB 3.4 *Following is the addition of the new definitions:*

"Bidder" shall mean a legally registered entity submitting the Bid proposal. The entity may be a supplier or manufacturer of the tendered Goods or contractor or any combination of them in the form of a Joint Venture as specified in Qualification Requirements.

"Joint Venture" shall mean a legally enforceable association constituted by legally registered entities with the purpose of committing the obligations required by the Bid.

"Goods" shall mean equipment, plant, goods, materials, etc. to be supplied and installed for the completion of the work as particularly described in the specifications.

ITB 4.3 *The information required from Bidders in Sub-Clause 4.3 is modified as follows:*

*Add the following at the end of 4.3*a: The Bid shall include a notarized power of attorney authorizing the signatory of the bid to commit the Bid on behalf of the Bidder. The legal registration certificate shall also be notarized.

Rewrite 4.3 f as follows:
Reports on the financial standing of the Bidder, such as profit and loss statements and auditor's reports for the last three years

ITB 4.4 *Maximum number of members in a Joint venture*: 3 (Three)

The qualification data required from Bidders in Sub-Clause 4.4 are modified as follows:

Add the following clauses after ITB 4.4e.

f. The joint venture (JV) agreement should indicate precisely the responsibility of all members of JV in respect of scope mentioned in Technical Specifications. This should not be varied/modified subsequently without prior approval of the Employer

ITB 4.5 *The qualification criteria in Sub-Clause 4.5 are modified as follows:*

Add the following before ITB 4.5a

Legal Status:

i) For the Bidder which is not a Joint-Venture:

The Bidder shall be a manufacturer or a contractor legally registered for at least five (5) years. A notarized copy of legal registration certificate shall be submitted along with the Bid.

ii) For the JV Bidder:

(a) Original of joint venture agreement legally binding on all JV partners shall be included in the Bid. The joint venture agreement shall bear the seal of the entity and signatures of personnel authorized by the respective entities forming the joint venture. All such authorization letters shall also be included in the Bid. These Authorization letters shall be on the original letterhead of the entity with stamp/seal of the entity.

(b) The number of joint venture partners shall not exceed three (3).

(c) The partners of the JV shall be a manufacturers or contractor legally registered for at least five (5) years.

(d) Notarized copies of legal registration certificates for each JV partners shall be submitted along with the Bid.

Failure to meet above legal status or furnish appropriate certificates with adequate information to support the qualification of the Bidder as required under this clause shall result in disqualification of the Bid.

ITB 4.5a *General Work Experience:*

The Bidder or each partner of joint venture including partner in-charge must have an experience as a contractor of electrical sub- transmission line construction of Voltage level 11kV and above and distribution line construction of Voltage level 400/230 V for at least five (5) years prior to the Bid submission.

ITB 4.5b *Replace item 4.5 b with the following:*

(a) Annual Turnover

i) For the Bidder which is not a Joint-Venture:

The Bidder shall have Average Annual Turnover (defined as the total payments received by the Bidder averaged over last three years consecutive years period) of at least equivalent to NRs**. 1607303.76**

ii) **For the JV Bidder:**

The Average Annual Turnover of the lead partner shall not be less than 51% of the amount stated above in sub-clause 4.5b (a) (i).The Average Annual Turnover of other partners shall not be less than 10% of the amount stated in sub-clauses 4.5b (a) (i).Aggregate Annual Turnover of all the JV partners shall not be less than the values specified in sub-clauses 4.5b (a) (i).

ITB 4.5c *Delete ITB 4.5c and replace it with the following:*

Specific Work Experience:

i) For the Bidder which is not a Joint-Venture:

(a) The Bid shall include certificates from the end users validating that the Bidder has successfully completed supply, construction, installation and commissioning of at least one contract of similar size and nature, or number of contracts of similar nature whose aggregate size is not less than the size of this bid .The date in the end user certificates shall not be earlier than last ten (10) years from the last date of bid submission.

(b) Out of supplied quantity, a minimum of Half the bid quantity for each item offered shall have been in operation satisfactorily to the end user for at least One year. The end user's certificates shall be on the original letter head with valid address for correspondence and signed by or on behalf of the end user.

ii) **For the JV Bidder:**

(a) The lead partner shall have completed at least one project of size which is at least 60% of the Bidder's experience stated above in 4.5c (i) a.

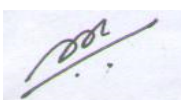
(b) Each of the other partners of the JV shall have accomplished at least one project of size at least 20% of the Bidder's experience stated above in 4.5c (i) a.

(c) The Bid shall include certificates from the end users for the lead partner and each of the other partners validating that they have successfully completed design supply, construction, installation and commissioning of projects of the size stated in ii) (a) and (b) above for the JV Bidder. The date in the end user certificates shall not be earlier than last ten (10) years from the last date of bid submission.

(d) The JV partners together shall have successfully completed design supply, construction, installation and commissioning of projects whose aggregate size is not less than the size of this bid.

ITB 4.5d *Minimum requirement of liquid asset and/or credit facilities*:

Replace item 4.5 d with the following:



(a) Working Capital:

i) For the Bidder which is not a Joint-Venture:

The Bidder shall have Working Capital (defined as total current assets less total current liabilities) of at least NRs. **1071535.84** in the last Fiscal Year.

If the Bidder's Working Capital is inadequate, the Bidder shall supplement Working Capital with Banker's letter confirming the availability of a line of credit such that aggregate of the Bidder's Working Capital for the last fiscal year and the line of credit shall not be less than the required amount.

ii) **For the JV Bidder:**

The Working Capital of the lead partner shall not be less than 51% of the amount stated above in sub-clause 4.5d (a) i. Working Capital of other partners shall not be less than 10% of the amount stated in sub-clause 4.5d (a) i. Aggregate Working Capital (with line of credit facilities) of all the JV partners shall not be less than the values specified in sub-clause 4.5d (a) i.

(b) Financial Statement and Line of Credit:

In support of above financial capacity requirement (4.5b & 4.5d), Bidder must submit the following:

i) Financial Statements:

The Bidder including joint venture partners, if any, shall submit audited financial statements (Balance Sheet and Profit & Loss Account) for the last three (3) fiscal years. Balance sheet and Profit and Loss account shall be signed and sealed by the registered auditor (s).

ii) Line of Credit:

In the event that the working capital of the Bidder (including each of the JV partner) is to be supplemented with the line of credit from a Bank, the Bidder shall submit original letter of the Bank pledging unequivocally that the Bank will provide required financial support in case the Bidder is awarded the contract. The amount of line of credit shall be clearly mentioned in the Bank letter. The bid title and the bid number shall also be mentioned in the bank letter.

The Bidder must meet the *legal status, general work experience, average annual turnover requirement, and specific work experience and working capital requirements*. Failure to comply with this requirement will result in rejection of the Bid.

ITB 4.5e *Additional Personnel requirement (if any)*: Project Engineer with five years experience in similar works.

ITB 4.5f *The minimum essential equipment requirement shall be* as mentioned in Section III, Qualification Information, Sub-clause 1.4.

ITB 4.5g *Add new item (g) with the following:*

Bids of joint venture partners shall comply with the following requirements in addition to those given in ITB 4.4.

(i) The Joint Venture agreement shall not be cancelled or amended unilaterally without the consent of the Employer and a statement to this effect should appear in the JV agreement.

ITB 4.5h *Add new item (i) with the following:*

The bidder or each partner of a joint venture, including partner in charge, who has executed any sub-transmission or distribution line project of Nepal Electricity Authority in any capacity, whether as a principal contractor or as a JV partner, must submit performance certificate issued by the General Manager/ Director/Employer of Nepal Electricity Authority, demonstrating satisfactory completion of such project(s).

ITB 4.5i *Add new item (j) as follows:*

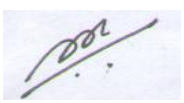
a) **Miscellaneous**

The Bidder or any of the Joint Venture partners shall not be on the blacklist issued by Public Procurement Monitoring Office, Government of Nepal or Nepal Electricity Authority.

ITB 4.6 *Rewrite 4.6 as follows*

The figures for each of the partners of a joint venture shall be added together to determine the Bidder's compliance with the minimum qualifying criteria of financial capability of ITB Sub-Clause 4.5 above. However, for a joint venture to qualify, each of its partners must meet the qualifying criteria of 4.5 (a); at least the percentage specified in Bidding Data of minimum criteria 4.5(b) and (d) for an individual Bidder and the partner in charge at least the percentage specified in the Bidding Data of minimum criteria 4.5 (b) and (d). The minimum qualifying criteria of specific work experience of ITB Sub-clause 4.5 (c) of the joint venture shall be determined based upon the Sub-clause 4.5 (g).
Failure to comply with this requirement will result in rejection of the joint venture's bid. Subcontractors' experience and resources will not be taken into account in determining the Bidder's compliance with the qualifying criteria, unless otherwise stated in the Bidding Data.

ITB 4.7 *Delete ITB Clause 4.7*



ITB 7.1 *Add the following after ITB 7.1*:

The Bidder shall be responsible to familiarize himself with all aspects, conditions and requirements of the Works, to interpret rules and regulations made by or on behalf of the Employer and all laws and regulation of government of Nepal that may in any manner affect or apply to the operations and activities of the Contractor under the Contract or in connection there with and no claim will be considered at any time for extension of time of completion or reimbursement of any expense incurred or both as a result of any misunderstanding in regard to the conditions imposed by the Contract or prevailing at the site or in Nepal. Information regarding work standards and regulations for employment of Contractor's personnel may be obtained from:

Ministry of Social Welfare and Labor, Government of Nepal, Department of Labor, Kathmandu/Nepal

ITB 9.1 *Employer's address for clarification purposes is:*

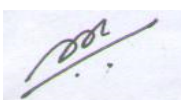
Nepal Electricity Authority
Distribution and consumer Services Directorate
Kathmandu Regional Office
Durbar Marg, Kathmandu, Nepal
Tel: +977-1-4153168
Fax: +977-1-4153223
Dolakha Distribution Centre Office
Tel: +977-49-421773
Fax: +977-49-421773

The Employer will respond to any request for clarification, provided that such request is received no later than 14 days prior to the deadline for submission of bids.

ITB 12.1

a. A list giving full particulars, including available sources of all spare parts, special tools etc., necessary for the proper and continuing functioning of the facilities for the period of five (5) years following completion of the facilities in accordance with provisions of contract.

b. A commentary on the Employer's Technical Specifications and adequate evidence demonstrating the substantial responsiveness of the facilities to those specifications. Bidders shall note that standards for workmanship, materials and equipment designated by the Employer in the bidding documents are intended to be descriptive (establishing standards of quality and performance) only and not restrictive. The Bidder may substitute alternative standards, brand names and/or catalogue numbers in its Bid, provided that it demonstrates to the Employer's satisfaction that the substitutions are substantially equivalent or superior to the standards designated in the Technical Specifications.



a. The Bidder shall submit conceptual design details and drawings with his Bid as specified in Technical Specifications.

b. Quality Assurance Program

The Bidder shall include in his proposal the Quality Assurance Program containing the overall quality management and procedures which he proposes to follow in the performance of the Contract during various phases as detailed in the relevant clauses of the Technical Specifications.

e. At the time of award of the Contract, the detailed Quality Assurance Program to be followed for the execution of the contract will be mutually discussed and agreed to, and such agreed program shall form part of the contract.

f. In case the Bidder is not the manufacturer of any Plants and Equipment to be supplied and installed under the contract, the Bidder must submit manufacture's certificate authorizing the Bidder to supply the manufacture's plant and equipment. This certificate must be provided on the manufacturer's original letterhead with the seal/stamp of the company and details on the plant and equipment or component, which the manufacturer will be supplying under the authorization. The Bidder is responsible for ensuring that the manufacturer or producer complies with the requirements listed above for that item.

ITB 13.1 *Add the following after ITB 13.1:*

i) Bidders shall quote for the entire facilities on a "single responsibility" basis such that the total bid price covers all the Contractor's obligations mentioned in or to be reasonably inferred from the bidding documents in respect of the manufacture, including procurement and subcontracting (if any), delivery, construction, installation and completion of the facilities. This includes all requirements under the Contractor's responsibilities for testing, pre-commissioning and commissioning of the facilities and, where so required by the bidding documents, the acquisition of all permits, approvals and licenses, etc., operation, maintenance and training services and such other items and services as may be specified in the bidding documents, all in accordance with the requirements of the Conditions of Contract.

ii) Bidders are required to quote the prices for the commercial, contractual and technical obligations outlined in the Bidding Documents.

iii) Bidders shall give a breakdown of the prices in the manner and detail called for in the Bill of Quantities.

iv) .In the Price Schedules, Bidders shall give the required details and breakdown of their prices.

ITB 15.1 *The period of bid validity shall be 120 days after the deadline for bid submission.*

ITB 16.1 *The amount of Bid Security shall not be less than:* NRs. 84000

ITB 17.0 *Alternative proposal to the requirements of the Bidding documents will not be permitted.*

ITB 18.2 *The written confirmation of authorization to sign on behalf of the Bidder shall indicate:*

(a) The Bid shall include a notarized power of attorney authorizing the signatory of the bid to commit the Bid on behalf of the Bidder; and

(b) In the case of Bids submitted by an existing or intended JV an undertaking signed by all parties (i) stating that all parties shall be jointly and severally liable, and (ii) nominating a Representative who shall have the authority to conduct all business for and on behalf of any and all the parties of the JV during the bidding process and, in the event the JV is awarded the Contract, during contract execution.

ITB 19.2 a. *The Employer's address for the purpose of bid submission is*:

Nepal Electricity Authority
Distribution and consumer Services Directorate
Kathmandu Regional Office
Durbar Marg, Kathmandu, Nepal
Tel: +977-1-4153168
Fax: +977-1-4153223

b. *Name and Identification number of the Contract*

Tender No: ***DDC/073/074/Line-01: Installation/Erection, Commissioning & Testing and Handover of 11/0.4/0.23 kv Distribution Line in Dadakharka, Boch, Dudhpokhari, Pawati, Shailungeshwor, Phasku, Bhedpu, Bhusapheda, Kabre, Chetrapa, Mirge, Katakuti, Jhule, Ghyangsukatokar, Magapauwa, Bhirkot, Gairimudi, Melung, Namdu, Jugu, Mali, Suspachemawati, Khopachaku, Babare, Lamidada, Chilankha, Jhyaku, Laduk, Bulung, Kalinchowk, Suri, Orang, Chankhu, Sundrawati, Sunkhani, Marbu, Bigu, Alampu VDCs and Jiri Municipality of Dolakha District.***

ITB 20.1 *The deadline for submission of Bids shall be:* 12:00 (Noon) Ashar 18, 2074.

ITB 23.1 *The bid opening shall take place on 14:00 (Noon)* Ashar 18, 2074 *at:*

Nepal Electricity Authority
Distribution and Consumer Services Directorate
Kathmandu Regional Office
Durbar Marg, Kathmandu
Tel. : + 977 (01) 4153168
Fax : + 977 (01) 4153223

ITB 32.0 *Following is the addition to the said clause:*

ITB32.2 *Bids shall be rejected as being non-responsive if*

a. The bidder has not purchased and returned the original document issued by NEA.

b. The Bid Document is issued in the name of one firm and Bid proposal submitted by another firm. The bid has been purchased in the name of single firm and submitted in the name of Joint Venture and vice versa.

c. The Bid does not contain wax sealed bid proposal.

d. The Bid is not signed and stamped by the bidder or their authorized representative.

e. It is proved that bidders have submitted the bids by making such arrangements that limits the participation of other bidders or influences the bid price in any manner.

f. The Bid is received by NEA after the deadline for submission of Bids.

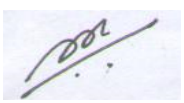
g. All the information required by the bid document is not mentioned or falsely quoted.

h. The documents and guarantee/bank voucher as required by the bid are not attached with the bid proposal.

i. The notarized copy of joint venture agreement is not attached, in case the bidder is participating in the bid in Joint Venture.

j. The amount of commission, currency of payment, and method of payment to the bidder's agent are not revealed.

k. Any other conditions/information about the local agent is not revealed or falsely mentioned.



l. The notarized power of attorney to sign the bid on behalf Bidder and the joint venture (if any) is not attached.

m. The percentages of liability among joint venture partners are not clearly mentioned.

n. The bid is conditional.

o. Any conditions mentioned in tender invitation are not fulfilled.

p. Data on qualifications of Bidder/ Manufacturer (Form G) are not filled and the supporting documents required by the forms are not furnished.

q. Proposed delivery schedule showing completion dates more than NEA's requirement.

r. The Bid fails to satisfy that Bid is fully cognizant of the scope and details of the work involved.

s. The Bid does not contain technical information and documents for major items required by the Specifications for materials on which the bidder is offering.

t. The offered goods are not substantially in compliance with the specification.

u. If the attached Technical Data Sheet in the specification is not properly completed and/or data furnished are not supported by the catalogues and test reports (wherever required).

v. Qualification criteria as per bidding data Sheet, ITB Clause 4.0 are not met.

w. The description provided by the bidders pertaining to the qualification is found to be false or is substantially incomplete.

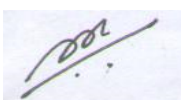
x. The bidder is blacklisted in its contractual obligations in past NEA contracts.

y. If the required documents are not submitted authenticated English version. However the documents in Nepali language issued from the concerned authority of Nepal will also be accepted.

z. The bidder does not offer all the items and quantity specified in Price Schedule.

aa. The Bid Security (Bid Bond) is not enclosed pursuant to ITB Clause 16 or is not acceptable in form and / or substance.

bb. The Bid has price escalation clause.



cc. The Bid Security submitted is not specifically mentioned to be applicable to the offer of the Bidder.

dd. The Bid Bond submitted by someone other than the Bidder does not clearly mention that the Bond is submitted on behalf of the Bidder in the Bid Bond itself.

ee. The Bid Bond is not in the name of Joint Venture, in case of Joint Ventures.

ff. The bid price of lowest substantially responsive bidder is substantially higher than the estimated price.

gg. The Bidder does not submit the original completed Bid document/clarification to Special Instruction to Bidders for e- Bidding clause B (iii) for within 3 days.

ITB 33.3 *Delete ITB sub-clause 33.3 and replace it with the following:*

Within 15 days after receipt of the Letter of Acceptance the successful Bidder shall present himself for Contract Negotiation and Contract signing.

ITB 33.4 *Delete ITB sub-clause 33.4 and replace it with the following:*

Upon the furnishing by the successful Bidder of the Performance Security, the Employer will promptly sign a Contract Agreement with the Bidder and notify the other Bidders that their Bids have been unsuccessful.

ITB 34.1 The Standard Form of Performance Security acceptable to the Employer shall be a Bank guarantee using the form provided in Section VI. The Performance Security shall be valid until a date 30 days from the date of issue of the Defect Liability Certificate.

ITB 35.1 *The Advance Payment shall be limited to ten percent (10%) in pursuant to Clause 50 of the General Conditions of Contract.*

ITB 37.1 *Reference of Dispute to: DRB.*

ITB 37.2 *The Adjudicator proposed by the Employer is:* Not Applicable
The hourly fee for this proposed Adjudicator shall be: Not Applicable
The biographical data of the proposed Adjudicator is as follows: Not Applicable

Members of DRB to be appointed within 90 days after signing of the Contract Agreement.

ITB 40.1 *f) Additional acts as ground for black listing:* None

Special Instruction to Bidders for e-Bidding

A) Bid submission procedures through electronically (e-submission) only:

i. Interested eligible bidders shall, either purchase the hard copy of the bidding document directly from the Employer's office as specified in the Invitation for Bid (IFB) or may download the necessary parts of the bidding documents from e-procurement section in NEA's web site http://www.e-nea.org.np. In case, the bidders choose to download the bidding documents, prepare the bids on downloaded documents, and submit their bids electronically. The Bidders shall be required to deposit the non refundable fee for the bidding document (as specified in the bid notice) in the bank account specified in the IFB and electronic scanned copy (*.pdf format) of the bank deposit voucher shall also be submitted along with the electronic bid files.

ii. The Bidder shall fill the following documents and forms (in hard copy of issued bid documents), signed by the authorized representative with seal of the company.

a) Bill of Quantity (BOQ) with rate, amount, b) Forms of Bid, Qualification Information

The Bidder shall then scan the completed original documents, forms in PDF formats with appropriate filename shown if the table below.

S.No.	Document	PDF File name	Requirement	Remarks
1	Form of Bid	Bid form -1	Mandatory	
2	Bid Security (Bank Guarantee)	Bid security-2	Mandatory	
3	Company registration,	Company reg-3	Mandatory	All firms in case of JV
4	VAT/PAN registration,	VAT reg-4	Mandatory for National firms	All firms in case of JV
5	Tax clearances certificate,	Tax-5	Mandatory for National firms	All firms in case of JV
6	Power of Attorney of Bid signatory	Power of att-6	Mandatory	
7	Joint venture agreement	JV doc-7	Mandatory	
8	Qualification Information	Qualifications-8	Mandatory	
9	BOQ with rate, amount and	BOQ-9	Mandatory	
10	Manufacturers Authorization	Authorization -10	Not Mandatory	NA
11	Technical Data Sheet	TDS-11	Not Mandatory	NA
12	Certification Documents	Certifications-12	Not Mandatory	NA
13	Declaration Form	Declaration-13	Mandatory	

Note: **Mandatory** *means the mentioned files shall be included in e-submission and non-submission of such file shall be considered as non-responsive bid.*

iii. For e-submission purpose the Bidder shall, at first, register in the e-procurement section NEA's web site http://www.e-nea.org.np .

iv. After preparing all the required bidding documents in PDF, scan the files as specified in (ii).

v. The Bidder shall upload the PDF bid files and submit the complete bid online through e-procurement section of NEA's website http://www.e-nea.org.np within the specified date and time.

vi. The e-procurement system will accept the e-submission of bid from the date after publishing of notice and will automatically disallow the e-submission of bid after the deadline for submission of bid, as specified above.

vii. The standard time for e-submission is Nepalese Standard Time as set out in the server of IT Department of NEA.

viii. When a bidder submits his bid in hard copy, the e-procurement section does not allow the bidder to submit his Substitution or Modification or Withdrawal through e-procurement section of NEA's web site.

ix. Bidders may submit his Substitution or Modification or Withdrawal either in hard copy or through e-submission.

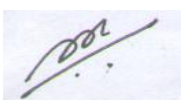
x. For Substitution of Bid, the Bidder shall follow similar steps as specified in ITB Clause -22 with a Substitution letter in PDF file.

xi. For Modification or Withdrawal of bid, the Bidder is required to submit PDF scan copy of their Modification or Withdrawal letter and a written Power of Attorney of the signatory for Modification/ Withdrawal, duly signed by Authorized Representative/s of the Firm / all authorized Joint Venture partners.

xii. When a Bidder submits electronic bid by downloading the bidding documents from the NEA's webpage it is assumed that the Bidder prepares his bid by studying and examining all the Bidding documents including specifications and conditions of contract.

xiii. In case the Bidder choose to download the bidding documents and deposit the cost of bidding documents (as specified in the bid notice), such deposited amount shall be verified by the office during bid evaluation process. The bid shall be considered as non-responsive and shall not be evaluated if the specified cost for bidding document is not deposited in the Employer's Revenue account.

xiv. Proposed facility for submission of bid electronically through e-submission is to increase transparency, non-discrimination, equality of access, and open competition. The Bidders



shall be fully responsible to use the e-submission facility in e-procurement section of NEA's website http://www.e-nea.org.np in specified procedures and in no case the Employer shall be held liable for Bidder's inability to use this facility.

B) Requirements and Conditions for e-submission of bid:

i. The Bidder shall submit his bid electronically in PDF files in the manner as specified above, and additional submission of hard copy of "original plus one copy of bid" is not mandatory.

ii. In case, if both the electronic bid and original bid in hard copy are submitted to the Employer within the bid submission deadline, the Bidder's electronic bid and original bid in hard copy will be accepted for evaluation provided the facts and figures in hard copy confirm to the PDF files in electronic bid. If there is any discrepancy in fact and figures between the electronic bid and original bid in hard copy, it will be treated as two separate bids from one Bidder and hence, both the electronic bid and original bid in hard copy shall be disqualified.

iii. However, for electronically submitted bid in PDF files, the Bidder shall be required to submit documents/clarifications for verification purpose upon notification to do so from the Employer within 3 days.

iv. The e-submitted bids must be readable through open standards interfaces. Unreadable and or partially submitted bid files (not complying with the ITB Clauses) shall be considered incomplete and rejected for further bid evaluation.

v. In addition to electronically submitted PDF files, the Bidder shall be required to submit documents and clarifications as required by the Employer. Non-submission of such documents and or clarifications by the Bidder within specified time may cause forfeiture of Bid Security.

vi. In case of major discrepancy found between electronically submitted PDF bid files and documents/ clarifications provided by the Bidder, the bid shall not be considered for further evaluation.

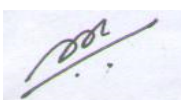
vii. The Bidder shall attach the Bid Security Guarantee in the format attached in the Bid Document. The Bid Security may be forfeited

a. if the Bidder does not respond to and/or submit the documents and or clarifications when requested by the Employer.

b. if major discrepancy is found between e-submitted bid information and documents/clarifications provided by the Bidder during verification process as requested by the Employer.

C) Bid Opening process for e-submitted bid

i. Electronically submitted bid shall be opened first at the Bid opening time.



ii. The e-procurement system allows the Employer to download and open the e-submitted bid files from the bidders only after the time for opening the bids.

iii. The e-submitted bids must be readable through open standards interfaces. Unreadable and or partially submitted bid files (not complying with the ITB Clauses) shall be considered incomplete and rejected for further bid evaluation.

iv. After opening of e-submitted bids files, all files shall be printed and recorded at the time of bid opening.

b) In case of "WITDRAWAL" or "MODIFICATION" or "SUBSTITUTION" by the Bidder through e-submission, the e-submitted PDF files under "WITDRAWAL" or "MODIFICATION" or "SUBSTITUTION" shall be opened and read out first. Bids for which acceptable notice of "WITDRAWAL" or "SUBSTITUTION" has been submitted pursuant to ITB Clause shall not be opened.

D) Bid Evaluation and Comparison process for e-submitted bid

i. In case of e-submitted bids, the Employer evaluates the bid based on the information as per electronically submitted bid files. For clarification/ verification purpose, the Employer may request the Bidder to submit documents/ clarifications.

ii. In case, the Bidder could not substantiate or provide evidence to prove the information provided in e-submitted bid through documents/clarifications, the bid shall not be considered for further evaluation and respective ITB Clause for forfeiture of bid security shall be applicable.

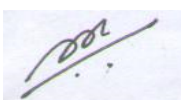
iii. The e-submitted bids must be readable through open standards interfaces. Unreadable and or partially submitted bid files (not complying with the ITB Clauses) shall be considered incomplete and rejected for further bid evaluation.

E) Qualification Information

In case of e-Bidding, the Bidder is required to submit the documents to prove minimum qualification requirements only and not the detail documents.

F) Bid Security Format

Form of Bid security shall include the provision as ‘This Bank Guarantee shall not be withdrawn or released merely upon return of the original Guarantee by the Bidder unless notified by the Employer for the release of the Guarantee’.



Section III

Sample Forms of Bid, Qualification Information, Letter of Intention to Award, Letter of Acceptance and Agreement

Notes to Bidders
The Bidder shall fill in and submit this bid form with the bid. Additional details on the price should be inserted if the bid is in various currencies. If the Bidder objects to the Adjudicator proposed by the Employer in the Bidding documents, he should so state in his bid, and present an alternative candidate, together with the candidate's daily fees and biographical data, in accordance with Clause 37 of the Instructions to Bidders.

SAMPLE FORM OF BID

Date:
To:
Nepal Electricity Authority
Distribution and Consumer Services Directorate
Kathmandu Regional Office
Durbar Marg, Kathmandu
Tel. : + 977 (01) 4153168
Fax : + 977 (01) 4153223
Dolakha Distribution Centre Office
Tel: +977-49-421773
Fax: +977-49-421773

Name of the Contract: ***DDC/073/074/Line-01: Installation/Erection, Commissioning & Testing and Handover of 11/0.4/0.23 kv Distribution Line in Dadakharka, Boch, Dudhpokhari, Pawati, Shailungeshwor, Phasku, Bhedpu, Bhusapheda, Kabre, Chetrapa, Mirge, Katakuti, Jhule, Ghyangsukatokar, Magapauwa, Bhirkot, Gairimudi, Melung, Namdu, Jugu, Mali, Suspachemawati, Khopachaku, Babare, Lamidada, Chilankha, Jhyaku, Laduk, Bulung, Kalinchowk, Suri, Orang, Chankhu, Sundrawati, Sunkhani, Marbu, Bigu, Alampu VDCs and Jiri Municipality of Dolakha District.***

Having examined the Bidding Documents, including Addendum Nos. [insert numbers] the receipt of which is hereby acknowledged, we, the undersigned, offer to design, manufacture, test, deliver, install, pre-commission and commission the Facilities under the above named Contract in full conformity with the said Bidding Documents for the sum of **[amount of foreign currency in words], [amount in figures],** and **[amount of local currency in words], [amount in figures]** or such other sums as may be determined in accordance with the terms and conditions of the Contract. The above amounts are in accordance with the Price Schedules attached herewith and are made part of this Bid.

We undertake if our Bid is accepted, to commence the Works and to achieve Completion within the respective times stated in the Bidding Documents.

If our Bid is accepted, we undertake to provide an advance payment security and a performance security in the form, in the amount, and within the times specified in the Bidding Documents.

This Bid and your written acceptance of it shall constitute a binding Contract between us. We understand that you are not bound to accept the lowest or any bid you receive.

Commissions or gratuities, if any, paid or to be paid by us to agents relating to this bid, and to contract execution if we are awarded the contract, are listed below:

Name and address of agents	Amount and currency	Purpose of commission or gratuity
1. 2. *[if none, state "none"]*		

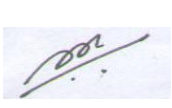
We hereby confirm that this bid complies with the bid validity and Bid Security required by the Bidding documents and specified in the Bidding Data and/or Invitation for Bids.

Authorized Signature: ……

Name and Title of Signatory:…….

Name of Bidder:…….

Address:……..



QUALIFICATION INFORMATION

1. Individual Bidders or Individual Members of Joint Ventures

1.1 Constitution or legal status of Bidder: *[attach copy]*
All Bidders shall submit following documents as pre- requisites for eligibility:

a) Registration Certificate *[attach copy]*

b) Place of Registration *[insert]*

c) Principal place of Business *[insert address]*

d) Business Registration License *[attach copy]*

e) VAT and PAN Registration Certificates *[attach copy]*

f) Tax Clearance Certificate or Submissions of Tax Returns as specified in Bidding Data *[attach copies]*

g) A written declaration made by the Bidder stating that the Bidder is not ineligible to participate in the Bid; has no conflict of interest in the proposed bid procurement proceedings and has not been punished for the profession or businesses related offence.

h) Joint Venture Authorization/ Agreement (if any)

i) Power of Attorney

1.2 Total annual volume of supply and construction works performed in last ten years, in US Dollar or Nepalese Rupees. Complete the Qualification Form furnished, and attaches the copies of relevant documents.

Year (F/Y)	Name of Contract	Amount of work done, US$

1.3 Work performed as prime Contractor or member of a joint venture on works of a similar nature and volume over the last ten years. The values should be indicated in the same currency used for Item 1.2 above. Also list details of work under way or committed, including expected completion date. Complete the Qualification Form furnished and attaches the copies of relevant documents.

Project name	Name of client and contract	Type of work performed and year of completion	Completion date or Expected Completion date	Total Value of Contract	Value of remaining work
1. 2.					

1.4 Major items of Contractor's Equipment proposed for carrying out the Works. The equipment shown in the table shall be required at the minimum. List all information requested below. Refer also to Sub-Clause 4.3(d) of the Instructions to Bidders. If the equipments are to be leased/hired, submit papers making specific arrangement for leasing/hiring.

Item of equipment	Description, make, and age (years)	Condition (new, good, poor) and number available	Owned, leased (from whom?), or to be purchased (from whom?)
Vice (5 Nos.)			
1 kV Megger			
Crimping Tools (5 Nos.)			
Theodelite and Survey Equipment			
Multimeters			
Safety equipment			
Ladders			
Tong Tester			

1.5 Qualifications and experience of key personnel proposed for site management, administration and execution of the Contract. Attach bio-data and detailed curriculum vitae. Refer also to Sub-Clause 4.3(e) and 4.5(e) of the Instructions to Bidders and Sub-Clause 9.1 of the General Conditions of Contract.

Position	Name	Years of experience (general)	Years of experience in proposed position
1. 2.			

1.6 Proposed subcontracts and firms involved. Refer to Clause 7 of General Conditions of Contract.

Sections of the Works	Value of Subcontract	Subcontractor (name and address)	Experience in similar work
1. 2.			

1.7 Financial reports for the last three years: balance sheets, Income statements, cash flow statements, auditors' reports, etc. Complete the Qualification Form furnished and attach copies of reports.

1.8 Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit, etc. List below and attach copies of support documents.

Source of financing	Amount in US$/NRs.
1. 2.	

1.9 Name, address, telephone and facsimile numbers of banks that may provide references if contacted by the Employer.

Name	Address	Telephone/fax number	E-mail address
1. 2.			

1.10 Information on current litigation in which the Bidder is involved.

Other party(ies)	Cause of dispute	Amount involved
1. 2.		

1.11 Statement of compliance with the requirements of Sub-Clause 3.1 and 3.2 of the Instructions to Bidders.

1.12 Proposed Program (work method and schedule). Descriptions, drawings, and charts, as necessary, to comply with the requirements of the Bidding documents.

2. Joint Ventures

2.1 The information listed in 1.1 - 1.11 above shall be provided for each partner of the joint venture.

2.2 The information in 1.12 above shall be provided for the joint venture.

2.3 Attach the power of attorney of the signatory (ies) of the bid authorizing signature of the bid on behalf of the joint venture.

2.4 Attach the Agreement among all partners of the joint venture (and which is legally binding on all partners), which shows that

(a) all partners shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms;

(b) one of the partners will be nominated as being in charge, authorized to incur liabilities, and receive instructions for and on behalf of any and all partners of the joint venture; and

(c) the execution of the entire Contract, including payment, shall be done exclusively with the partner in charge.

3. Additional Requirements

3.1 Bidders should provide any additional information required in the Bidding Data or to fulfill the requirements of Sub-Clause 4.1 and Clause 30 of the Instructions to Bidders, if applicable.

3.2 Complete the attach Qualification Forms.

LETTER OF INTENTION TO AWARD

Date:

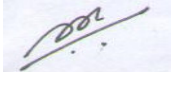
To: *[name and address of the Contractor]*

This is to notify you in accordance with the Instruction to Bidders that it is our intention to award the contract *[name of the Contract and identification number, as given in the* Contract Data a*nd/or SCC]* to you as your Bid price of *[amount in numbers and words in Nepalese Rupees]*, as corrected and modified in accordance with the Instructions to Bidders, is determined to be substantially responsive and lowest evaluated Bid price.

Authorized Signature:_____

Name and Title of Signatory:_____

Name of Agency:_____



LETTER OF ACCEPTANCE

Date:

To: *[name and address of the Contractor]*

This is to notify you that your Bid dated *[date]* for execution of the *[name of the Contract and identification number, as given in the* Contract Data *and/or SCC]* for the Contract Price of the equivalent, of *[amount in numbers and words in Nepalese Rupees]*, as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by our Agency.

(a) We accept that ***[name proposed by Bidder] be appointed as the Adjudicator.***

(b) We do not accept that ***[name proposed by Bidder]*** be appointed as adjudicator, and by sending a copy of this letter of acceptance to ***[insert the name of the Appointing Authority],*** we are hereby requesting ***[name],*** the Appointing Authority, to appoint the Adjudicator in accordance with Clause 38.1 of the Instructions to Bidders.

You are hereby instructed to proceed with the execution of the said Works in accordance with the Contract documents.

Authorized Signature:

Name and Title of Signatory:

Name of Agency:

Attachment: Agreement

AGREEMENT

This Agreement, made the **[day]** day of **[month],** [**year]** between **Nepal Electricity Authority, ……** (hereinafter called "the Employer") and **[name and address of Contractor]** (hereinafter called "the Contractor").

Whereas the Employer is desirous that the Contractor execute [***name and identification number of Contract***] on turnkey basis covering design, manufacture, test, deliver, install, complete and commission (hereinafter called "the Works") and the Employer has accepted the bid for _____ **[insert the amount in currencies of the bid in numbers and words]** by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

Now this Agreement witnessed as follows:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the General Conditions of Contract hereinafter referred to, and they shall be deemed to form and be read and construed as part of this Agreement.

2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.

   i. Agreement
   ii. the Letter of Acceptance
   iii. the Contractor's Bid
   iv. the Special Conditions of Contract
   v. the General Conditions of Contract;
   vi. the Specification
   vii. the Drawings; and
   viii. the Bill of Quantities; and
   ix. any other document listed in the SCC as forming part of the Contract

3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.

4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects wherein the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

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

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

Signed, Sealed, and Delivered by the said _____
in the presence of: _____

Binding Signature of Employer _____
Binding Signature of Contractor _____

QUALIFICATION FORMS (QF)

QF1-	General Information
QF2-	Experience in Contracts of Similar Works
QF3-	Summary of Current Contract Commitments/Works in Progress
QF4-	Financial Data
QF5-	Annual Turnover Data
QF6-	Manufacturing Experience
QF7-	Manufacturer's Authorization Certificate
QF8-	Declaration of Local Agent

Note:

1. These forms shall be filled up and furnished by the Bidder and its Joint Venture partner(s), if any.

2. If necessary, additional sheets may be added to the forms. Each page of each form should be clearly marked in the right top corner as follows: Form QF1, page 1; Form QF1, page 2, etc.

3. Some forms will require attachments. Such attachments should be clearly marked as follows: Attachment 1 to Form QF1, Attachment 2 to Form QF1, etc.

QF-1. GENERAL INFORMATION

Bidder and its Joint Venture Partner(s) and/or Subcontractors are requested to complete the information in this form. Nationality information of Bidders should also be provided.

1.	Name of Bidder	
2.	Head office address	
3.	Local office address (if any)	
4.	Telephone	Contact address
5.	Facsimile	e-mail
6.	Place of incorporation / registration	Year of incorporation / registration
7.	Main lines of business 1. Since: 2. Since: 3. Since: 4. Since:	

Note:
Copies of following credentials shall be attached:

a) Notarized copy of incorporation/registration certificate
b) Copy of tax clearance certificate.
c) Notarized copy of joint venture agreement, if any.
d) Copy of authorization letter from manufacturer, if Bidder is not a manufacturer.
e) Organization chart

Signature and Seal of Bidder:

QF-2. SUMMARY OF CURRENT CONTRACT COMMITMENTS/WORKS IN PROGRESS

Name of Bidder/Joint Venture Partner:

Bidder and its Joint Venture partner(s) and/or Subcontractors should provide information on their current contracts that have been awarded, for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

Contract	Client	Date of Contract	Total Amount (NRs.)	Date of completion

Attach copies of intent, performance certificate or other document as appropriate.

Signature and Seal of Bidder:

QF-3. EXPERIENCE IN CONTRACTS OF SIMILAR WORKS

Name of Bidder/Joint Venture Partner:

Use a separate sheet for each contract. Reference for satisfactory completion of each project should be attached.

1.	Contract No.	
	Name of contract	
	Country	
2.	Name of employer	
3.	Employer address	
4.	Nature of works and special features relevant to the contract:	
4.1	New or Refurbishment / Reinforcement of existing substation:	
4.2	Voltage level of substation, kV:	
4.3	Transformer installation, voltage level and rating in MVA:	
4.4	Scope of works (Supply /Erection/Turnkey):	
5.	Contract role (check one) ☐ Sole contractor ☐ Subcontractor ☐ Partner in a joint venture: Lead ☐ Non-Lead ☐	
6.	Value of the total contract (in specified currencies at completion, or at date of award for current contracts): Currency:	
7.	Equivalent value US$	
8.	Date of award	
9.	Date of completion	
10.	Contract duration: _____ years _____ months	
11.	Reason for delay (if any) in completion:	

Note:

a) Attach duly notarized end user's certificates evidencing successful completion of project.
b) If the work is done in Joint Venture, attach the duly notarized JV agreement which shall show the percentage share of respective partners of J/V.

Signature and Seal of Bidder

QF-4. FINANCIAL DATA

Name of Bidder/Joint Venture Partner:

Bidder and its Joint Venture partner(s) should provide financial information to demonstrate that they meet the requirements of the bidding document. Each Bidder and its joint venture partner(s) must fill in this form. If necessary, use separate sheets to provide complete banker information. A copy each of the audited balance sheet for the following last three years should be attached.

Banker	Name of banker	
	Address of banker	
	Telephone	Contact name and title
	Facsimile	Email

Summarize actual assets and for the following last three fiscal years.

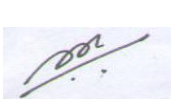
Financial information in NRs.	Last three fiscal years		
	Year 1	Year 2	Year 3
1. Total assets			
2. Current assets			
3. Total liabilities			
4. Current liabilities			
5. Profits before taxes			
6. Profits after taxes			

Specify proposed sources of credit line to meet the cash flow demands of the Project.

Source of credit line	Amount (NRs.)
1.	
2.	

Attach audited financial statements for the above three years (for the Bidder and its joint venture partner(s)) certified by a registered accountant.
Attach original Bank References for Bidder and JV Partner(s).

Signature and Seal of Bidder:



QF-5. ANNUAL TURNOVER DATA

Name of Bidder/ Joint Venture Partner:

Bidder and its Joint Venture partner(s) are requested to complete the information in this form separately. The information supplied should be the annual turnover of the Bidder, in terms of the amounts billed to clients for each year for work in progress or completed. In case of a joint venture, a copy of the Joint Venture Agreement must be attached.

Use a separate sheet for Bidder and its Joint Venture partner(s).

Annual turnover data for the following last three fiscal years		
Year	Turnover	NRs.

Signature and Seal of Bidder:

QF-6. MANUFACTURING EXPERIENCE (Not Applicable)

1. Name of the Plant and Equipment:

2. Production capacity (average annual):

3. First year of manufacturing:

4. Quantity produced [Sets/Numbers/ Km]:

   i) B.S. :
   ii) B.S. :
   iii) B.S. :

5. Manufactured under own development? Yes No

6. Manufactured under license from:

7. Manufactured in collaboration with:

8. Has the Bidder R&D Section? Yes No

9. Has manufacturer a Quality Assurance Plan (QAP) in place? Yes No

10. Is the manufacturer certified or accredited by an organization? Yes No

11. Name the organization and type of certification/accreditation:

Note:

Copy of following document shall be attached:

a) Copy of Quality Assurance Plan (ISO 9001) for each manufacturer as sought in specification.

b) The above details shall be produced for the major materials as specified in the Bidding Data Sheet.

c) Copy of Incorporation/Registration of manufacturer (For the major materials as specified in the Bidding Data Sheet).

d) Manufacturer's user certificates, supply record executed in the past and currently being executed with the list of clients with complete postal address, telephone and fax number if any.

QF-7. MANUFACTURER'S AUTHORIZATION CERTIFICATE (Not Applicable)

The Bidder shall furnish authorization certificates in the following format for specified equipment.

To:
Nepal Electricity Authority
Distribution and Consumer Services Directorate
Kathmandu Regional Office
Durbar Marg, Kathmandu
Tel. : + 977 (01) 4153168
Fax : + 977 (01) 4153223
Dolakha Distribution Centre Office
Tel: +977-49-421773
Fax: +977-49-421773

WHEREAS ---------- (name of the manufacturer) who are established and reputable manufacturers of ---------- (name and/or description of the goods) having factories at ---------- (address of factory) do hereby authorize ---------- (name and address of Bidder) to submit a Bid and subsequently negotiate and sign the Contract with you against Invitation for Bid (IFB) No. ..... for the above goods manufactured by us.

We hereby extend our full guarantee and warranty as per the Conditions of Contract for the goods offered for supply by the above firm against this Invitation for Bids. The warranty period for the treated wooden poles manufactured by us is ten years (applicable for treated wooden poles only). We further extend our full commitment to provide after sales service.

_____
(Signature and Seal for and on behalf of Manufacturer)

Note: The original Manufacturer's Authorization Certificate shall be submitted in the bid.

Signature and Seal of Bidder:

QF-8. DECLARATION OF LOCAL AGENT

A foreign Bidder wishing to have or already having a local agent shall state the following:

1. Name of local agent: _____

2. Address & Telephone/Fax Number of the local agent:

_____

_____

3. Amount of commission: _____

4. Currency of payment: _____

5. Method of payment: _____

6. Other conditions of the Agreement (if any): _____

Signature and Seal of the Bidder:

Nepal Electricity Authority
Declaration Form (for E-bidding)

S.No.	Description		Status			
			Issued to (as applicable)	Issued by (as applicable)	Date of Issue	No. of Pages
1	Notarized Power of Attorney from the Company to Sign on Company's behalf (For Single Bidder)					
2	Joint Venture Agreement; ***If any***					
3	Notarized Power of Attorney to Sign the Bid on Company's behalf (Each Partner in case of JV)					
4	Notarized Power of Attorney to Sign the Bid (On Behalf of JV)					
5	Registration Certificate of the Bidder (and each partners in case of JV)					
6	Bid Security					
7	Price Schedule					
8	Bid Form					
9	Qualification Forms					
10	Complete Certified Audited Report of the Bidder (and each partner in case of JV)	Year 1				
		Year 2				
		Year 3				
11	Performance (or user) Certificate/s (Bidder)	1				
		2				
		3				
		4				
12	Manufacturer's Authorization/s (Not Applicable)	1				
		2				
		3				
		4				
13	Power of Attorney from the Company to Issue the Manufactures Authorization (Not Applicable)					
14	Business License of Manufacturer/s (Not Applicable)	1				
		2				
		3				
		4				
15	User Certificate/s (Manufacturer) (Not Applicable)	1				
		2				
		3				
		4				

16	ISO Certificate(Not Applicable)	1				
		2				
		3				
		4				
17	Type Test Report/s (if required as per specification) (Not Applicable)	1				
		2				
		3				
		4				
18	Technical Data Sheet(Not Applicable)	1				
		2				
		3				
		4				
19	Other Certification (as per requirements)	1				
		2				
		3				
		4				

Section IV

General Conditions of Contract (GCC)

A. General

1. Definitions

1.1 Boldface type is used to identify defined terms.

The **Adjudicator** is the person appointed jointly by the Employer and the Contractor to resolve disputes in the first instance, as provided for in Clauses 24 and 25 hereunder.

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

Compensation Events are those defined in Clause 43 hereunder.

The **Completion Date** is the date of completion of the Works as certified by the Manager, in accordance with Sub-Clause 54.1.

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

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

The **Contractor's bid** is the completed Bidding documents submitted by the Contractor to the Employer.

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

Days are calendar days; months are calendar months.

Day works are varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant.

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

The **Defects Liability Certificate** is the certificate issued by a Manager upon correction of defects by the Contractor.

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

Drawings include calculations and other information provided or approved by the Manager for the execution of the Contract.

The **Employer** is the party who employs the Contractor to carry out the Works. 'NEA' shall imply 'Employer' throughout this document.

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

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

The **Intended Completion Date** is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is specified in the SCC. The Intended Completion Date may be revised only by the Manager by issuing an extension of time or an acceleration order.

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

Plant is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function.

The **Site** is the area defined as such in the SCC.

The **Manager** is the chief of Monitoring Division (or any other officer appointed by the Employer and notified to the Contractor, to act in replacement of the Manager) to exercise Employer's right under the contract and is responsible for supervising the execution of the Works and administering the Contract.

Engineer is the designated officer of NEA who is authorized to act on behalf of Manager in all technical matters related to the Works.

Inspector is an individual designated by the Manager to inspect the completed Work, or portions thereof with the authority thereof, to inspect such work for compliance with the General Specifications, Standards, and Scope of Work, and enable to recommend periodic payments to the Contractor for certain work performed.

Site Investigation Reports are those that were included in the Bidding documents and are factual and interpretative reports about the surface and subsurface conditions at the Site. These reports also include those reports which are prepared for construction material sources.

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

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

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

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

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

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

2. Interpretation

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

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

2.3 The documents forming the Contract shall be interpreted in the following order of priority:

(1) Agreement,
(2) Letter of Acceptance,
(3) Contractor's bid,
(4) Special Conditions of Contract,
(5) General Conditions of Contract,
(6) Specifications,
(7) Drawings,
(8) Bill of Quantities, and
(9) Any other document listed in the SCC as forming part of the Contract

3. Language and Law

3.1 The language of the Contract and the law governing the Contract are stated in the SCC.

4. Manager's Decisions

4.1 Except where otherwise specifically stated, the Manager will decide contractual matters between the Employer and the Contractor in the role representing the Employer fairly and impartially.

5. Delegation

5.1 The Manager may delegate any of his duties and responsibilities to other people except to the Adjudicator, after notifying the Contractor, and may cancel any delegation after notifying the Contractor.

6. Communications

6.1 Communications between parties that are referred to in the Conditions of Contract shall be effective only when in writing. A notice shall be effective only when it is delivered.

6.2 If a notice given pursuant to Sub Clause 6.1 fails to be delivered due to failure to trace the address of the party then the notice shall be published as public notice in a National daily newspaper and when the notice is so published then the notice shall be considered to be delivered to the concerned party.

7. Subcontracting

7.1 The Contractor may subcontract with the approval of the Manager, but may not assign the Contract without the approval of the Employer in writing. Subcontracting shall not alter the Contractor's obligations.

8. Other Contractors

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

9. Personnel

9.1 The Contractor shall employ either the key personnel named in the Schedule of Key Personnel, as referred to in the SCC, to carry out the functions stated in the Schedule or other personnel approved by the Manager. The Employer on the Manager's recommendation will approve any proposed replacement of key personnel only if their qualifications and abilities are substantially equal to or better than those of the personnel listed in the Schedule.

9.2 If the Manager asks the Contractor to remove a person who is a member of the Contractor's staff or work force, stating the reasons, the Contractor shall ensure that the person leaves the Site within 7 days and has no further connection with the work in the Contract.

9.3 A child who has not attained the age of fourteen years shall not be employed in any work as a laborer.

9.4 During continuance of the Contract, the Contractor and his subcontractors shall abide at all times by all labor laws, including child labor related enactments, and rules made there under.

10. Employer's and Contractor's Risks

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

11. Employer's Risks

11.1 From the Start Date until the Defects Liability Certificate has been issued, the following are Employer's risks:

(a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment) which are due to

i. use or occupation of the Site by the Employer or for the purpose of the Works, which is the unavoidable result of the Works; or

ii. negligence, breach of statutory duty or interference with any legal right by the Employer or by any person employed by or contracted to him except the Contractor.

(b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Employer or in the Employer's design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed.

11.2 From the Completion Date until the Defects Liability Certificate has been issued, the risk of loss of or damage to the Works, Plant and Materials is an Employer's risk except loss or damage due to

a. Defect which existed on the Completion Date;

b. an event occurring before the Completion Date, which was not itself an Employer's risk; or

c. the activities of the Contractor on the Site after the Completion Date.

12. Contractor's Risks

12.1 From the Starting Date until the Defects Liability Certificate has been issued, the risks of personal injury, death and loss of or damage to property (including, without limitation, the Works, Plant, Materials and Equipment) which are not Employer's risks are Contractor's risks.

13. Insurance

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

a. Loss of or damage to the Works, Plant and Materials;

b. Loss of or damage to Equipment;

c. Loss of or damage to property (except the Works, Plant, Materials and Equipment) in connection with the Contract; and

d. Personal injury or death.

13.2 Policies and certificates for insurance shall be delivered by the Contractor to the Manager for the Manager's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

13.3 If the Contractor does not provide any of the policies and certificates required, the Employer may effect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.

13.4 Alterations to the terms of insurance shall not be made without the approval of the Manager.

13.5 Both parties shall comply with any conditions of the insurance policies.

14. Site Investigation Reports

14.1 The Contractor, in preparing the bid, may refer to any Site Investigation Reports stated in the SCC. In accordance with the Instructions to Bidders, Bidders must make their own arrangements to verify the availability and suitability of construction materials when preparing their Bids.

15. Queries about the SCC

15.1 The Manager will clarify queries on the SCC.

16. Contractor to Construct the Works

16.1 The Contractor shall construct and install the Works in accordance with the Specifications and Drawings.

17. The Works to Be Completed by the Intended Completion Date

17.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program submitted by the Contractor, as updated with the approval of the Manager, and complete them by the Intended Completion Date.

18. Approval by the Manager

18.1 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Manager, who is to approve them if they comply with the Specifications and Drawings.

18.2 The Contractor shall be responsible for design of the Temporary Works.

18.3 The Manager's approval shall not alter the Contractor's responsibility for design of the Temporary Works.

18.4 The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.

18.5 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Manager before their use.

19. Safety

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

20. Discoveries

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

21. Possession of the Site

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

22. Access to the Site

22.1 The Contractor shall allow the Manager and any person authorized by the Manager access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.

23. Instructions

23.1 The Contractor shall carry out all instructions of the Manager which comply with the laws of Nepal.

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

24. Appointment of the Adjudicator/DRB members

24.1 The Adjudicator shall be appointed jointly by the Employer and the Contractor, at the time of the Employer's issuance of the Letter of Acceptance or within 30 days of the Start date of the contract. If, in the Letter of Acceptance, the Employer does not agree on the appointment of the Adjudicator or the parties cannot reach an agreement on the appointment of the Adjudicator, the Employer will request the Appointing Authority designated in the SCC, to appoint the Adjudicator within 15 days of receipt of such request.

24.2 Should the Adjudicator resign or die, or should the Employer and the Contractor agree that the Adjudicator is not functioning in accordance with the provisions of the Contract; a new Adjudicator shall be jointly appointed by the Employer and the Contractor. In case of disagreement between the Employer and the Contractor, within 30 days, the Adjudicator shall be designated by the Appointing Authority at the request of either party, within 15 days of receipt of such request.

24.3 The DRB if specified in Bidding Data/ SCC shall be formed within 30 days of the Start date of the contract. The Dispute Resolution Board (DRB) shall comprise of three members. Each Party shall appoint one member each and the third party who shall act as the Chairman shall be appointed by the two members appointed by the Parties.

24.4 If a DRB member declines to act or is unable to act as a result of death, disability, resignation or termination of appointment, a replacement shall be appointed in the same manner as the replaced member was required to have been appointed.

25. Procedures for Disputes

25.1 If any dispute shall arise due to the decision taken by the Manager, which the Contractor believes was either outside the authority given to the Manager by the Contract or that the decision was wrongly taken, then the parties shall attempt to settle such dispute amicably within 15 days of the notification of the Manager's decision. However if the dispute is not settled amicably or no attempt is made to settle the dispute amicably then the decision shall be referred to the Adjudicator or DRB as specified in Bidding Data/ SCC within 30 days of the notification of the Manager's decision.

25.2 The Adjudicator or DRB shall give a decision in writing within 30 days of receipt of a reference of a dispute pursuant to Sub- Clause 25.1.

25.3 The Adjudicator or the DRB Members shall be paid by the hour at the rate specified in the SCC, together with reimbursable expenses of the types specified in the SCC, and the cost shall be divided equally between the Employer and the Contractor, whatever decision is reached by the Adjudicator or DRB. Either party may refer a decision of the Adjudicator or DRB to an Arbitrator within 30 days of the Adjudicator's or DRB's written decision. If neither party, refers the dispute to arbitration within the above 30 days, the Adjudicator's or the DRB's decision will be final and binding.

25.4 In case of arbitration, the arbitration shall be conducted in accordance with the arbitration procedures published by the institution named and in the place shown in the SCC.

B. Time Control

26. Program

26.1 Within the time stated in the SCC, the Contractor shall submit to the Manager for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works.

26.2 An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.

26.3 The Contractor shall submit to the Manager for approval an updated Program at intervals no longer than the period stated in the SCC. If the Contractor does not submit an updated Program within this period, the Manager may withhold the amount stated in the SCC from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted.

26.4 The Manager's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Manager again at any time. A revised Program shall show the effect of Variations and Compensation Events.

27. Extension of the Intended Completion Date

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

27.2 The contractor shall submit an application to the Employer for extension of time, stating the causes for delay, 7 days before the expiry of the Contract completion date.

27.3 The Manager shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Manager for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

28. Acceleration

28.1 When the Employer wants the Contractor to finish before the Intended Completion Date, the Manager will obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Employer accepts these proposals, the Intended Completion Date will be adjusted accordingly and confirmed by both the Employer and the Contractor.

28.2 If the Contractor's priced proposals for acceleration are accepted by the Employer, they are incorporated in the Contract Price and treated as a Variation.

29. Delays Ordered by the Manager

29.1 The Manager may instruct the Contractor to delay the start or progress of any activity within the Works.

30. Management Meetings

30.1 Either the Manager or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.

30.2 The Manager shall record the business of management meetings and provide copies of the record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken shall be decided by the Manager either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

31. Early Warning

31.1 The Contractor shall warn the Manager at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work increase the Contract Price or delay the execution of the Works. The Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.

31.2 The Contractor shall cooperate with the Manager in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Manager.

C. Quality Control

32. Identifying Defects

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

33. Tests

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

34. Correction of Defects

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

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

35. Uncorrected Defects after Completion Date

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

D. Cost Control

36. Bill of Quantities

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

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

37. Changes in the Quantities

37.1 If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25 percent, provided the change exceeds 1 percent of the Initial Contract Price, the Manager shall adjust the rate to allow for the change.

37.2 The Manager shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 10 percent, except with the prior approval of the Employer.

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

38. Variations

38.1 All Variations shall be included in updated Programs produced by the Contractor.

39. Payments for Variations

39.1 The Contractor shall provide the Manager with a quotation for carrying out the Variation when requested to do so by the Manager. The Manager shall assess the quotation, which shall be given within seven days of the request or within any longer period stated by the Manager and before the Variation is ordered by him.

39.2 If the work in the Variation corresponds with an item description in the Bill of Quantities and if, in the opinion of the Manager, the quantity of work above the limit stated in Sub-Clause 37.1 or the timing of its execution do not cause the cost per unit of quantity to change, the rate in the Bill of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the Variation does not correspond with items in the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of work.

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

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

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

40. Cash Flow Forecasts

40.1 When the Program is updated, the Contractor shall provide the Manager with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.

41. Payment Certificates

41.1 The Contractor shall submit to the Manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously.

41.2 The Manager shall check the Contractor's monthly statement (bill) and certify the amount to be paid to the Contractor.

41.3 The value of work executed shall be determined by the Manager.

41.4 The value of work executed shall comprise the value of the quantities of the items in the Bill of Quantities completed.

41.5 The value of work executed shall include the valuation of Variations and Compensation Events.

41.6 The Manager may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

42. Payments

42.1 Payments shall be adjusted for deductions for advance payments and retention. The Employer shall pay the Contractor the amounts certified by the Manager within 30 days of the date of each certificate. If the Employer makes a late payment, the Contractor shall be paid interest on the late payment in the next payment. Interest shall be calculated from

the date by which the payment should have been made up to the date when the late payment is made at the prevailing rate of interest for commercial borrowing for each of the currencies in which payments are made.

42.2 If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator or an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.

42.3 Unless otherwise stated, all payments and deductions will be paid or charged in the proportions of currencies comprising the Contract Price.

42.4 Items of the Works for which no rate or price has been entered in will not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.

43. Compensation Events

43.1 The following shall be Compensation Events:

a. The Employer does not give access to a part of the Site by the Site Possession Date stated in the SCC.

b. The Employer modifies the Schedule of Other Contractors in a way that affects the work of the Contractor under the Contract.

c. The Manager orders a delay or does not issue Drawings, Specifications, or instructions required for execution of the Works on time.

d. The Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects.

e. The Manager unreasonably does not approve a subcontract to be let.

f. Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of the Letter of Acceptance from the information issued to Bidders (including the Site Investigation Reports), from information available publicly and from a visual inspection of the Site.

g. The Manager gives an instruction for dealing with an unforeseen condition, caused by the Employer, or additional work required for safety or other reasons.

h. Other contractors, public authorities, utilities, or the Employer do not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor.

i. The advance payment is delayed.

j. The effects on the Contractor of any of the Employer's Risks.

k. The Manager unreasonably delays issuing a Certificate of Completion.

43.2 If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date shall be extended. The Manager shall estimate and decide on the basis of facts of the events and supporting documents whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.

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

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

44. Tax

44.1 The Manager shall adjust the Contract Price if taxes, duties, and other levies are changed between the date 30 days before the submission of Bids for the Contract and the date of the last Certificate of Completion. The adjustment shall be the change in the amount of tax payable by the Contractor, provided such changes are not already reflected in the Contract Price or are a result of Clause 46.

45. Currencies

45.1 Where payments are made in currencies other than Nepalese Rupees, the exchange rates used for calculating the amounts to be paid shall be the exchange rates stated in the Contractor's bid.

46. Price Adjustment:

The Contract is subject to price adjustment only for cement and steel reinforcement in accordance with Clause 46.3 of the Conditions of Contract and the governing formula is as given below.

46.1 Prices shall be adjusted for fluctuations in the cost of inputs only if provided for in the SCC. If so provided, the amounts certified in each payment certificate, after deducting for Advance Payment, shall be adjusted by applying the respective price adjustment factor to the payment amounts due in each currency. A separate formula of the type indicated below applies to each Contract currency:

$$Pc = A_c + B_c * \frac{Imc}{Ioc}$$

Where:

Pc is the adjustment factor for the portion of the Contract Price payable in a specific currency "c".

Ac and Bc are coefficients specified in the SCC, representing the nonadjustable and adjustable portions, respectively, of the Contract Price payable in that specific currency "c"; and Imc is the index prevailing at the end of the month being invoiced and Ioc is the index prevailing 30 days before bid opening for inputs payable; both in the specific currency "c".

46.2 If the value of the index is changed after it has been used in a calculation, the calculation shall be corrected and an adjustment made in the next payment certificate. The index value shall be deemed to take account of all changes in cost due to fluctuations in costs.

46.3 **Price Adjustment Formula**

If, price adjustment provision is not applicable pursuant to Sub-clause 46.1 then the Contract is subject to price adjustment only for construction material in accordance with this clause. If the Contract Agreement is concluded following the Invitation for National Level Bidding and after the signing of the Contract Agreement, if the price of the construction materials stated in the SCC increase or decrease in an unexpected manner in excess of ten (10%) percent in comparison to the base price stated in the SCC, then the price adjustment for the increase or decrease of price of the construction material beyond 10% shall be made by applying the following formulas:

For unexpected increase in price

$$P = [R1 - (R0 * 1.1)] * Q$$

For unexpected decrease in price

$$P = [R1 - (R0 * 0.90)] * Q$$

Where:
" P" is price adjustment amount
" R1" is the present price of the construction material
" R0 " is the base price of the construction material
" Q" is quantity of the construction material consumed in construction during the period of price adjustment consideration

Delete the portion "If the Contract Agreement is concluded following the Invitation for National Level Bidding and" of the second sentence.

For the purposes of this sub-clause, the bases to be considered are as follows:

(i) Base Date

The base prices of the construction materials shall be taken as of 30 days before the deadline for submission of the Bid. In case the Base Prices at such day are not available, then the month in which such date falls shall be considered as Base Date.

(ii) Base Price

The Base Price of the steel reinforcement bars and Ordinary Portland Cement that are applicable to the civil works in the Contract shall be as fixed by the District Rate Fixation Committee of the Government of Nepal. In case, the committee has not fixed such rates by the month in which the Base Date falls, then the Base Price shall be the average of the Ex-Factory Price of at least three

manufacturers consisting of (i) manufacturer(s) operating as the Government of Nepal undertaking or under the GON control, and (ii) private manufacturer(s). In case of material not manufactured by GON undertaking company, then the average of Ex-Factory Price of at least three private manufacturers shall be considered.

(iii) Present Date

The Present Date is the date on which the Contractor submits the invoice of the work performed to the Employer. However, the Contractor must submit invoice of the work performed within 15 (fifteen) days of the completion of that particular work. In case the Present Prices at such day are not available, then the month in which such date falls shall be considered as Present Date.

(iv) Present Price

The Present Price of the steel reinforcement bars and Ordinary Portland Cement that are applicable to the civil works in the Contract shall be as fixed by the District Rate Fixation Committee of the Government of Nepal and available in the month in which the Present Date falls. In case, the Committee has not fixed such during this period, then the Present Price shall be the average of the Ex-Factory Price of at least three manufacturers consisting of (i) manufacturer(s) operating as the Government of Nepal undertaking or under the GON control, and (ii) private manufacturer(s) . In case of material not manufactured by GON undertaking company, then the average of Ex-Factory Price of at least three private manufacturers shall be considered.

For the purpose of calculation of price adjustment, the Ex-factory price of the same source shall be taken into consideration.

Conditions Applicable To Price Adjustment

The following conditions shall apply:

(a) Price adjustment will be applicable only if the adjustment date prices increase or decrease by 10% or more from the base date prices.

(b) No price adjustment shall be payable on the portion of the Contract price paid to the Contractor as an advance payment.

(c) The total adjustment (plus or minus) shall be subject to a ceiling amount of fifteen (15) percent of the contract price.

(d) The Price Adjustment provision shall not be applicable if the contract is not completed in time due to the delay caused by the contractor or the contract is a Lump sum Contract or a Fixed Budget Contract.

46.4 The Price Adjustment amount shall be limited to a maximum `of 25% of the initial Contract Amount unless otherwise is specified in the SCC.

46.5 The Price Adjustment provision shall not be applicable if the contract is not completed in time due to the delay caused by the contractor or the contract is a Lump sum Contract or a Fixed Budget Contract.

47. Retention

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

47.2 One half of the retention shall be repaid by the Employer to the contractor within 15 days upon expiry of Defects Liability Period and the Manager has certified that all Defects notified by the Manager to the Contractor before the end of this period have been corrected.

47.3 The remainder of the retention shall be paid by the Employer to the contractor within 15 days after submission of an evidence document issued by the concerned Internal Revenue Office that the contractor has submitted his Income Returns.

47.4 On completion of the whole Works, the Contractor may substitute retention money with an "on demand" Bank guarantee.

48. Liquidated Damages

48.1 The Contractor shall pay liquidated damages to the Employer at the rate per day stated in the SCC for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount defined in the SCC. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.

48.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Manager shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the overpayment of liquidated damage by the contractor, calculated from the date of payment to the date of repayment, at the rates specified in Sub-Clause 42.1.

49. Bonus

49.1 The Contractor shall be paid a bonus calculated at the rate per calendar day stated in the SCC for each day (less any days for which the Contractor is paid for acceleration) that the Completion is earlier than the Intended Completion Date. The total amount of Bonus shall not exceed the amount stated in the SCC. The Manager shall certify that the Works are complete, although they may not be due to be complete.

50. Advance Payment

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

50.2 The Contractor is to use the advance payment only to pay for Equipment, Plant, Materials and mobilization expenses required specifically for execution of the Contract. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Manager.

50.3 The advance payment shall be repaid by deducting proportionate amounts, as stated in the SCC, from payments otherwise due to the Contractor, following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation Events, Bonuses or Liquidated Damages.

51. Securities

51.1 The Performance Security shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount, specified in the SCC, and form and by a bank acceptable to the Employer, and denominated in the types and proportions of the currencies in which the Contract Price is payable. The Performance Security shall be valid until a date 30 days from the date of issue of the Defects Liability Certificate in the case of a bank guarantee.

52. Day works

52.1 If applicable, the Day works rates in the Contractor's bid shall be used for small additional amounts of work only when the Manager has given written instructions in advance for additional work to be paid for in that way.

52.2 All work to be paid for as Day works shall be recorded by the Contractor on forms approved by the Manager. Each completed form shall be verified and signed by the Manager within two days of the work being done.

52.3 The Contractor shall be paid for Day works subject to obtaining signed Day works forms.

52.4 The hiring charge for equipment other than those specified in the Bill of Quantities shall be based on the standard method of calculation.

53. Cost of Repairs

54.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Liability Period shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

E. Finishing the Contract

54. Completion

54.1 The Contractor shall request the Manager to issue a Certificate of Completion of the Works, and the Manager will do so upon deciding that the work is completed.

55. Taking Over

55.1 The Employer shall take over the Site and the Works within seven days of the Manager's issuing a Certificate of Completion.

56. Final Account

56.1 The Contractor shall supply the Manager with a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Manager shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within 60 days of receiving the Contractor's account if it is correct and complete. If it is not, the Manager shall issue within 60 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Manager shall decide on the amount payable to the Contractor and issue a payment certificate.

57. Operating and Maintenance Manuals

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

57.2 If the Contractor does not supply the Drawings and/or manuals by the dates stated in the SCC or the date instructed by the Manager, or they do not receive the Manager's approval, the Manager shall withhold the amount stated in the SCC from payments due to the Contractor.

58. Termination

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

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

a. The Contractor stops work for 30 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Manager.

b. The Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 30 days.

c. The Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation.

d. A payment certified by the Manager is not paid by the Employer to the Contractor within 90 days of the date of the Manager's certificate.

e. The Manager gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Manager.

f. The Contractor does not maintain a Security, which is required.

g. The Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in the SCC.

h. If the Contractor, in the judgment of the Employer, has engaged in corrupt or fraudulent practices in competing for or in executing the Contract. For the purpose of this paragraph:

"corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution. "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Employer, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish Bid Prices at artificial noncompetitive levels and to deprive the Employer of the benefits of free and open competition. "coercive practice

i. The Contractor does not comply with sub-clauses 9.3 and 9.4 of the General Conditions of Contract.

58.3 When either party to the Contract gives notice of a breach of Contract to the Manager for a cause other than those listed under Sub-Clause 58.2 above, the Manager shall decide whether the breach is fundamental or not.

58.4 Notwithstanding the above, the Employer may terminate the Contract for convenience.

58.5 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

59. Payment upon Termination

59.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as stated in the SCC. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer.

59.2 If the Contract is terminated for the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Manager shall issue a certificate for the value of

the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.

60. Property

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

61. Release from Performance

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

62. Suspension of Donor Agency Loan/Credit/ Grant

62.1 In the event that the Donor Agency suspends the loan/ credit/grant to the Employer from which part of the payments to the Contractor are being made:

a. The Employer is obligated to notify the Contractor of such suspension within 7 days of having received the Donor Agency's suspension notice; and
b. If the Contractor has not received sums due to him within the 30 days for payment provided for in Sub-Clause 42.1, the Contractor may immediately issue a 15-day termination notice.

F. Additional Clauses

63. Manager's Duties and Authority

63.1 The Manager's duty and authority are restricted to the extent as stated in the SCC.

64. Quarries and Spoil Dumps

64.1 Any quarry operated as part of this Contract shall be maintained and left in a stable condition without steep slopes and be either refilled or drained and be landscaped by appropriate planting. Rock or gravel taken from a river shall be removed over some distance so as to limit the depth of material removed at any one location, not disrupt the river flow or damage or undermine the river banks. The Contractor shall not deposit excavated material on land in Government or private ownership except as directed by the Manager in writing or by permission in writing of the authority responsible for such land in Government ownership, or of the owner or responsible representative of the owner of

such land in private ownership, and only then in those places and under such conditions as the authority, owner or responsible representative may prescribe.

65. Safety, Security and Protection of the Environment

65.1 The Contractor shall, throughout the execution and completion of the works and the remedying of any defects therein:

a. Have full regard for the safety of all persons entitled to be upon the site and keep the site (so as the same is under his control) and the works (so far as the same are not completed or occupied by the Employer) in an orderly state appropriate to the avoidance of danger to such persons.

b. Provide and maintain at his own cost all lights, guards, fencing, warning signs and watching, when necessary or required by the Manager or by any duly constituted authority, for the protection of the Works or for the safety and convenience of the public or others.

c. Take all reasonable steps to protect the environment on and off the site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation.

d. Ensure that any cut or fill slopes are planted in grass or other plant cover as soon as possible to protect them from erosion. This planting shall follow the recommendations given in manuals and handbooks such as "Vegetation structures for stabilizing highway slopes – A manual for Nepal", department of Roads.

e. Any spoil or material removed from drains shall be disposed off to designated stable tipping areas as directed by the Manager.

f. Shall not use fuel wood as a means of heating during the processing or preparation of any materials forming part of the works.

g. The Manager shall have the power to disallow any working practice or activity of the Contractor or direct that such practices or activities be modified should the Manager consider, on the advice of the relevant Government Departments, that the practices or activities will be harmful to wildlife.

h. Provide on the Site such life saving apparatus as may be appropriate and an adequate and easily accessible first aid outfit or such outfits as may be required by any government ordinance, factory act, etc., subsequently published and amended from time to time.

66. Local Taxation

66.1 The prices tendered by the Contractor shall include all taxes that may be levied in accordance to the laws and regulations in being in Nepal on the date 30 days prior to the closing date for submissions of Bids on the Contractor's equipment, plant and materials acquired for the purpose of the Contract and on the services performed under the Section IV. Nothing in the Contract shall relieve the Contractor from his responsibility to pay any tax that may be levied in Nepal on profits made by him in respect of the Contract.

67. Value Added Tax

67.1 The Contract is not exempted from value added tax. An amount specified in the schedule of taxes shall be paid by the Contractor in the concerned VAT office within time frame specified in VAT regulation.

68. Income Taxes on Staff

68.1 The Contractor's staff, personnel and labor will be liable to pay personal income taxes in Nepal in respect of their salaries and wages, as are chargeable under the laws and regulations for the time being in force, and the Contractor shall perform such duties in regard to such deductions as may be imposed on him by such laws and regulations.

68.2 The issue of the Final Account Certificate pursuant to clause 56 shall be made only upon submittal by the Contractor of a certificate of income tax clearance from the Government of Nepal.

69. Duties, Taxes and Royalties

69.1 Any element of royalty, duty or tax in the price of any goods including fuel oil, lubricating oil, cement, timber, iron and iron goods locally procured by the Contractor for the works shall be included in the Contract rates and prices and no reimbursement or payment in that respect shall be made to the Contractor.

69.2 The Contractor shall familiarize himself with the rules and regulations of Nepal with regard to customs, duties, taxes, clearing of goods and equipment, immigration and the like, and it will be necessary for him to follow the required procedures regardless of the assistance as may be provided by the Employer wherever possible.

69.3 The Contractor shall pay and shall not be entitled to the reimbursement of cost of extracting construction materials such as sand, stone/boulder, gravel, etc. from the river beds or quarries. Such prices will be levied by the local District Development Committee (DDC) as may be in force at the time. The Contractor, sub-contractor(s) employed directly by him and for whom he is responsible, will not be exempted from payment of royalties, taxes or other kinds of surcharges on these construction materials so extracted and paid for to the DDC.

70. Member of Government, etc, not Personally Liable

70.1 No member or officer of GON or the Employer or the Manager or any of their respective employees shall be in any way personally bound or liable for the act or obligations of the Employer under the Contract or answerable for any default or omission in the observance or performance of any of act, matter or thing which are herein contained.

71. Approval of Use of Explosives

71.1 No explosives of any kind shall be used by the Contractor without the prior consent of the Employer in writing and the Contractor shall provide, store and handle these and all other items of every kind whatsoever required for blasting operations, all at his own expense in a manner approved in writing by the Employer.

72. Compliance with Regulations for Explosives

72.1 The Contractor shall comply with all relevant ordinances, instructions and regulations which the Government, or other person or persons having due authority, may issue from time to time regarding the handling, transportation, storage and use of explosives.

73. Permission for Blasting

73.1 The Contractor shall at all times maintain full liaison with and inform well in advance, and obtain such permission as is required from all Government authorities, public bodies and private parties whatsoever concerned or affected, or likely to be concerned or affected by blasting operation.

74. Records of Explosives

74.1 Before the beginning of the Defects Liability Period, the Contractor shall account to the satisfaction of the Manager for all explosives brought on to the Site during the execution of the Contract and the Contractor shall remove all unused explosives from the Site on completion of works when ordered by the Manager.

75. Traffic Diversion

75.1 The Contractor shall include the necessary safety procedures regarding motorized and pedestrian traffic diversion that is needed in execution of the works. The Contractor shall include in his costing of works, any temporary works or diversion that are needed during the construction period. All traffic diversion should be designed for the safety of both the motoring public and the men at work. It shall ensure the uninterrupted flow of traffic and minimum inconvenience to the public during the period concerned. As such, adequate warning signs, flagmen and other relevant safety precautionary measures shall be provided to warn motorists and pedestrians well ahead of the intended diversion as directed by the Manager. All traffic devices used shall be designed in accordance with prevailing Department of Roads Guidelines or as instructed by the Manager.

76. Conduct of Bidders

76.1 The Bidder shall be responsible to fulfill his obligations as per the requirement of the Contract Agreement, Bidding documents, GON's Procurement Act and Regulations.

76.2 The Bidder shall not carry out or cause to carryout the following acts with an intention to influence the implementation of the procurement process or the procurement agreement:

a) Give or propose improper inducement directly or indirectly,

b) Distortion or misrepresentation of facts

c) Engaging or being involved in corrupt or fraudulent practice

d) Interference in participation of other prospective bidders.

e) Coercion or threatening directly or indirectly to cause harm to the person or the property of any person to be involved in the procurement proceedings,

f) Collusive practice among bidders before or after submission of bids for distribution of works among bidders or fixing artificial/uncompetitive bid price with an intention to deprive the Employer the benefit of open competitive bid price]

g) Contacting the Employer with an intention to influence the Employer with regards to the bid or interference of any kind in examination and evaluation of the bids during the period after opening of bids up to the notification of award of contract Section IV.

77. Blacklisting Bidder

77.1 Without prejudice to any other right of the Employer under this contract, the GON, Public Procurement Monitoring Office may blacklist a bidder for his conduct up to three years on the following grounds and seriousness of the act committed by the bidder:

a) If it is proved that the bidder committed acts pursuant to the Sub- Clause 76.2,

b) If the bidder fails to sign an agreement pursuant to ITB clause 33.3,

c) If it is proved later that the bidder/contractor has committed substantial defect in implementation of the contract or has not substantially fulfilled his obligations under the contract or the completed work is not of the specified quality as per the contract,

d) If convicted by a court of law in a criminal offence which disqualifies the bidder from participating in the contract.

e) If it is proved that the contract agreement signed by the bidder was based on false or misrepresentation of bidder's qualification information,

f) Other acts mentioned in the SCC

77.2 A firm declared blacklisted and ineligible by the GON and or concerned Donor Agency in case of donor funded project shall be ineligible to bid for a contract during the period of time determined by the PPMO and or the concerned donor agency.

Section V

Special Conditions of Contract (SCC)

General Conditions of Contract Clause Reference

1.1 The terms "**Facilities**" and "**Works**" are used interchangeably.

The terms **"Final Acceptance Certificate"** and **"Defects Liability Certificate"** are used interchangeably.

Add new definition as follows:
Final Acceptance means the acceptance by the Employer of the Facilities, which certifies the Contractor's fulfillment of the entire Contract. The "Final Acceptance Certificate" shall be issued to the Contractor after the expiry of the last Defect Liability Period provided the Contractor has also fulfilled all its obligations towards the Income Tax Department and the Customs Department of Government of Nepal.

The ***Site*** means the land and other places upon which the Facilities are to be installed, and such other land or places as may be specified in the Contract as forming part of the Site. The Site is located at **Dolakha** *District*.

The ***Donor Agency*** means: Not applicable**,** and ***"loan/credit/grant"*** refers to: Not Applicable

The ***Employer*** is Nepal Electricity Authority (NEA).

The ***Intended Completion Period*** is: **9** months from the date of Contract Effectiveness

The ***name*** and ***identification number*** of the Contract: **DDC/073/074/Line-01.**

The scope of work covered under this shall include ***Installation/Erection, Commissioning & Testing and Handover of 11/0.4/0.23 kv Distribution Line in Dadakharka, Boch, Dudhpokhari, Pawati, Shailungeshwor, Phasku, Bhedpu, Bhusapheda, Kabre, Chetrapa, Mirge, Katakuti, Jhule, Ghyangsukatokar, Magapauwa, Bhirkot, Gairimudi, Melung, Namdu, Jugu, Mali, Suspachemawati, Khopachaku, Babare, Lamidada, Chilankha, Jhyaku, Laduk, Bulung, Kalinchowk, Suri, Orang, Chankhu, Sundrawati, Sunkhani, Marbu, Bigu, Alampu VDCs and Jiri Municipality of Dolakha District*** as defined in the Bidding Data.

*The **Start Date** shall be*: The Effective Date, upon which the period until the Time for Completion of the Facilities shall be counted from, is the date when all of the following conditions have been fulfilled:

(a) This Contract Agreement has been duly executed for and on behalf of the Employer and the Contractor;

(b) The Contractor has submitted to the Employer the performance security and the advance payment guarantee;

(c) The Employer has paid the Contractor the advance payment

(d) The Contractor has been advised that LC has been issued in its favor.

Each party shall use its best efforts to fulfill the above conditions for which it is responsible as soon as practicable.

Despite whatsoever stated above, the Time for Completion of the Facilities shall, at the latest, be counted down from 45 days from the date of Signing of this Contract Agreement.

2.2 *Sectional Completion are*: None

3.1 *The language of the Contract documents* is English.

The law that applies to the Contract is the law of Nepal.

8.1 *Schedule of Other Contractors*: None

9.1 *The Schedule of Key Personnel*: Manager, Project Manager

11.2 *Add a new item the sub-clause 11.2 as follows*:

d. faulty design or workmanship of the Contractor and/or Manufacturer.

13.1 *The minimum insurance covers shall be:*

(a) Cargo Insurance

Covering loss or damage occurring, while in transit from the supplier's or manufacturer's works or stores until arrival at the Site, to the Facilities (including spare parts therefore) and to the construction equipment to be provided by the Contractor or its Subcontractors.

Amount	**Deductible limits**	**Parties insured**	**From**	**To**
110 % of CIP cost	(*)	Contractor	Dispatch Certificate	Arrival to Site

(*) Excess 5% of claimed amount subject to minimum of NRs 20,000 for normal and NRs 80,000 for act of God/major perils and collapse.

(b) Installation All Risks Insurance

Covering physical loss or damage to the Facilities at the Site, occurring prior to completion of the Facilities, with extended maintenance coverage for the Contractor's liability in respect of any loss or damage occurring during the defect

liability period while the Contractor is on the Site for the purpose of performing its obligations during the defect liability period.

(*) Excess 5% of claimed amount subject to minimum of NRs 10,000 for normal period and NRs 30,000 for testing period.

Amount	Deductible limits	Parties insured	From	To
110 % of Contract Value	(*)	Contractor	Dispatch Certificate	Final Acceptance Value

(c) Third Party Liability Insurance

Covering bodily injury or death suffered by third parties (including the Employer's personnel) and loss of or damage to property (including the Employer's property and any parts of the Facilities that have been accepted by the Employer) occurring in connection with the supply and installation of the Facilities.

Amount	Deductible limits	Parties insured	From	To
NRs. 1 million	As in (b) above	Contractor's Employees	Commencement of Works	Defect Liability Certificate
NRs. 1 million	As in (b) above	Employer's Personnel	Commencement of Works	Defect Liability Certificate
NRs. 1 million	As in (b) above	Employer's Personnel	Commencement of Works	Defect Liability Certificate
NRs. 4 million	As in (b) above	Third Party Personnel	Commencement of Works	Defect Liability Certificate

(d) Automobile Liability Insurance

Covering use of all vehicles used by the Contractor or its Subcontractors (whether or not owned by them) in connection with the supply and installation of the Facilities. Comprehensive insurance in accordance with statutory requirements.

(e) Workers' Compensation

In accordance with the statutory requirements applicable in any country where the Facilities or any part thereof is executed.

(f) Employer's Liability

In accordance with the statutory requirements applicable in any country where the Facilities or any part thereof is executed.

(g) Other Insurances

The Contractor is also required to take out and maintain at its own cost the following insurances:

Details: None

Amount	Deductible limits	Parties insured	From	To

The Employer shall be named as co-insured under all insurance policies taken out by the Contractor except for the Third Party Liability, Workers' Compensation and Employer's Liability Insurances, and the Contractor's Subcontractors shall be named as co-insured's under all insurance policies taken out by the Contractor, except for the Cargo, Workers' Compensation and Employer's Liability Insurances. All insurers' rights of subrogation against such co-insured's for losses or claims arising out of the performance of the Contract shall be waived under such policies.

The minimum cover for personal injury or death insurance shall, however, be not less than as per requirements of the Labor Act of Nepal.

13.3 Delete Sub Clause 13.3

14.1 *Site investigation report:* None

21.1 *The Site Possession Date shall be*: As agreed during Contract signing

24.1 *Appointing Authority for the Adjudicator:* Nepal Council of Arbitration (NEPCA)

25.1 *Delete the Sub Clause 25.1 and replace it with the following:*

If any dispute of any kind whatsoever shall arise between the Employer and the Contractor in connection with or arising out of the Contract, including without prejudice to the generality of the foregoing, any question regarding its existence, validity or termination, or the execution of the Facilities—whether during the progress of the Facilities or after their completion and whether before or after the termination, abandonment or breach of the Contract—the parties shall seek to resolve any such dispute or difference by mutual consultation. If the parties fail to resolve such a dispute or difference by mutual consultation, then the dispute shall be referred in writing by either party to the DRB, with a copy to the other party.

25.2 *Add the following at the end of 25.2:*

If the DRB has done so, and no notice of intention to commence arbitration has been given by either the Employer or the Contractor within fifty-six (56) days of such reference, the decision shall become final and binding upon the Employer and the Contractor. Any decision that has become final and binding shall be implemented by the parties forthwith.

25.3 *Fees and types of reimbursable expenses to be paid to the Adjudicator or the DRB members*: As agreed during formation of DRB.

Delete second and third sentences and replace with the following:

If either the Employer or the Contractor is dissatisfied with the Adjudicator's decision, or if the DRB fails to give a decision within twenty-eight (28) days of a dispute being referred to it, then either the Employer or the Contractor may, within fifty-six (56) days of such reference, give notice to the other party, with a copy for information to the DRB, of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given.

25.4 *The Institution whose Arbitration procedures shall be used*: Nepal Council of Arbitration (NEPCA).

The place for Arbitration shall be: Kathmandu, Nepal

26.1 The Contractor shall submit a revised Program for the Works within 30 days from the date of receipt of the Letter of Acceptance.

26.3 *The period between Program updates is*: 90 days

The amount to be withheld for late submission of an updated Program is: All due bills shall be withheld.

27.2 In GCC 27.2, *replace "7 days" by "at least one month".*

27.3 *Add this new sub-clause:*

If the contractor intends to apply for an extension of the Time for Completion, the Contractor shall give notice to the Employer's Representative of such intention as soon as possible and in any event within 14 days of the start of the event giving rise to the delay. Within 28 days of the start of the event giving rise to the delay, the Contractor shall submit full supporting details of his application.

32.1 *Add following before Clause 32.1*

1. The Employer or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications at no extra cost to the Employer. Technical Specifications shall specify what inspections and tests the Employer requires and where they are to be conducted. The Employer shall notify the Contractor in writing, in a timely manner, of the identity of any representatives retained for these purposes.

2. The inspections and tests may be conducted on the premises of the Contractor or its subcontractor(s), at point of delivery, and/or at the Goods' final destination. If conducted on the premises of the Contractor or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Employer.

3. Should any inspected or tested Goods fail to conform to the Specifications, the Employer may reject the Goods, and the Contractor shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the Employer.

4. The Employer's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival in Nepal shall in no way be limited or waived by reason of the Goods having previously been inspected, tested, and passed by the Employer or its representative prior to the Goods' shipment from the country of origin.

5. Nothing in Clauses here above shall in any way release the Contractor from any warranty or other obligations under this Contract.

34.1 *The Defects Liability Period is 12 months.*

36.1 In GCC 36.1, *insert "supply" before the word "construction".*

42. *Delete sub-clauses 42.1, 42.2 and 42.3 and replace with the following:*

General

Payments for insurance, clearing, forwarding and transportation up to site, locally manufactured equipment and construction and installations shall be made only in local currency, i.e. in Nepali Rupees.

Advance Payment

Up to 10 % (Ten percent) of total Contract price may be for the mobilization payment the Bidder shall produce the advance payment bank guarantee, which shall be deducted in proportion to each and every running bill submitted by the contractor. Such bank guarantee shall be made valid up to the entire contract period. Conditional bank guarantee shall not be accepted.

Payment for Supply, Construction and Installations

i. Payments to the Contractor for progress payments shall be made by the NEA to the Contractor within reasonable time after receipt of invoices.

ii. Payments to be made to the Contractor by the NEA other than progress payments shall be made in accordance with the relevant clauses governing each type of payment.

iii. All payments to the Contractor for work performed under the Contract shall be in Nepalese Rupees in accordance with supply and construction items unit prices pursuant to the Bid Price Schedules. Notwithstanding NEA procedural assistance to the Contractor, will neither make any foreign currency payments to the Contractor for any reason whatsoever nor guarantee any foreign currency commitment by the Contractor.

iv. Payments shall be made adhering to actual measurements at site strictly. For any variations in quantity the unit rate of the bid shall prevail.

v. Progress Payment shall be made only after the completion of work under any construction unit complete as mentioned in BOQ as per standard drawing, specification and as directed by the Manager. Contractor shall not receive any amount against material delivered at sites.

Retention

Five percent (5%) from each progress payment for supply of Plant and Materials; Insurance, Clearing, Forwarding and Inland Transportation to Site; and Construction and Installation works shall be retained. The following conditions shall be fulfilled for the payment of such retained amount:

(a) 5% retention amount shall be paid against issuance of Defect Liability Certificate. This Certificate shall be issued upon receipt of income tax clearance certificate by Government of Nepal (GON), Internal Revenue Department (IRD) and custom clearance documents showing the re-export of all the returnable items or tax payment Certificate for items disposed in the Country including fulfillment of all outstanding obligations. If the Contractor fails to clear all the required taxes, custom clearances and all outstanding obligations as mentioned above, such money shall be deducted from this portion of the Retention money.

The Employer shall pay the Contractor the amounts certified by the Manager within 45 days from the date of approval of each certificate.

Income Tax Deduction

From each progress bill, an amount, as determined by the prevalent rules and regulations of GOVERNMENT OF NEPAL, shall be deducted and deposited with the concerned Tax Department in the Country as a deposit towards Contractor's income tax.

43.1 *Delete sub-clause 43.1 (e), (f), (g) & (i)*

44.1 *Delete sub-clause 44.1 and replace with the following:*

1. In the country of Origin

The prices bid by the Contractor shall include all taxes, duties and other charges imposed outside the Employer's country on the production, manufacture, sale and transport of the Contractor's Equipment, Plant, Materials and supplies to be used on or furnished under the Contract, and on the services performed under the Contract.

2. In Nepal

General:

(a) Unless otherwise specifically declared in the contract documents, the prices bid by the Contractor and its suppliers and subcontractors shall include business taxes and other taxes that may be levied in accordance with the laws and regulations in force or in effect in Nepal as of 28 days prior to the closing date for submission of tenders in the Employer's country on the Equipment, Plant, Materials and Supplies (permanent, temporary and consumables) acquired for the purpose of the Contract and on the services performed under the Contract. Whatsoever provisions made in the Contract document shall not relieve the Contractor, its suppliers and subcontractors from their responsibility to pay income tax that may be levied in the Employer's country on profits made by the Contractor, its suppliers and subcontractors in respect of the Contract.

(b) **Value Added Tax (VAT):** if not included in the costs while submitting bids by the Contractor, sub contractor or its nominated sub contractor, shall be eligible for refund on all imported equipment and materials to be supplied and delivered exclusively for use in the Project.

(c) In the event that the origin of any of the contractor's or its subcontractor's or the nominated subcontractor's plant, equipment and materials is India, the provisions for the exemption of customs duties and VAT as is mentioned in this clause shall be applied only under the following conditions. Failure to comply with these conditions will result in application of normal customs duties, VAT as per prevailing rules and regulation of Government of Nepal (GON).

i) should the Contractor request payment in Indian Currency, the equipment and materials must have been imported under the 'Duty Refundable Procedures (DRP)'.

ii) should the Contractor request payment in other convertible currencies, the equipment and materials must have been imported under 'In Bond Transfer Procedures.

Staff Income Tax:

The Contractor's staff, personnel and laborers, and those of its subcontractors, will be liable to pay personal income taxes in the Employer's country, irrespective of whether they are local or foreign nationals on income earned including salaries and wages as applicable under the laws and regulations of Nepal. The Contractor shall perform such duties in regard to Tax Deduction at Source (TDS) thereof as may be applicable by such laws and regulations.

Import License:

The Contractor shall inform the Employer and the Project Manager in writing the details of the equipment and materials to be imported into Nepal for use on the Works at least 56 days prior to arrival of shipment at disembarkation port, and shall submit a formal written request for assistance from the Employer for importation processing. The Employer will assist the Contractor to obtain necessary permits for import of such equipment and materials into Nepal. Import license fees or any other charges shall be at the cost of the Contractor. The Contractor shall be responsible for transport from the Port of disembarkation to the Site or location of the Works. The Contractor shall be fully responsible to determine these rates and the amount payable at the time of preparing tender document and include such costs in its bids. In failing to do so, the Employer shall not be liable to pay such costs and the Contractor shall pay such charges as local or any customs authorities en-route may impose, which will not be an eligible item for refund from the Employer.

Duties on Equipment, Plant, Materials and Supplies:

(a) Notwithstanding the provisions of this document, the Contractor's Plant and Equipment, including essential tools thereof, imported for the sole purpose of executing the Contract on condition of re-export upon completion of the Works, shall be exempt from payment of customs duties, VAT and applicable taxes. However, the Contractor shall deposit the amount or provide a Bank Guarantee to the GON Customs office equal to amount of customs duties and other taxes as per the prevailing laws, rules and regulations of Nepal for those imported equipment, plant, materials and supplies at the time of import. Such deposited amounts shall be refunded, or the Bank guarantee cancelled by the Customs Office after Re-export of those imported equipment, plant, materials and supplies.

(b) Any plant, materials or supplies imported by the Contractor for the performance of the Works but not incorporated in the Works shall be taken out of Nepal within 90 (Ninety) days from the date of issuance of the Performance Certificate. If the Contractor disposes off or consumes any equipment, spare parts, materials or supplies within Nepal, it shall pay all customs duties, VAT, income tax on the sales proceeds and taxes applicable on such items under the laws and regulation of Nepal in force.

(c) Equipment, plant, materials and supplies, imported by the Contractor for execution of the Works, shall be subject to payment of customs duty at a special rate of one percent (1%) of CIP or Customs entry point value. This customs duty shall be paid by the Contractor at the time of import and will be reimbursed by the Employer to the Contractor upon submission of the original receipt issued by the Customs Department.

(d) VAT shall be exempted on all imported materials & equipment purchased for the use in the Works (shall be reimbursed by the Employer in case the Employer is unable to avail exempt facility).

(e) VAT applicable on plant & equipment supplied directly from

manufacturing plant in the Employer's country shall be reimbursed.

(f) The Contractor shall maintain records satisfactory to the Employer documenting use of all Plant, Materials and Supplies imported into and/or procured for the performance of the Works. If any of such Plant, Materials and/or Supplies, imported into Nepal or otherwise supplied to the Project at a special or preferential rate of Customs Duties or taxes, are misused or found to be used or appropriated for any purpose other than the Project, the Contractor shall be held fully responsible, and liable to pay customs duties, VAT and other taxes and/or any penalties as may be imposed in accordance with the prevailing laws and regulations of Nepal.

(g) Income tax assessed in accordance with the prevailing Income Tax Act of Nepal and as per the provision of any specific Double Taxation Agreement, shall be imposed on the Contractor, its sub-contractors and nominated sub- contractors. An advance income tax as per the prevailing income Tax Act and Finance Act shall be deducted from the monthly progress payment of the Contractor.

(h) The Contractor shall pay all duties, taxes, fees and contributions levied in Nepal in Nepalese Rupees as directed by the relevant governmental department or office, or any other local statutory agency or body in accordance with the relevant rules and regulations.

(i) The provisions of this clause shall apply equally to foreign subcontractors or nominated subcontractors of the Contractor employed for the Works.

(j) The Contractor and any foreign subcontractors or nominated subcontractors employed on the Works, if not already registered in Nepal, shall be required to get registered with the Inland Revenue Department (IRD) for the purpose of the Contract, which shall be undertaken within 28 days after signing of the Contract Agreement. The Contractor, sub-contractor or the nominated subcontractor shall submit certified copies of the Registration Certificate(s) to the Manager within 14 days of registration.

(k) Other local fees and charges (toll taxes) shall be applied in accordance with the prevailing laws and regulations of Nepal.

The Contractor shall pay all applicable customs & taxes and the Employer shall reimburse the same at the earliest.
Locally available goods, construction materials including fuel, lubricating oil, cement, timber, iron and steel goods, etc. shall be procured locally. All taxes for such goods procured from the local market shall be included in the Contract Rates and Prices and no reimbursement or payment in that respect shall be made to the Contractor.

45.1 *Delete sub-clause 45.1 and replace with the following:*

Payments shall be made in Nepalese currencies.

46. *This is fixed price contract.*

46.1 *Delete sub-clauses 46.1 to 46.5: This is fixed price contract.*

47.1 *The proportion of payments retained is five (5) percent.*

48.1 The liquidated damages for the whole of the Works are 0.05 % of the final Contract Price per day.

The maximum amount of liquidated damages for the whole of the Works is 10% of the final Contract Price.

49.1 The bonus for the whole of the Works is zero (0) percent of the final Contract Price per day.

The maximum amount of Bonus for the whole of the Works is zero (0) percent of the final Contract Price.

50.1 The Advance Payment shall be limited to Ten percent (10%) of the initial Contract price excluding the provisional sums, day works and VAT and shall be made to the Contractor upon submission of acceptable Bank Guarantee for advance payment.

50.3 *The Advance Payment will be recovered as follows*:

Deduction will be at the rate of 10% of the respective invoices until such time as the advance payment has been repaid.

51.1 If the bid price is within 85% of the official estimate value: five percent of the Bid Price including VAT. If the bid price is less than 85% of the official estimate value, the performance security shall be: (85% of Estimate – Bid Price including VAT) x 0.5 + five percent of Bid Price including VAT. It shall be in the currency of Bid. In case of joint venture (J/V), the Performance Security shall be in the name of J/V. The standard form(s) of Performance Security acceptable to the Employer shall be "an Unconditional Bank Guarantee" acceptable to the Employer of the type presented in the Bidding Documents.

57.1 *The date by which operating and maintenance manuals are required is*: Prior to the issuance of the Certificate of Completion.

The date by which "as built" drawings is required is: Prior to Completion Certificate.

Moreover, should any change is required in the "as-built" drawings because of rectification of any defects within the Defects Liability Period, such changes shall be incorporated and "as-built" drawings shall be updated accordingly before issuance of the Final Acceptance Certificate.

57.2 The amount to be withheld for failing to produce "as built" drawings and/or operating and maintenance manuals by the date required is: Full value of last Invoice.

58.2 (g) *The maximum number of days is*: 30 days; consistent with clause 48.1 of liquidated damages.

59.1 *The percentage to apply to the value of the work not completed, representing the Employer's additional cost for completing the Works, is:* 50%.

The Manager has to obtain the specific approval of the Employer for taking any of the following actions:

a. Approving subcontracting of any part of the works under General Conditions of Contract Clause 7;

b. Certifying additional costs determined under General Conditions of Contract Clause 43;

c. Determining the extension of the intended Completion Date under General Conditions of Contract Clause 27;

d. Issuing a Variation under General Conditions of Contract Clause 1 and 38, except in an emergency situation, as reasonably determined by the Manager; emergency situation may be defined as the situation when protective measures must be taken for the safety of life or of the works or of adjoining property.

e. There shall be no changes in unit rates quoted by the contractor pursuant to clause 37 of General Conditions of Contract.

Section VI. Sample Forms of Securities

Bid Security (Bank Guarantee)

Whereas, *[name of Bidder]* (hereinafter called "the Bidder") has submitted his bid dated *[date]* for the construction of *Tender No.:* .....(hereinafter called "the bid"). Know all people by these presents that We *[name of Bank]* of *[name of country]* having our registered office at *[address]* (hereinafter called "the Bank") are bound unto ..... (hereinafter called "the Employer") in the sum of *[amount]* for which payment well and truly to be made to the said Employer, the Bank binds itself, its successors, and assigns by these presents.

Sealed with the Common Seal of the said Bank this *[day]* day of *[month]*, *[year]*.

The conditions of this obligation are:

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

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

(a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to Bidders, if required; or

(b) fails or refuses to furnish the Performance Security, in accordance with the Instruction to Bidders; or

(c) does not accept the correction of the Bid Price pursuant to Clause 27,

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

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

Date: _____ Signature of the Bank: _____

Witness: _____ Seal: _____

_____

Performance Bank Guarantee (Unconditional)

To:
Nepal Electricity Authority
Distribution and Consumer Services Directorate
Kathmandu Regional Office
Durbar Marg, Kathmandu
Tel. : + 977 (01) 4153168
Fax : + 977 (01) 4153223
Dolakha Distribution Centre Office
Tel: +977-49-421773
Fax: +977-49-421773

Whereas *[name and address of Contractor]* (hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. .: ..... to execute ..... (hereinafter called "the Contract");

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

And whereas we have agreed to give the Contractor such a Bank Guarantee;

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

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

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

This Guarantee shall be valid until a date 30 days from the date of issue of the Defect Liability Certificate.

Signature and seal of the Guarantor: _____

Name of Bank: _____

Address: _____

Date: _____

Bank Guarantee for Advance Payment

To: *[name and address of Employer]*

[name of Contract]

Madam/Gentlemen:

In accordance with the provisions of the General Conditions of Contract, Clause 50 ("Advance Payment") of the above-mentioned Contract, *[name and address of Contractor]* (hereinafter called "the Contractor") shall deposit with ..... a Bank Guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of *[amount of Guarantee] [amount in words]*

We, the *[Bank or Financial Institution]*, as instructed by the Contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to ..... on his first demand without whatsoever right of objection on our part and without his first claim to the Contractor, in the amount not exceeding *[amount of Guarantee] [amount in words]*.

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

The validity period of the guarantee shall be 30 days beyond the period scheduled for repayment of the advance payment and the guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until the ..... receives full repayment of the same amount from the Contractor. Any demand in respect of this Guarantee should reach the Bank not later than [date].

Yours truly,

Signature and seal: _____

Name of Bank: _____

Address: _____

Date: _____

Section VII

SUPPLEMENTARY CONDITIONS OF CONTRACT

1. Construction Management

1.1 The overall management of the supply, delivery and construction activities of the Contractor shall be the right of the NEA and shall be performed by the Personnel authorized by the NEA. The Authorized Personnel shall supervise and administer the Contract work and inform the NEA.

1.2 The Authorized Personnel shall:

a) Identify specific portions of the total works and establish priorities of construction works of those portions to permit an orderly rehabilitation of existing facilities and reduce consumer outages to the minimum extent practicable.

b) Revise and approve all Contractors' rolling work schedules to ensure the compliance with system construction and/or rehabilitation priorities and sequences, and co-ordinate necessary outages with local NEA, operations forces.

c) Supervise and inspect the work completed by the Contractor for conformance with the Schedule of Requirements, Construction Standards, approved Construction Drawings and other Contract requirements.

d) Carry out field measurement of the Works carried out by the Contractor and maintain a field measurement book to assess the progress made every day/month. Measurement so made shall be the basis for raising invoices of the Contractor for making progress payment for that part of the Works completed.

e) Review and recommend for the approval of Contractor's periodic invoices for completed construction works.

f) Prepare and issue the certificates of Provisional and Final Acceptance and make such payments to the Contractor as required by the Contract.

g) Supervise the issue, receipt, and accounting of NEA-furnished materials and equipment to, and from the Contractor.

h) Assist to administer the Contract in all respects.

1.3 The Engineer, as assigned by the NEA, shall assist the Authorized Personnel in all general functions listed in Clause 1.2 above, and in particular, the general functions described in Clause 1.2 a), b), and c).

(a) The Inspector(s) as assigned by the Director or the Authorized Personnel shall inspect the work performed by the Contractor for compliance with the Schedule of Requirements,

Construction Standards and the approved construction drawings and maintain records of such approved works to enable periodic payments to the Contractor for work performed, and acceptance of the Work.

2. Contractor's Workforce

2.1 The Contractor shall employ only the experienced, competent and skilled staffs. Staffs shall include engineers, surveyors, draftsmen, superintendents, foremen, lineman, laborers, mechanics, drivers, and persons of other skills necessary to perform the Works in accordance with the Construction Standards, the approved design and construction drawings, structure data sheet, manufacturer's recommendations, to perform the necessary administrative and warehouse functions, and to complete the Works in accordance with the Contract Execution Schedule.

All line construction staff shall be examined for working skills and must demonstrate to the NEA's satisfaction, working skills and knowledge of all the materials and equipment they will be assigned to work with before being assigned to field work.

2.2 The Contractor shall maintain his workforce in sufficient numbers and skills at all times to maintain the smooth execution of works in accordance with the approved Rolling Construction Schedule.

2.3 Whenever, in the opinion of the Authorized Personnel, any employee of the Contractor is unable to perform his assigned task adequately, incompetent, careless, or obstructs the progress of Work, the Contractor shall, on receipt of written notice from the Authorized Personnel, discharge, or otherwise remove that employee from the Work and not employ the employee again under the Contract.

2.4 During the progress of work, the Contractor shall assign to the work to an experienced and formally qualified engineer and experienced construction superintendent, both of who can communicate well in the spoken and written English language, and who shall be designated in writing to the Authorized Personnel as an authoritative representative of the Contractor.

2.5 The Contractor's workforce shall at all times during the work have in their immediate possession the latest approved Construction Standards, and Structure Data Sheets covering the work that is being performed. The Contractor shall provide copies of the relevant plans and Standards to his construction workforce at his cost. In the event that the Contractor’s workforce are found to be working without possession of the above-listed construction documents, the Inspector shall have the right to stop the work being performed until such time as the workforce is provided with the required documents.

3. Materials (Not Applicable)

3.1 All line materials except some that are mentioned as "Provided by NEA" and equipment required to complete the Works shall be provided by the Contractor. The line materials delivered at the site shall be physically verified by Employer. Minute shall be prepared jointly and submitted to NEA for verification.

4. Rain Days

4.1 A Rain Day is defined as any scheduled work day during which rain occurs, steadily or intermittently, for more than four (4) days. Rain Days shall be confirmed by the Local District authorities or the Authorized Personnel to the Contractor in writing.

4.2 The Contractor shall not be required to perform the work during periods of moderate to heavy rainfall, and Contractor's personnel shall not perform any work on erected structures during periods of rainfall. The Contractor shall not conduct any construction activity closely adjacent to, or in connection with, any energized circuits during periods of rain or any days of intermittent rain.

4.3 The Contract Execution Schedule does not include any allowance of time for construction days lost due to rain.

5. Workmanship

5.1 The Contractor shall employ suitably skilled persons in all tasks necessary to perform the work in accordance with the Contract Specification and in a manner and result acceptable to the Authorised Personnel/ Engineer.

5.2 All materials shall be installed in correct and complete manner in strict compliance with NEA's specification of material and Manufacturer's recommendations and Construction Standards.

5.3 The Contractor shall replace, repair, re-align, re-install, or otherwise correct the workmanship or installation of materials, determined by the Authorized Personnel to be sub-standard and un-acceptable. The remedial measures shall be performed by the Contractor at no additional cost.

6. Safety

6.1 The Contractor shall ensure that all activities areas, and personnel involved in performing the Works, comply fully with all safety regulations or laws promulgated by "GON" with respect to life and property.

6.2 The Contractor shall also insure that all reasonable safety measures, including all measures specified in the contract and be accomplished at all times during the execution of the Work.

7. Take/Handover of the System

7.1 The Contractor shall handover the entire distribution system to the NEA.

Section VIII

PRICE SCHEDULES/ TECHNICAL PREAMBLES

1 General Information

This describes the requirements of those items which have not been included in the Construction Standard and which are of general nature.

(a) All the Construction Units shall include the cost of preparation, revision and reproduction of supporting Structure Data Sheets (SDS) and drawings.

(b) All Construction Units shall include the cost of cutting and painting bolt ends extending more than 30 mm beyond the nut if necessary.

(c) All Construction Units shall include necessary cost for trimming and cutting of trees to clear route for new or existing works. Trimming and Cutting of trees shall be the responsibility of the Contractor but NEA shall assist to obtain necessary permit for the same.

2. Construction Unit, 1

11 kV, 0.4/0.230 kV Supports, Insulators and Hardware

This Construction unit is for the installation of single, double, triple or four pole structures fitted with cross-arm, insulators and other hardware.

This covers the work such as Supply and delivery of all the necessary materials from respective factory warehouse, excavate pole hole, set pole, if necessary, back fill and tamp poles, compact the back filling adequately, realign, if necessary, install framing including insulators and hardware all complete.

Support Type	Description	Reference Specification/Standard	
		Equipment	Construction
A12	11 kV, Single Arm Structure		
A22	11 kV, Single Pole Dead end type Structure		
B	Single Arm Tapping Accessories		
C1	11kV Double Pole Structure-Intermediate Support		
C2	11kV Double Pole Dead End Assembly		
D	Already Erected Single Pole		
E	11kV Three Pole Structure-Parallel Type		
F	11kV Four Pole Structure		
G	11 kV Dead End tower		

3. Construction Unit, 2

11 kV Conductor and Accessories

This construction unit is for the stringing of 11 kV and 400/230 V conductor and accessories.

This unit covers the Supply and delivery of all the necessary materials from respective factory warehouse to the site, set up wire stringing reels, pulling lines, stringing blocks on poles/cross-arms, install and remove temporary guard structures, if necessary, install and remove temporary structures to keep conductor from dragging on earth, if necessary. Pull conductors, sag and dead-end, remove conductor from stringing blocks, tie to insulators, make necessary compression joints, and connect jumpers and complete installation.

Conductor Type	Description	Reference Specification/Standard	
		Equipment	Construction
A	11 kV, three wire Rabbit		
B	400 V, four wire Weasel		
C	400 V, three wire Weasel		
D	230 V, two wire Weasel		
E	230 V, one wire phase addition for street light		

4. Construction Unit, 3

Stays and Anchors

This Construction unit is for the installation of complete single, double, flying or bow type stay assembly.

This Unit includes the Supply and delivery of all the required materials from factory warehouse to site, excavate hole, install anchor rod, back fill with gravel if specified, ramp till well compacted, install stay wire and stay insulator, adjust tension and further adjust tension if necessary after installation and stringing of conductor. Provide sand and stone as a local material for the installation of stay for HT/LT distribution line and install the stay sets as per the construction standard drawings.

Type of Stays and Anchors:

Stay Type	Description	Reference Specification/Standard	
		Equipment	Construction
A	HT/LT Single Stay		
B	Ht/LT Double Stay		
C	HT/LT Flying stay		

5. Construction Unit, 4

11/0.4 kV Transformers

This Construction unit is for the installation of 11/0.4 kV outdoor pole mounted type distribution transformer and associated lightening arresters, drop out fuse set, low voltage protection panel, cables, earthings, Transformer Pole Structures and related works for complete installation.

This will cover the supply and delivery of all the necessary materials from respective factory warehouse to the installation site, pole mount transformer on elevated platform, install LV cable between transformer LV terminals and protection panels, including cable and jumper connections, connect LV neutral earth terminal with earth lead etc.

S.N.	Transformers Capacity	Reference Specification/Standard	
		Equipment	Construction
A	100 KVA, 11/0.4 kV, three Phase Transformer		
B	50 KVA, 11/0.4 kV, three Phase Transformer		
C	25 KVA, 11/0.4 kV, three Phase Transformer		

6. Construction Unit, 5

11 KV Distribution Cut Out

The construction unit is for the installation of 11 kV Drop Out set with complete accessories for the connection as a sectionlizer in the branch tapping point of main 11 kV Line.

S.N.	Disconnect Switch	Reference Specification/Standard	
		Equipment	Construction
1	11 kV Drop Out Set with complete Accessories		

7. Construction Unit, 6

This Construction unit covers all the necessary works for the preparation of final as built drawing, Structural Data Sheet, testing, charging of electric distribution system and handover with documentation to NEA.

8. Construction Unit, 7

Labour Rates

This construction unit is intended to use for such work, which has not been defined by a Construction standard. Contractor shall submit to NEA, along with the bid, a written description of work which may have to be performed under certain situation and which was not foreseen during the design and study. This shall include location, number and classification of personnel to perform the work and estimated number of hours/day per man. This construction unit is to be charged only upon the approval of NEA. This unit includes necessary transport of equipment to perform the assigned work.

S.N.	Designation	Rate per hour or per day
1	Engineer	
2	Supervisor	
3	Foreman	
4	Lineman/ Electrician	
5	Helper	
6	Labor/Unskilled Jyami	

Note: The construction unit outlined in these sections contains general information and may vary. The actual construction units will be as per BOQ of the financial proposal.

CONSTRUCTION STANDARD
&
DRAWINGS

Table of Contents

Section IX-A SCOPE OF WORKS	**2**
Section IX-B STANDARD SPECIFICATIONS	**5**
Section IX-C CONSTRUCTION STANDARDS	**13**
Section IX-D SPECIAL REQUIREMENTS FOR EXECUTION OF WORKS	**31**
Section IX-E DRAWINGS AND MATERIAL LISTS	**39**

Section IX-A

SCOPE OF WORKS

SCOPE OF WORKS

1.1 General

The Bidding Document covers the installation/erection, commissioning, testing and handover of 0.4 kV distribution line and all the necessary structural, mechanical and electrical works as mentioned, specified or referred to in the technical specifications and bill of quantities.

1.1 Equipment and Materials

All equipment and materials shall be delivered by the Contractor to his designated store area except ACSR conductor and ABC cable. Such material shall be delivered, unloaded and placed in stores in an acceptable manner and approved by the Employer or his authorized representative.

1.2 Erection

When the installation of distribution system has been completed and accepted by the Employer, the Contractor will submit the inventory of erected assemblies to the Employer for approval and final payment.

Before the Taking-Over of the work, the Contractor shall clean up all areas in which he has worked, place all unused materials in the designated stores and settle any claims, which may have resulted from his work and occupancy of the area. He shall then remove all equipment, vehicles, manpower and facilities, which he has brought in, except those which may be specifically exempt by the Employer.

1.3 Scope of Work

Installation/Erection, Commissioning & Testing and Handover of 11/0.4/0.23 kV Distribution Line in Various VDCs of Dolakha district as given in the table below. Since this is fixed price contract and work is not limited to specified quantities specified in BOQ. Upon the arrival of materials form NEA, the work volume of individual items may be changed so as load centre. Following are the VDC form rural electrification budget head, other form the budget of NEA, will be added as per requirement of site and availability of materials.

S.N	Description/VDC	Erection of 10 meter steel pole	Erection of 8 meter steel pole	Stringing of 0.3ACSR of 0.4 kv	Stringing of 0.5ACSR of 11kv	Installation of Stay rod set	15 Kva transformer Installation with tower set D/O, L/A,Earthing set,Mccb
1	**Dadakharka**	4	8	1.008	0.756	4	0
2	**Pawati**	2	12	1.512	0.378	4	0
3	**Shailungeshwor**	4	8	1.008	0.756	4	0
4	**Phasku**	2	12	1.512	0.378	4	0
5	**Bhedpu**	0	16	2.016	0	4	0
6	**Jhule**	0	16	2.016	0	4	0
7	**Ghyangsukathokar**	0	16	2.016	0	4	0
8	**Bhirkot**	3	0	0	0.567	0	1
9	**Melung**	0	20	2.52	0	5	0
10	**Boch**	0	16	2.016	0	4	0
11	**Dudhpokhari**	0	16	2.016	0	4	0
12	**Bhusapheda**	0	16	2.016	0	4	0
13	**Katakuti**	0	16	2.016	0	4	0
14	**Magapauwa**	0	16	2.016	0	4	0
15	**Kalinchowk**	0	4	0.504	0	1	0
16	**Kabre**	0	16	2.016	0	4	0
17	**Chetrapa**	0	16	2.016	0	4	0
18	**Mirge**	0	16	2.016	0	4	0
19	**Gairimudi**	0	20	2.52	0	5	0
20	**Namdu**	0	20	2.52	0	5	0
21	**Jugu**	0	16	2.016	0	4	0
22	**Mali**	0	16	2.016	0	4	0
23	**Jiri**	0	16	2.016	0	4	0
24	**Babare**	0	8	1.008	0	2	0
25	**Jhyaku**	0	8	1.008	0	2	0
26	**Mali**	0	4	0.504	0	1	0
27	**Marbu**	0	8	1.008	0	2	0

28	**Sunkhani**	0	4	0.504	0	1	0
29	**Sundrawati**	0	4	0.504	0	1	0
30	**Suri**	0	8	1.008	0	2	0
31	**Suspachemawati**	0	20	2.52	0	5	0
32	**Khopachaku**	4	0	0	0.756	2	0
33	**Lamidada**	0	8	1.008	0	2	0
34	**Chilankha**	4	0	0	0.756	2	0
35	**Laduk**	0	8	1.008	0	2	0
36	**Bulung**	0	8	1.008	0	2	0
37	**Orang**	4	0	0	0.756	2	0
38	**Chankhu**	4	0	0	0.756	2	0
39	**Bigu**	18	0	0	3.402	8	0
40	**Alampu**	20	0	0	3.78	10	0

1.4 Nature of Work

The scope of works under this contract shall consist of but not limited to the following:

1. Survey for line route and staking.
2. Preparation of drawings for laying out of lines.
3. Installation, testing and commissioning of lines .
4. 11/0.4/0.23 KV line Installation and conductor stringing work with all the necessary hardware and fittings.

Section IX-B

STANDARD SPECIFICATIONS

SECTION IX-B : STANDARD SPECIFICATIONS

TABLE OF CONTENTS

Clause		Page No.
1.	General	7
2.	Route of Circuits	7
3.	Technical Documentation	7
4.	Material Storage	8
5.	Excavations	9
6.	Pole Setting	10
7.	Safety	10
8.	Tests	Error! Bookmark not defined.
9.	Demolition	11
10.	Cleanup	Error! Bookmark not defined.
11.	Tree Cutting and Trimming	12
12.	Interruptions to Existing Service	13

1. General

1.1 These Standard Specifications, together with the Construction Standards, shall govern the performance of the Works and shall be the basis for inspection and acceptance of the Work by the NEA.

1.2 The Standard Specifications and the Construction Standards shall be considered as mutually inclusive, and the conditions stated in each shall supplement the other as appropriate.

1.3 All Standard Specifications shall be followed at all times by the Contractor unless specifically accepted in writing by the NEA, or unless some aspects of the work covered by these General Specifications are not required by the Scope of Work.

2. Route of Circuits

2.1 To the greatest extent practicable, all overhead circuits should be located along streets or travelled ways ordained by the Municipality & Village Development Committee or required authority as public property, except as required for Service drops and circuits to individual consumers.

2.2 To the greatest extent practicable, all facilities should be located on public property, and in no case shall private property be occupied unless specifically authorized by the NEA. The Office shall obtain any required permits for occupancy of public or private Right-of-Way.

3. Technical Documentation

3.1. All technical documentation as specified herein, shall be prepared by the Contractor. The Contractor shall employ skilled drafting personnel to produce all documentation specified. All technical documentation prepared by the Contractor shall be subject to the approval of the NEA prior to acceptance by the NEA of such documentation. All technical documentation shall be prepared in the English language.

3.2. Documentation shall be prepared using the following mediums:

a) Mylar material, with a minimum thickness of 0.127 millimetres, shall be used to produce the base Structure Data Sheet, As-Built Drawings and other drawings specified by the NEA.

b) Standard drafting vellum shall be used to produce small area plottings, profiles of line-sections and centre-line plotting necessary for the development of Structure Data Sheets and As-built Drawings.

3.3 Structure Data Sheets (SDS) shall be prepared in accordance with the F1 format contained in Volume 2, Section X. Structure Data Sheets shall be prepared by the Contractor showing his proposed construction details for erection of facilities in accordance with the Construction Standards. The SDS shall be prepared after the centre-line survey and staking is completed, for any line section designated by NEA, and shall be submitted to NEA for approval prior to any construction of the facilities shown in SDS. Submission of SDS for approval shall be in the form of A3 photocopy in clearly legible copy. Any unclear or illegible form entry or reproduction shall be rejected. NEA may require any revisions to be made, at their sole discretion, prior to approval of the SDS for construction. An approved and field checked SDS is required for all Construction Units invoiced by the Contractor. Field checking of the SDS shall be performed jointly by the Contractor and NEA representative. The SDS and As Built Plan are intended as permanent records for NEA. Any construction performed prior to the Contractor's receipt of approved SDS from NEA shall be completely at the Contractor's risk, and NEA shall have the right to require any correction due to the un-approved construction activities.

3.4 As-Built Drawings shall be prepared by the Contractor in the general format provided by the NEA. Drawing size shall be approximately 841 x 597 mm overall and the scale shall be 1:10,000, 1:2,000. The NEA shall provide any available environmental background data for inclusion on the various drawings and the Contractor shall record (in ink) all facilities as-built.

3.5 The Contractor shall prepare other technical drawings, in the same medium and format as the As-Built Drawings, for As-Built Drawings index sheets, pole maps, and One-Line Diagrams as specified and required by the NEA.

3.6 The Contractor shall and prepare and furnish Transformer Record documents, in the format specified by the NEA, for each transformer installed.

4. Material Storage

4.1. The Contractor shall transport all materials and equipment for the work in the given site. The Contractor shall provide all labour, equipment, and vehicles to load and transport said materials and equipment to the Contractor storage facilities and worksites as required. All materials and equipment turned in to the NEA reclaimed after demolition of existing facilities if any shall be transported to the NEA warehouse and unloaded in the same manner.

4.2. Worksite

a) Extended storage of materials along the routes of lines will not be permitted. All small items of material shall be provided to the work crews on a daily basis and no small items of materials may be stored on the worksite overnight.

b) ABC cable and conductor reels may be spotted at the worksites for a short period prior to installation provided that crating and reel lagging are intact to protect the items. Poles may be spotted at structure locations for short periods prior to setting.

c) All poles, ACSR conductor , ABC cable placed at the worksites shall be located so that the items are not subject to damage and do not impede pedestrian or vehicular traffic.

d) Any damage caused by imprudent placement of equipment and materials by the Contractor at the worksites shall be corrected by the Contractor, in a manner acceptable to the NEA, at the Contractor's cost.

4.3. Contractor Storage Facility

a) The Contractor shall be financially responsible for the secure and proper storage of materials to prevent loss or damage to any materials.

b) Any items of material and equipment contained in degradable packaging shall be stored under roof and protected from moisture. Other materials, except as specified in subparagraph (c) below shall be stored and covered in a well-drained level area, free from accumulation of surface water.

c) Transformers, disconnecting switches, and reels of ABC cable may be stored outdoors in a well-drained, level area free from accumulation of surface water. Reels of ABC cable may be stacked on reel sides not more than three (3) reels high. ABC cable reels shall be placed on Wood pallets, wood lagging, or well-gravelled level surface.

d) Packaged items of material and equipment shall not be uncrated, or have packaging removed, prior to installation. The Contractor shall exercise due caution and care in the transportation, storage, and handling of all materials which are to be provided by the NEA. Equipment consisting of, or containing, porcelain insulation should be transported and handled to avoid cracks or chipping. Lagging or other protection, shall not be removed from ABC cable reels until the cable is to be installed.

e) The ends of installed cables shall be sealed immediately after being cut with a non-absorbent covering fastened around the outer jacket.

5. Excavations

5.1. All excavations made for the installation, or demolition, of facilities shall be accomplished in a timely manner according to the scheduled installation. Required excavations shall be opened, material installed, and backfill placed, as specified, in a continuing operation to the greatest extent practicable.

5.2. Any excavation left open during discontinuous construction which is accessible to the public or along public thoroughfare, shall be covered or barricaded, and marked by suitable visual means, to prevent a public hazard.

5.3. Excavations shall be properly located and sized for the intended use. Pole and stay plate/ anchor excavations shall be correctly sized to retain undisturbed soil to the greatest extent consistent with the means of excavation. Pole holes shall be made by power-driven auger or by manual methods; power-driven shovel equipment shall not be used. Pole holes shall be excavated to the specified depth with no tolerance shallow and tolerance of ten (10) centimeters deep. The bottom of pole holes shall be undisturbed soil, gravel or rock. Stay plate holes shall be excavated by manual methods to specified depth with no disturbed soil in the direction of the anchor rod.

5.4. All excavations shall be backfilled with excavated material, or as specified for the installation. Backfill shall be free of foreign materials and shall be well tamped with excess backfill graded over the excavated area to prevent depressions resulting from eventual natural compaction. Large amounts of excess backfill shall be removed from the site by the Contractor if so directed by employer. If so directed by NEA, The Contractor shall provide suitable backfill materials for excavations where existing removed materials is insufficient, or inappropriate, to provide suitable grading of the excavated area.

6. Pole Setting

6.1 Poles shall be set in accordance with the appropriate Sections of the Construction Standards and subparagraph 6 above.

6.2 Each pole shall be assigned a unique construction number at the time of structure staking for preliminary identification and preparation of structure Data Sheets (SDS).

6.3 Subsequent to the preparation and approval of SDS, and prior to provisional acceptance of a given line section, the NEA shall provide the Contractor with unique permanent pole numbers. The Contractor shall then apply the specified permanent pole numbers to each pole with black oil-based paint in neat clear English letters and/or Arabic numerals. Permanent pole numbers shall be applied in letters/numerals five (5) centimetres in height at a point on the pole 1.6 meters above ground level. Numbers shall be applied on the side of the pole facing the adjacent street or travelled way.

7. Safety

7.1 The Contractor shall take all measures required to safeguard the public, public and private property from any hazard to life, limb, or property which may arise during the performance of the construction of the works. Such measures shall include, but not be limited to: barricades, signs, newspaper announcements, traffic control by police, or other advisory and control methods deemed appropriate.

7.2 The Contractor shall provide his work force with all tools and equipment in sufficient numbers and quality to perform all aspects of the works in a safe manner. The Contractor shall provide protective headgear for all members of his workforce, and shall provide

protective clothing as required for specific tasks. The Contractor shall instruct his work force in proper and safe construction techniques and shall continuously monitor compliance with safety instructions throughout the period of the Contract.

7.3 The Contractor shall provide, and require use of, protective grounding equipment when:

a) Work is being performed on lines adjacent, either in extension of, or parallel to, energized circuits.

b) Work is being performed on isolated circuits after conductors have been installed.

7.4 The Contractor shall maintain all tools and equipment in good working order. All mechanized equipment shall have adequate safety mechanisms and guards in place and be fully operational. Operators of such equipment shall be skilled and fully trained in the operation of such equipment.

7.5 The Contractor shall provide and maintain emergency medical supplies to cover with accidents and snakebites for his work force on a readily available basis. The Contractor shall also instruct all supervisory personnel in the action to be taken in the event of serious injury, and the sources and locations of professional medical assistance which shall be employed in such cases.

7.6 The Contractor shall apply all accidental insurance policies to his work force for an accident occurring during the working period of the construction.

8. Tests

8.1 The Contractor shall furnish the electrical test equipment and personnel to perform electrical tests of equipment and circuits, as specified by, and under the supervision of the NEA.

8.2 The Contractor shall megger all circuits installed with a motor-driven megger or equivalent instrument to demonstrate the acceptable insulation characteristics of the line prior to energization and Provisional Acceptance.

8.3 The Contractor shall megger all transformers with a motor-driven megger prior to installation

8.4 All tests specified shall be conducted during suitable atmospheric conditions under the supervision and witness of the NEA. All test results shall be documented and signed by both parties.

9. Demolition

9.1 The Contractor shall perform the removal of all existing facilities, if any, in accordance with the specific directions of the Employer. All materials removed shall remain the

property of NEA and the Contractor shall deliver all salvaged materials to the NEA warehouse, or as specifically directed by the Employer.

9.2 All poles shall be removed by pulling the complete pole from the ground; poles shall not be cut off at the ground line. Holes shall be backfilled and compacted completely with sufficient added backfill piled above grade to prevent depressions being created by natural compaction. Backfill material shall be provided by the Contractor.

9.3 All conductor materials removed shall be returned to the NEA. Methods of conductor removal shall be specified by the NEA. If conductor is removed in the longest length practicable for future re-use, the said conductor shall be wound on empty conductor reels, with the reels marked with the conductor size and approximate length. Different conductor sizes shall not be mixed on any reel. If conductor is removed from structures and specified as scrap, conductors may be cut down in lengths and made up in rolls. Conductor sizes for scrapping may be mixed; different conductor metals shall be separated.

9.4 Care shall be taken in removing, handling, and transporting cutouts, and surge arresters to minimize porcelain damage.

9.5 Transformers removed from service shall be delivered to the NEA warehouse or as specifically directed by the Employer. Care shall be taken in removing, lifting, and transporting transformers.

9.6 Other structures shall be removed, such as concrete transformer pedestals in the most appropriate manner, as specified by the NEA. Existing stay rods may be cut 20 centimetres below finished ground level.

Cleanup

10.1 The Contractor shall ensure that all worksites shall be free of all manner of debris resulting from the construction activity.

10.2 All crating, ABC cable and conductor reels, packaging materials, conductor scraps, and other miscellaneous items are removed from the workplace. All holes resulting from removal of facilities shall be filled. If trees or bush have been cut or trimmed, all cuttings shall be removed. The worksites shall be left in clean natural conditions.

10.3 Site cleanup shall be an integral part of the Provisional Acceptance process, and no line section shall be provisionally accepted unless all clean-up work has been accomplished.

11. Tree Cutting and Trimming

11.1 Any tree cutting or tree trimming authorized and directed shall be accomplished by the Contractor under the direct supervision of NEA.

11.2 All cutting shall be removed by the Contractor with disposition of cutting as specified by NEA.

12. Interruptions to Existing Service

12.1 The Contractor shall arrange for interruptions of service to existing lines with NEA. Every effort shall be made to limit such interruptions to the minimum.

12.2 If it is possible to maintain service to a section of line by constructing temporary facilities approved by NEA, the Contractor shall detail man hours and classification of personnel required to construct such facilities and submit to NEA for approval prior to any work being performed. Payment for approved work shall be based on the rates covered in Construction Unit LR of Section VIII.

Section IX-C

CONSTRUCTION STANDARDS

CONSTRUCTION STANDARDS

1.0 GENERAL INSTRUCTIONS Error! Bookmark not defined.
A. General **16**
B. Pole numbering **16**
2.0 POLES, CROSSARMS, AND STAYS Error! Bookmark not defined.
A. Poles **17**
B. Pole setting **17**
C. Pole Framing **17**
D. Stays **18**
E. Stay Insulators **18**
F. Field Modifications **18**
3.0 CONDUCTOR Error! Bookmark not defined.
A. Materials **19**
B. Sagging **19**
C. Sag Charts **19**
D. Stringing **20**
E. Damaged Conductor **20**
F. Sag Error **20**
G. Conductor Attachment **21**
H. Line Splices For Tensioning And Looping **21**
I. Connectors **21**
4.0 CONDUCTOR ACCESSORIES Error! Bookmark not defined.
A. Pre-Formed Ties and Grips **22**
B. Preformed ties for Stay Wire **22**
C. Application **22**
5.0 LINE CONSTRUCTION Error! Bookmark not defined.
A. Arrangement of Conductor **23**
B. Attachments To Poles **23**
C. Conductor Ties **23**
D. Conductor Support **23**
E. Pole Wiring **23**
6.0 INSTALLATION OF STAYS Error! Bookmark not defined.
7.0 INSTALLATION CRITERIA Error! Bookmark not defined.

1.GENERAL INSTRUCTIONS

A. General

The general instructions included in this section shall be applied to all 11 kV and 400/230 volt overhead line construction under this NEA. Additional general instructions are included in each section as they are applied specifically to the subject covered in that section.

These construction standards provide basic requirements for new facilities.

The clearances of conductors and structures shall be as per the construction standard drawing no. CSG-01, CSG-02 and CSG-03.

Deviations from these standards may become necessary due to unique or special conditions. In such cases, the directions of the Employer shall be followed.

The safety rules of the NEA shall be strictly observed at all times by the Contractors' and NEA's work forces.

B. Pole numbering

Poles and structures shall be numbered in accordance with a numbering system provided by NEA. Each pole or structure shall be paint stencilled with the assigned number.

2. POLES, CROSSARMS, AND STAYS

A. Poles

Poles shall be installed by length and class at locations in accordance with the construction plan.

B. Pole setting

Pole holes shall be dug large enough in diameter to admit a tamping bar all around the periphery of the pole and shall have a uniform dimension as per the type of pole used at the top and bottom. Poles shall be planted in the ground to the depth specified in Table 2. Before planting a pole, the bottom of the hole made for planting the pole, shall be cleaned of free soil and firmly tamped, to prevent the hole from settling.

The stability of a pole, particularly a pole without stay, is greatly influenced by the size of the pole hole, the nature of the soil and the care exercised in back filling and tamping. Two active hand tampers and one slow shoveler shall result in good compaction.

Poles shall be set to stand perpendicular except at terminals, angles and other points of excessive strain where they shall be given a rake not to exceed 10 centimetres against the direction of strain. Poles located at the sides of banks or other locations, where washouts may occur, shall be protected by suitable cribbing, or shall be referred to the Engineer for recommended action.

After the pole is in position and the hole is back filled and tamped, soil shall be piled and packed firmly around the pole. Pole setting shall be inspected prior to acceptance and any back fills that have sunk shall be refilled.

Poles located in shallow river beds shall be protected by gabions as designated by the Employer. Gabions should be approximately 2 metres x 1 metre x metre. Four such gabions are required for each pole.

Set pole and pour 860 mm diameter foundation and level areas around pole and set gabions in pattern shown in CSG-06**.** It is important to lace adjacent gabions together along the perimeter of all contact surfaces. Fill gabions with hard, durable, clean stone, 100 mm to 200 mm in size in three layers. Install two connecting wires at each layer. Lace gabion lids securely and make certain that all edges are closed. Fill void between pole and gabion with hard, durable, clean rock 200 mm minimum size.

C. Pole Framing

Pole and structures shall generally be framed in accordance with these standards and the construction structure data sheets. Where special framing requirements are necessary, the Employer shall provide framing instructions for the specific structure.

Each cross-arm shall be attached to the pole by a pole clamp or by machined bolts of sufficient length to pass completely through the holes provided on the pole and cross-arms and receive their full complement of nuts.

Bolts of proper length shall be used. Excess nuts shall not be used to make use of a bolt which would otherwise be too long. The end of a machined bolt NEAing more than 3 centimetres beyond the nut shall be cut off to a length of 2 centimetres beyond the nut. Each bolt, when installed, shall have its full complement of nuts.

D. Stays

Stay leads specified in construction documents are defined as the horizontal distance from the centre line of the pole at ground line to the point where the anchor rod should enter the ground assuming the ground to be level. For the correction in stay leads for uneven ground see Drawing No. CSG-11.

The Engineer, upon request, may designate the actual location of stay anchor rods on slope of hills. The stay stake indicates the point where the anchor rod enters the ground. The anchor hole shall be dug accordingly.

The attachment of one stay shall not overlap that of another stay when two or more stays are carried to a pole or anchor. Each shall be entirely independent of the other. This does not prevent the use of multiple eye rods for nuts designed for such use.

All stays to be installed on a pole line shall be placed and drawn reasonably tight before the conductors are tensioned. After the conductors are tensioned and sagged to their final position, the stays shall be carefully inspected to see that each is carrying its share of the load on the pole as intended. If multiple stays are not carrying equal strain, the slack stay shall be pulled up until it is sharing load as intended.

Stay anchors must be installed full depth and set to pull against undisturbed soil to develop full tension. An anchor not properly installed will move and allow movement of the top of the pole, thus slacking the conductors. Stay anchors installed in soft or unstable earth shall be placed at specified depth and back filled with 5 cm. maximum size crushed stone placed to a depth of 1 meter from the bottom of the pole.

E. Stay Insulators

Stay insulators shall be installed on all stays in accordance with the construction drawings.

F. Field Modifications

During the erection work at the field there may be necessity to modify galvanised steel hardware and may have to be drilled, reamed, filed or cut. Under such a condition the area of the steel exposed, after these modifications, shall be coated with a zinc-rich paint to protect the steel from corrosion.

3. CONDUCTOR

A. Materials

XLPE covered conductors refer to an assembly of strands of hard drawn aluminium alloy for greater strength which are termed as All Aluminium Alloy Conductor (AAAC) Conductor.

B. Sagging

Conductors shall be sagged in accordance with the sag chart specified by these specifications.

The importance of careful sagging of conductors cannot be over emphasised. Conductors have definite characteristic that control their behaviour resulting from changes of temperature, wind speed and additional load due to ice or wet snow.

Conductors must not be sagged too tightly (less than specified sag) as unspecified extra tensions may result in failure of conductor structure.

Conductors sagged too loosely (more than specified sag) may contact adjacent conductors hardware or any structure. Excess sag can reduce clearance beneath the line with the ground to the point of danger.

C. Sag Charts

Unless otherwise noted, all sag charts are calculated on the basis of 35 kg/sqm wind pressure

Sag is always measured vertically, without wind, when conductors are being installed or re-sagged.

Unless otherwise specified by the Employer for a specific condition, initial or stringing sag shall be applied to the installation of all new unstressed conductor. The initial sag is always less than the final sag.

Sags for the various temperatures shall be furnished by the Engineer in a table form for spans not covered by the sag chart.

In order to ascertain the sag for a given stringing temperature, select the point corresponding to the proper temperature on the scale on the left-hand side of the sag chart. Lay a straight edge so that it passes through this point and the point of the centre scale representing the length of span to be sagged. The straight edge will then indicate the proper stringing sag on the right-hand scale. Interpolate if the temperature of span is not exactly the same as designated on the chart. The low voltage neutral conductor shall be sagged with the same sag as the low voltage phase conductor. If the low voltage conductor, as a group, has less design sag than the high voltage phase conductor installed above it, the low voltage conductor, as a group, shall be installed to the same sag as the high voltage conductors installed above.

D. Stringing

The dynamometers and similar apparatus shall be used for tensioning of conductor to obtain appropriate sagging of conductors.
For stringing of XLPE Covered (AAAC) Conductors of all sizes, stringing rollers or roller shall be used to support the conductor as it is pulled out and sagged. Stringing rollers shall be used regardless of size of aluminium conductors, bare or covered.

Stringing rollers shall be suspended at each insulator support position so that the conductor shall roll smoothly over the roller protecting conductor from any physical damage.

Stringing sheaves shall have a diameter at least 20 times the conductor diameter and so finished as to prevent damage of any kind to the conductor as it is pulled through the sheaves.

Conductor drum shall be located at a sufficient distance from the first structure to avoid excessive bending of the conductor over the sheaves and excessive downward loading on the cross-arms.

Attention shall be paid to the fact that all sag charts contained herein for AAAC conductors are calculated on the basis of non pre-stressed conductor. For this reason, at no time during the stringing or sagging operation, shall conductors of this type be pulled to sags which are less than those shown by the charts.

Special care shall be taken at all times to prevent the conductor from becoming kinked, twisted or abraded in any manner. Where it is necessary to drag conductors on the ground, the conductors shall be protected by covering all stones or other objects which might damage the conductor with boughs or trees or suitable pieces of lumber. These requirements are specially important when AAAC conductor is being handled on river crossing spans. Floats with rollers shall be used to prevent the conductor from dragging along the river bottom.

In stringing conductors across highways, the conductors shall be fully protected from passing vehicles by use of temporary guard structures.

E. Damaged Conductor

Damaged conductors shall be repaired by using a repair sleeve provided that no more than 2 strands of the outer aluminium layer are damaged and further provided that none of the sleeve core strands are damaged. For a conductor damaged in excess of the above conditions, the damaged section of the conductor shall be cut out and a tension splice installed.
When cutting out damaged section of conductor, no more than 1 tension splice shall be permitted in a span and no splice be made within 8 meters of an insulator attachment.

F. Sag Error

Sag error shall not exceed $\pm$ 40 mm from the sag defined by the sag chart.

G. Conductor Attachment

Conductors shall be secured to pin insulators with pre-formed conductor ties or with tie wire. Insulator ties, except at jumper supports in structures, shall be made with pre-formed ties when available.

Conductors shall be connected to dead end assemblies with tension set.

H. Line Splices For Tensioning And Looping

Cleaned and polished contact surfaces are necessary to make conductor splices so that it shall remain free from trouble. Great care shall be taken to completely clean the strands of aluminium conductor. The splicing sleeve must be centred over the conductor ends before compressing to make a splice of required strength.
The outer strands of aluminium shall be carefully cleaned with a wire brush to remove all foreign matter till the aluminium shines brightly. The cleaning applies to both new and old conductors. Splicing sleeves for aluminium conductor are supplied by the manufacturer pre-filled with inhibitor compound.

Splices in line conductors shall be so located that the end of the splicing sleeve is at least 30 cm from the end of a suspension or dead end clamp. Non-tension loops, such as between dead ends, shall be spliced with a connector when the conductor are of same metal and size.

I. Connectors

1. Cleaned and polished contact surfaces are necessary to make electrical connections that will be free from trouble.

2. Tap connectors are supplied by manufacturers pre-filled with inhibitor compound. Excess inhibitor compound shall not to be removed but it shall be wiped over the connector as a moisture seal. Connectors shall not be covered or taped.

3. Compression connectors shall be located in such a manner that there shall be at least 30 cm of conductor between the end of the connector and the end of a dead end

4. Connectors shall be installed on non-tensioned portion of the conductor such as loops in preference to the conductor in the span.

5. Connectors installed on conductor shall be located in a span adjacent to the crossing rather than the crossing span when practicable.

6. Aluminium compression connectors, pre-filled with inhibitor compound, shall be compressed on the cleaned area of aluminium conductor. Where necessary, inhibitor compound shall be applied to the cleaned conductor and connector before assembly.

7. Aluminium compression connectors shall be used for connecting aluminium to aluminium conductors.

4. CONDUCTOR ACCESSORIES

A. Pre-Formed Ties and Grips

Taps for jumpers and services shall not be made over the legs of ties or dead end grips.

B. Preformed ties for Stay Wire

Preformed ties for stay wire are furnished as per material list CSG–29, 30.

Preformed ties for stay wire are right hand lay. Preformed ties for stay wire may be removed and replaced up to 3 times, when initially installed, to permit adjustment of stay tension.

C. Application

When applying ties or grips the manufacturer's identification tag and colour coding shall be checked to insure that the tie or grip is the right unit specified for application on the specific conductor or wire strand.

Preformed ties for stay wire are furnished with two crossover markings. When applying preformed ties on hardware, the grip shall be installed using the crossover point closest to the loop of the grip.

5. LINE CONSTRUCTION

A. Arrangement of Conductor

The standard position of 11 kV phase conductors on the cross-arm in the normal triangular configuration looking from the normal source of power supply shall be seen as:

Red (R) on top of the pole, Yellow (Y) on right hand end of the cross-arm and Blue (B) on left hand end of the cross arm.

B. Attachments To Poles

Bolt holes are provided on poles for cross-arms, cross-arm braces and stay bolts.

C. Conductor Ties

Pre-formed ties and grips shall be used for attaching conductors to structures when available.

If pre-formed materials are not available, the wire shall be soft conductor so that when made up, the tie wire will bind the conductor tightly. No tie wire shall be used for a second time.

Jumpers on structures shall always be made with tie wire as per Drawing No. CSG-29

Tie wire shall be of the same metal as that of the bare conductor to which the tie is applied.

D. Conductor Support

The conductor supports on straight lines shall be carried on the top wire groove of the pin insulator. Conductors shall be attached to the side conductor groove of pin insulator on the outside of angles so that transverse conductor tension will tend to hold the conductor in the insulator groove.

Conductor ties shall not hold a conductor on the insulator when uplift exists. If uplift is found, it is required to consult with the Employer to determine remedial action to be taken.

E. Pole Wiring

All taps or connections passing from one level to another on the pole shall, as far as possible, be vertical. Connections shall have sufficient length so that the line conductors are not moved from normal positions and normal movement is not restricted. Connections shall have at least 30 centimetres clearance from other conductors. Any connection carried from one side of the pole to the other side shall be supported on pin insulators.

6. INSTALLATION OF STAYS

1. Where stays are installed on a line angle structure, line of stay shall bisect the outside line angle.

2. The span of stay extending between poles shall not be greater than 50 meter.

3. Anchor and anchor rods shall be set so that the axis of the rod and line of stay shall be straight. The portion of the anchor rod above the ground shall not be bent at an angle to connect a stay wire. If this occurs, anchor and anchor rod shall be reset. The anchor rod shall not be exposed for more than 15 centimetres above the ground after the anchor is set.

4. If gravel back fill is required to set anchor in soft or unstable soil, as per Drawing No. CSG-07, gravel back fill shall be designated as "Local Material".

5. If a stay is installed on a pole where low volt conductor is dead ended or double dead ended and extends past stay, a piece of plastic hose slit along the length shall be placed over the stay wire extending from the upper stay attachment to 200 mm below lowest low voltage conductor. After installation, the hose shall be wrapped with plastic tape and the hose shall be secured to the upper stay bolt with tie wire. Plastic hose shall be "Local Material".

6. The successful Bidder shall make preliminary survey of the work site to finalize the type of poles being used. The size / type and quantity of pole clamps may subject to variations as per fiend requirements.

7. INSTALLATION CRITERIA

GENERAL INSTRUCTION

1. The line alignment should be as straight as possible to minimise requirements for stays.

2. The basic span shall be maintained within the following limits:-

   a) For 11 kV: 50 m to 70 m
   b) For 400 V and 230 V: 40 m to 55 m

3. The entire construction works shall be performed as per the construction units specified. Whenever the construction unit does not cover any specific activity, the Contractor and the NEA shall mutually settle the cost as per the man-hour involvement for the same and according to the labour rate quoted by the Contractor in his Bid.

4. Detailed schedules of material to be used are provided in each structure drawing of the construction standards. It shall be the responsibility of the Contractor to judge the appropriateness of the listed material according to the site conditions. If there is any need for addition/reduction or deviation from the listed material size/quantity, the Contractor shall ask the NEA for the approval of the same.

5. All types of line clearances shall be maintained as per the construction standards provided to the Contractor. Deviations from the standards may be allowed only for unique or special conditions.

6. Safety rules of the NEA shall be strictly observed at all times by the NEA, Contractor and their personnel. Special care shall be taken to maintain the optimum conductor sag to provide adequate safety to the construction and the property or people.

7. All fastenings (e.g. preformed ties, nut bolts, stays etc.) shall be so installed that the constructed line components shall not fail to remain within the safety margin while maximum working load is applied.

8. If the Contractor requires clarification of any construction standard or unit or he feels any doubt in his interpretation of construction activities he should clarify the points with the NEA in writing and the decision thus made shall be valid for further work.

9. Stays:- The Contractor, in general case, shall install at least one stay for the supports in the following cases:

   1. Dead end structure
   2. Tee-off (Tap) structure

Section IX-D

SPECIAL REQUIREMENTS FOR EXECUTION OF WORKS

SECTION IX-D

SPECIAL REQUIREMENTS FOR EXECUTION OF WORKS

TABLE OF CONTENTS

1.	**Site Office Management**	Error! Bookmark not defined.
2.	**Contractor's key personnel and workforce**	**28**
3.	**Tools and Equipment**	**28**
4.	**Approval of Drawings**	**29**
5.	**Extra Work**	**29**
6.	**Materials**	Error! Bookmark not defined.
7.	**Local Materials**	**31**
8.	**Construction Time Schedule**	Error! Bookmark not defined.
9.	**Measurement of work and material**	**31**
10.	**Workmanship and quality of work**	Error! Bookmark not defined.
11.	**Commissioning of work**	**32**

1. Site Office Management

1.1 The contractor and / or sub contractors as proposed by the bidder as per GCC shall establish and maintain throughout the period of the performance of the contract a site office to serve as a base for all the operations necessary to perform the works and shall maintain adequate store facilities for storing materials and equipment issued by the employer. In case the above-mentioned facilities and establishments are not found satisfactory during the site verification, the employer shall have right to instruct the contractor for rectification of the same.

1.2 Prior to the beginning of construction works the contractor at his own cost shall establish a demonstration and training installation of 11/0.4 kV structures as listed in construction standards of tender document. The installation shall include at least 3 spans of AAAC conductor and ABC cable of each size to illustrate the type of materials used for tangent, angle and dead end construction for 11/0.4 kV line. Such structures need not be spaced more than 10 meters apart. The intent of establishing such arrangement shall be to provide visible examples of the application of the various materials to be used and to provide training and testing facility for the contractor's line construction personnel.

2. Contractor's key personnel and workforce

2.1 The contractor shall have experienced and qualified administrative, accounting and store keeping staffs capable to undertake respective jobs. An office manager with adequate qualification and experience to run such establishment efficiently must head the site office. The contractor shall employ only experienced, competent and skilled office staff as required in the tender document.

2.2 The line construction and supervisory staff of the contractor shall be examined by the employer to ensure their capability to perform proper quality of work as per Evaluation Criteria (Section 3) clause no. 2.5 before commencement of the work.

2.3 The site and field staff as approved by the employer shall be made available for the entire construction period of the NEA. All the staff and workforce of the contractor shall be issued identity cards jointly certified by the contractor and the employer. Replacement of any such staff or site personnel must not be made without prior permission of the employer.

2.4 The contractor is required to pay salary and wages of his staff and workforce at an interval not exceeding a month. The rate of wages payable to the labours shall not be less than as prescribed by the labour law of Nepal.

3. Tools and Equipment

3.1 The Contractor shall have owned, leased or hired tools and equipment for successful execution of the work. Prior to beginning of the work the contractor shall show these items in his possession. In case of the heavy tools equipment and vehicles the

contractor is required to submit the source of these items with credible documents such as contract papers conforming their availability at the time of the execution of the works.

3.2 The employer shall examine to verify the availability of all such tools and equipment before commencement of the work. The contractor shall be allowed to start his work only after verification of such tools and equipment in satisfaction of the employer. No tools and equipment shall be provided by employer.

The contractor shall have following tools and equipment for the execution of the contract:

S.N.	Description of Tools and Equipment	Unit	Quantity
3	Max or Rachet Puller suitable for HV/LV Cable Tensioning	Nos.	3
4	Come along Clamp suitable for HV/LV Cable Tensioning	No.	3
5	Crimping Device for jointing Cables	Nos.	2

4. Approval of Drawings

4.1 The contractor shall update and revise all plan and profile drawings provided to him by the employer after performing check survey of each of the segment of the scheme.

4.2 The contractor must get approval from the employer in writing before he starts execution of construction of any of the segment of work. If the contractor executes any work without the employer's prior approval, he may be asked to revise the same without paying any compensation to him.

5. Extra Work

5.1 Extra work and goods supply shall be performed in accordance with written directives as issued by the NEA to the Contractor.

5.2 Extra work or goods supply for which there are applicable unit prices will be paid for at such unit prices.

5.3 Where there are no applicable contract unit prices, the price to be paid by the NEA to the Contractor for extra works / goods supply shall be fixed through negotiation between Employer and the Contractor based on:

- the GoN norms and respective district rate approved by the District Rate Fixation Committee in case of extra works to be performed
- the prevailing market rate of the goods, in case of extra goods to be supplied.

In no case, such price shall exceed NEA's cost estimates for the item.

5.4 Nothing in this Clause shall excuse the Contractor from proceeding with the extra work as directed in writing by the NEA.

5.5 Any variation in the quantities of unit price construction units, within the ranges stated in the Special Conditions of Contract, Clause 1.3, from nominal bid quantities of such unit price construction units shall not be construed as Extra Work.

6. Materials

6.1 All the construction materials for installation of the Works shall be provided by the Contractor except ABC cable and conductor.

6.2 All materials and equipment of the NEA shall be located at the NEA's or such other areas where they are being stored. During issue and handling over of these materials it shall be the Contractor's responsibility to load all of them and provide all necessary lifting and handling equipment, labour and suitable transport as required to transport the various items of materials and equipment to the Contractor's site of storage and operations.

6.3 The listing of materials shall show the limiting allowance for breakage and scrap and material unit prices, which may be applied to the contractor's accountability to the NEA for all materials and equipment issued by the NEA. Allowances for such materials shall be as under:

- ABC Cables 0.5 %

6.4 Accountability for all materials and equipment issued by the NEA shall be based on the material lists associated with the various construction drawings contained in the Construction Standards and the allowances referenced in clause 3 above. At the time of final material accounting, any deficit in the Contractor's material account shall be charged to the Contractor at the unit price rates enlisted by the NEA during handing over of the materials to the Contractor.

6.5 If the Contractor fails to account for all materials and equipment issued by the NEA as set forth in clause 4 above, the Contractor shall be charged for the missing materials or equipment. The NEA shall have the right to withhold money due or to become due to the Contractor, as reimbursement for the deficit in the Contractor's material.

6.6 Prior to the rehabilitation work, representative of the NEA's local branch office the Site Engineer and the contractor shall jointly inspect the materials to be dismantled and list down such materials. It shall be the contractor's responsibility to pack those goods appropriately, transport them to the nearest NEA store and get receipt. Such receipts shall be enclosed with the subsequent invoices claimed by the contractor.

7. Local Materials

7.1 Certain minor items of materials, including civil materials, required by the Construction Standards are designated Local Materials in the Standards and shall be furnished and installed by the Contractor as part of the completed unit of construction.

7.2 The contractor shall include the cost of such items of materials in his quoted construction unit prices and no other payments for such materials shall be made to the contractor.

7.3 The NEA, may, at it option, require the NEA's approval of any or all Local Materials prior to procurement of such items by the Contractor.

7.4 It shall be the Contractor's responsibility to determine his requirements for any items of Local Material in a timely manner and make procurement accordingly. No delays shall be allowed, and no exceptions made to the required use of Local Materials due to the unavailability of such materials.

8. Construction Time Schedule

8.1 Before the commencement of construction works the contractor shall be required to submit a detail construction time schedule showing details of each event of construction of different components of works so as to complete the whole work within the time frame as per the requirement of the contract. The contractor's proposal shall be examined by the employer to ensure his ability to perform the work in time and approval shall be given with any modification, if necessary, in satisfaction of the employer.

8.2 If the contractor fails to execute the any component of work within the period specified in the construction schedule, the employer shall have right to warn the contractor to make up for such delay in time. In case the contractor fails to overcome delay in different components of the works instead of repeated reminders by the employer, he shall be made fully responsible for any delay in final time schedule and no consideration shall be made for any extension of construction period for the whole work.

9. Measurement of work and material

9.1 The contractor after completion of work of any segment of work as per approved drawing of the NEA shall submit detail work measurement in structure data sheet (SDS) as per the format Sheet-1 in this section of the tender document.

9.2 Measurement of the work performed by the contractor shall be jointly checked by the contractor and the staff deputed by the employer. In case of any discrepancy or dissatisfaction of employer staff the contractor shall be notified for making corrections for the same and the contractor shall have to submit his revised measurement schedule.

9.3 The contractor shall be issued materials based upon the requirements to perform his work conveniently. The contractor is required to submit detail of materials measurement in material data sheet (MDS) for each of the segment as per the prescribed format Sheet-3 in this section of the tender document. The contractor shall assess quantity of each and every item of materials from the material data sheet. Small items such as binding wire, nails, binding tape etc. could be assessed on flat basis.

9.4 While submitting running bill the contractor must submit details of quantity of materials issued to him, quantity consumed as assessed from the material measurement sheet and quantity in his possession. Materials issued, used and in contractor's possession must be reconciled as per the prescribed format Sheet-3 in this section of the tender document. The materials in possession of the contractor shall be the opening material balance for the next running bill. The contractor shall also submit copies of store vouchers showing details of materials issued to him. Statement of materials submitted shall be checked and certified by the employer before payment of each of the running bill.

10. Workmanship and quality of work

10.1 The contractor shall be attentive to maintain workmanship and quality of work while performing the work and shall obey to all the instructions of the field staff of the NEA time to time in this regard.

10.2 Special items such as concrete works, cable jointing works and transformer installation works etc. must be performed in presence of the NEA field staff. In case of the concrete works the NEA staff shall assess quantity of cement and steel to be used for each of the job and this must be followed for performing the job. Sand and aggregate must be supplied as per the standard specification of the tender document. The NEA field staff shall check quality of such materials and the contractor shall use the same after his approval. Curing of concrete works must be carried as per standard practice. The field staff shall have right to ask the contractor to repeat concrete works in case of his failure to execute the job as above or in his absence.

10.3 Each and every item of the standard data sheet (SDS) shall also be checked by the NEA staff for the satisfaction of quality of workmanship as per the prescribed specification of the tender document. In case of failure of the contractor to execute any item of the work as per proper workmanship or quality, the NEA shall have right to ask the contractor to revise or remedy such work at the cost of the contractor.

11. Commissioning of work

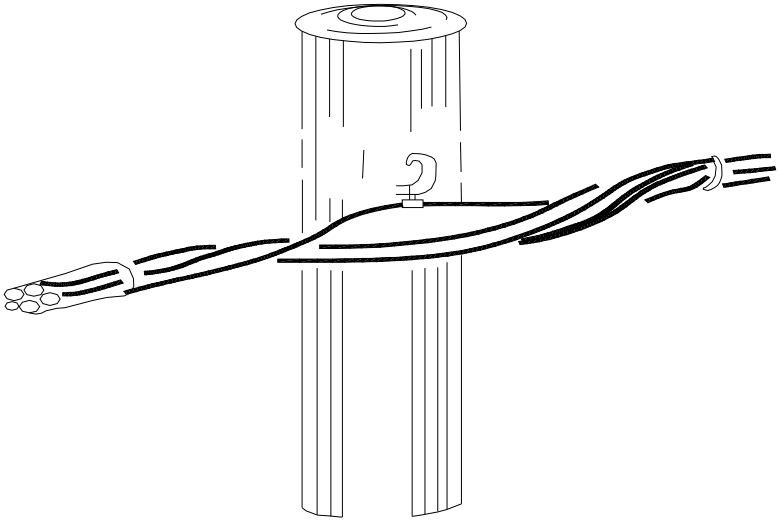
11.1 After completion of entire work of any village or load centre, the NEA after necessary tests shall arrange to electrically charge the same. In case of successful operation in satisfaction to the NEA the contractor shall be issued a provisional certificate starting from the date of such commissioning.

11.2 The NEA shall be authorized to change such date of commissioning in case of failure of the line due to any defect in the quality of construction.

11.3 Final acceptance of work shall be issued only after completion and satisfactory commissioning of whole work of the contract.

Section IX-E

DRAWINGS AND MATERIAL LISTS

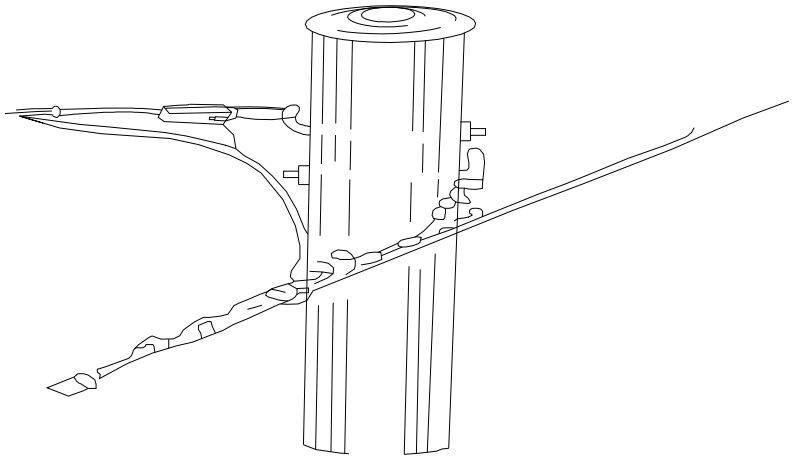


ANNEX L TYPICAL DRAWING	SUSPENSION ASSEMBLY TYPE "A 1"	NEPAL ELECTRICITY AUTHORITY

Pole

S.NO.	QTY.	UNIT	MATERIAL
1	1	NOS	SUSPENSION CLAMP
2	1 for STP 0 for PSC	NOS	POLE CLAMP WITH NUTS, BOLTS AND WASHERS (TC8)
3	1 for PSC 0 for STP	NOS	PIGTAIL WITH HEXAGONAL NUTS AND WASHERS (16 X 203) MM
4	1	NOS	POLE 8 METER

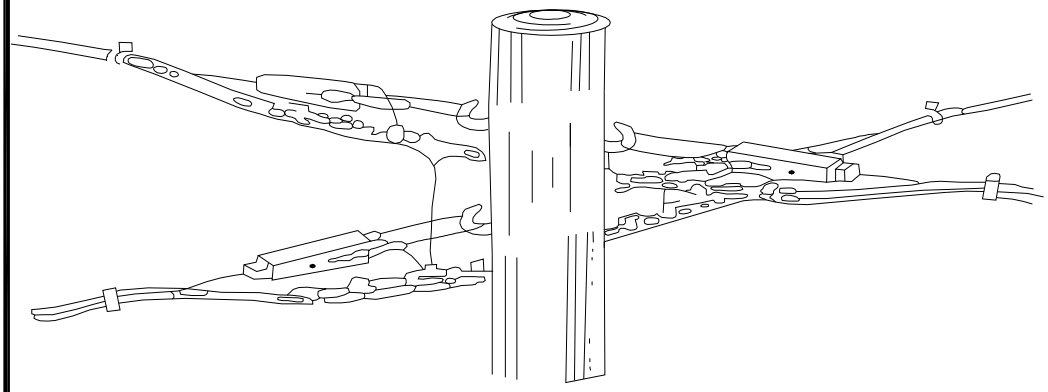
CONSTRUCTION STANDARDS LV TYPE – A1 (Suspension Type)	**NEPAL ELECTRICITY AUTHORITY**



ANNEX L TYPICAL DRAWING	INTERMIDIATE TAP TYPE "B"	NEPAL ELECTRICITY AUTHORITY

S.NO.	QTY.	UNIT	MATERIAL
1	1	NOS	SUSPENSION CLAMP
2	1	NOS	ANCHOR CLAMP
3	2 for PSC 0 for STP	NOS	PIGTAIL WITH HEXAGONAL NUTS AND WASHERS (16 X 203) MM
4	1 for PSC 0 for STP	NOS	EYE NUT
5	2 for STP 0 for PSC	NOS	POLE CLAMP WITH NUTS, BOLTS AND WASHERS (TC8)
6	5	NOS	INSULATED PIERCING CONNECTOR
7	5	NOS	INSULATED CABLE CAPS
8	1	NOS	POLE 8 METER
9	1	SET	LT STAY

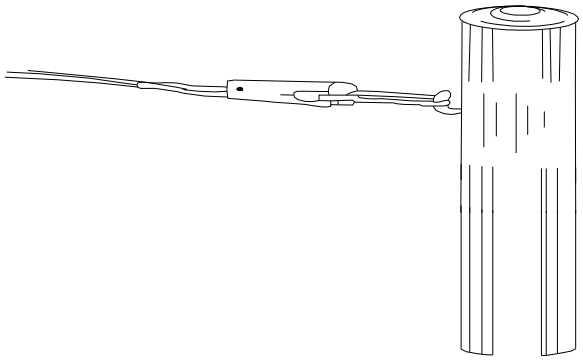
CONSTRUCTION STANDARDS **LV TYPE - B (Suspension with an Anchor for Dead)**	**NEPAL ELECTRICITY AUTHORITY**



ANNEX L TYPICAL DRAWING	DOUBLE DEAD END WITH TAPS	NEPAL ELECTRICITY AUTHORITY

S.NO.	QTY.	UNIT	MATERIAL
1	4	NOS	ANCHOR CLAMP
2	2 for PSC 0 for STP	NOS	PIGTAIL WITH HEXAGONAL NUTS AND WASHERS (16 X 203) MM
3	1 for PSC 0 for STP	NOS	EYE NUT
4	2 for STP 0 for PSC	NOS	POLE CLAMP WITH NUTS, BOLTS AND WASHERS (TC8)
5	15	NOS	INSULATED PIERCING CONNECTOR
6	20	NOS	INSULATED CABLE CAPS
7	1	NOS	POLE 8 METER

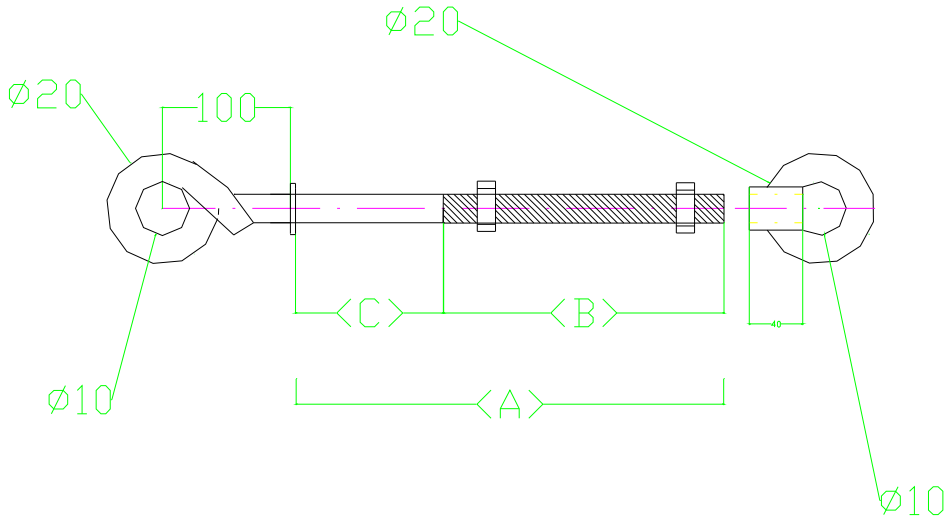
CONSTRUCTION STANDARDS **LV TYPE - C (Four Anchor Dead End)**	**NEPAL ELECTRICITY AUTHORITY**



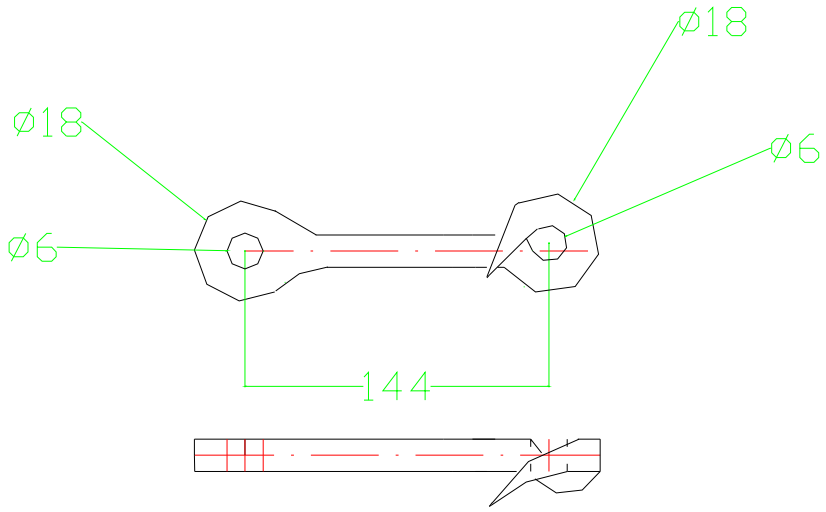
ANNEX L TYPICAL DRAWING	DEAD END ASSEMBLY	NEPAL ELECTRICITY AUTHORITY

S.No.	QTY.	UNIT	MATERIAL
1	1	NOS	ANCHOR CLAMP
2	1 for PSC 0 for STP	NOS	PIGTAIL WITH HEXAGONAL NUTS AND WASHERS (16 X 203) MM
3	1 for PSC 0 for STP	NOS	EYE NUT
4	2 for STP 0 for PSC	NOS	POLE CLAMP WITH NUTS, BOLTS AND WASHERS (TC8)
5	5	NOS	INSULATED CABLE CAPS
6	1	NOS	POLE 8 METER
7	1	SET	LT STAY

CONSTRUCTION STANDARDS **LV TYPE - E (Single Anchor Dead End)**	**NEPAL ELECTRICITY AUTHORITY**

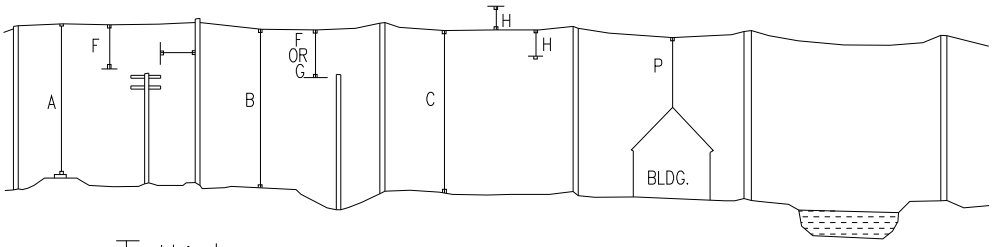


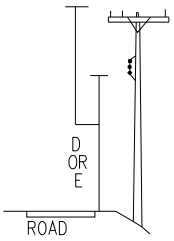
Particular	A , mm	B , mm	C , mm
Pig Tail A1	300	150	150
Pig Tail A2	200	120	80



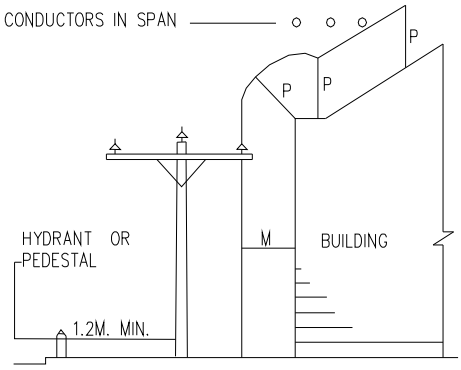
CSLV-16	CONSTRUCTION STANDARDS Pig Tail with Adjustable Eye and Double Eye Fitting	NEPAL ELECTRICITY AUTHORITY DISTRIBUTION AND RURAL ELECTRIFICATION PROJECT

CONDUCTOR CLEARANCE





POLES ADJACENT TO ROADS



MINIMMUM CLEARANCE FROM BUILDINGS

	CROSSING OVER	VOLTAGE OF CIRCUIT CROSSING	METER
A	RAILROAD OR TURNPIKE	STAY & CABLE MESSENGER	7.10
		0 – 650 V.	7.10
		651 – 33,000 V.	7.60
B	ROAD, STREET, HIGHWAY OR LIMITED ACCESS HIGHWAY –	STAY & CABLE MESSENGER	5.80
		0 – 650 V.	5.80
		651 – 33,000 V.	6.10
C	AREAS ACCESSIBLE TO PEDESTRIANS ONLY	STAY & CABLE MESSENGER	4.60
		0 – 650 V.	4.60
		651 – 33,000	5.50
	LINE ALONG SIDE OF		
D	MAIN HIGHWAYS STREETS OR ALLEYS	STAY & CABLE MESSENGER	5.50
		0 – 650 V.	5.50
		6581 – 33,000 V.	6.10
E	RURAL ROADS NO VEHICLE CROSSING UNDER	STAY & CABLE MESSENGER	4.60
		0 – 650 V.	4.60
		651 – 33,000 V.	6.00

LOCATIONB	VOLTAGE	CLEARANCE (METER)
M	0 – 11.000 V.	1.20
	11.000 – 33.000 V.	1.83
P	0 – 11.000 V.	2.44
	11.000 – 33.000 V.	3.65

CLEARANCE M ALSO SPECIFIED HORIZONTAL CLEARANCE FROM BALCONIES.

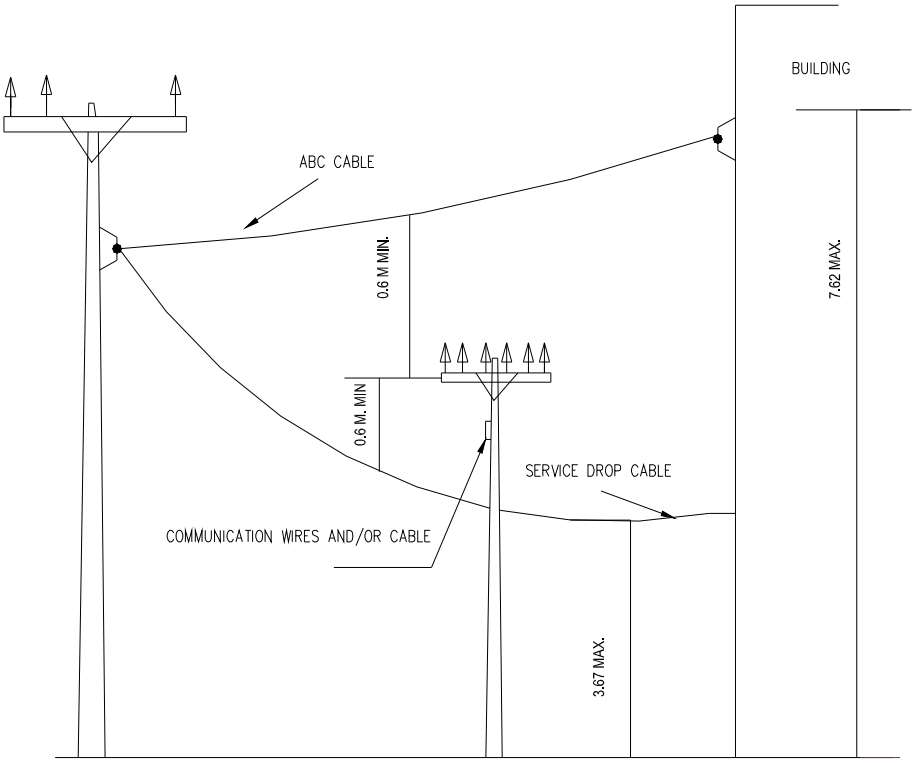
CSG–01	CONSTRUCTION STANDARDS CONDUCTOR CLEARANCE	NEPAL ELECTRICITY AUTHORITY

CONDUCTORS AT HIGHER LEVEL / CONDUCTORS AT LOWER LEVEL		SERVICE DROP 0 – 650 V	OPEN SUPPLY WIRES			STAYS AND SUPPLY CABLES ON GROUNDED MESSENGER
			0 – 650V	651 – 11000 V	33000 V	
F	COMMUNICATION WIRES	0.60 M.	1.38	2.15	—	0.60
	COMMUNICATION CABLES AND MESSENGER	0.6 M. OVER 1.2 M. UNDER				
G	SUPPLY CABLES ON EFFECTIVE GROUNDED MESSENGER	0.6 M. OVER 1.2 M. UNDER	0.60	0.60	—	0.60
H	OPEN SUPPLY 0 – 650 V.	—	1.30	1.80	2.70	0.60
	WIRES 651 – 11,000 V.	—	—	1.20	—	1.20
GUYS SERVICE DROPS 0 – 650 V.		0.60	0.60	1.20	—	—

— VOLTAGE SHOWN ARE PHASE TO GROUND VALUES.

CSG-02	CONSTRUCTION STANDARDS CONDUCTOR CLEARANCE	NEPAL ELECTRICITY AUTHORITY

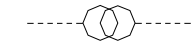
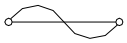
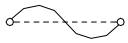
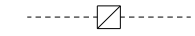
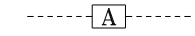
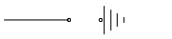
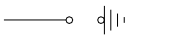
CONDUCTOR CLEARANCE



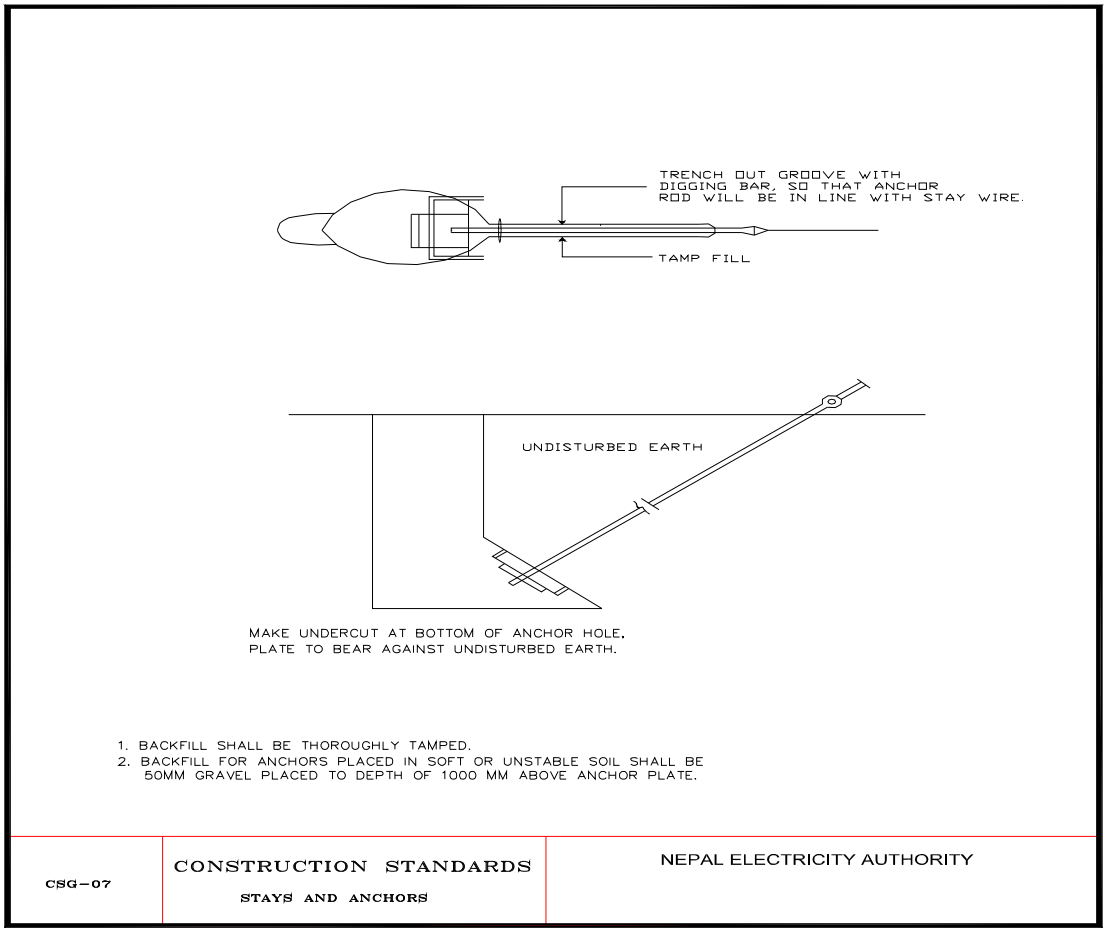
SERVICE DROP: Install Service over communication facilities where practical and attached to pole when available; otherwise cross under communication facilities; with proper clearance.

SERVICE DROP (0-600 V) Crossing Over	CLEARANCE
DRIVE WAY TO RESIDENCE, GARAGE, OR OVER PARKING LOT EXCLUDING TRACKS IN URBAN AREA	3.67 M
DRIVE WAY AND COMMERCIAL PARKING LOT OR AREA SUBJECT TO TRUCK TRAFFIC	4.57 M

CSG-03	CONSTRUCTION STANDARDS CONDUCTOR CLEARANCE	NEPAL ELECTRICITY AUTHORITY

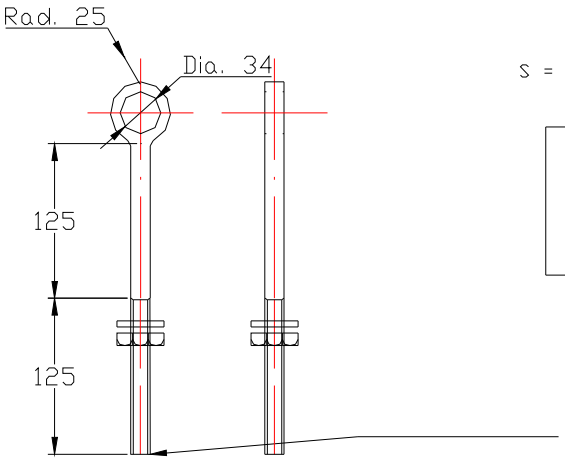
SN	ELECTRIC SYMBOLS	EXISTING	PROPOSED
1	Transformer		
2	Fuse Cutout		
3	Disconnecting Switch		
4	Load Break Switch		
5	Auto Reclosure		
6	Substation		
7	Lighting Arrester		
8	Pole Telescopic with Stay		
9	Pole P.S.C. with Stay		
10	Tapping Point		

CSG–04	CONSTRUCTION STANDARDS ELECTRICAL SYMBOLS	NEPAL ELECTRICITY AUTHORITY

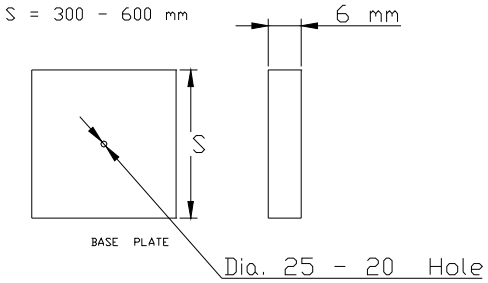


S.No.	MATERIAL (HT-STAY)	QTY.	UNIT	MATERIAL (LT-STAY)	QTY
1	HT STAY SET (600 x 600 MM PLATE AND ROD)	1	NOS	LT STAY SET (300 X 300 MM PLATE AND ROD)	1
2	HT TURN BUCKLE	1	NOS	LT TURN BUCKLE	1
3	HT THIMBLES	1	NOS	LT THIMBLES	1
4	POLE CLAMP(TC6)	1	NOS	POLE CLAMP(TC8)	0
5	HT STAY INSULATOR	1	NOS	STAY INSULATOR	1
6	PREFORM TIE FOR STAY WIRE 7/8 SWG	4	NOS	PREFORM TIE FOR STAY WIRE 7/12 SWG	4
7	7/8" SWG STAY WIRE	12	M	7/12" SWG STAY WIRE	10
8	HT EYE BOLT	0	NOS	LT EYE BOLT	0

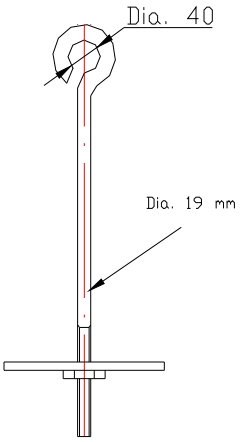
CONSTRUCTION STANDARDS HT AND LT - SINGLE STAY	**NEPAL ELECTRICITY AUTHORITY**



EYE - BOLT.

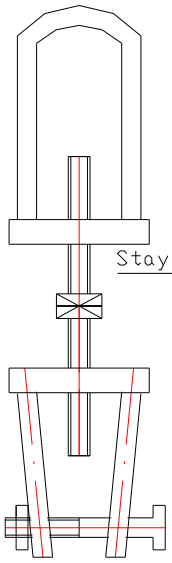


Dia. 16 mm

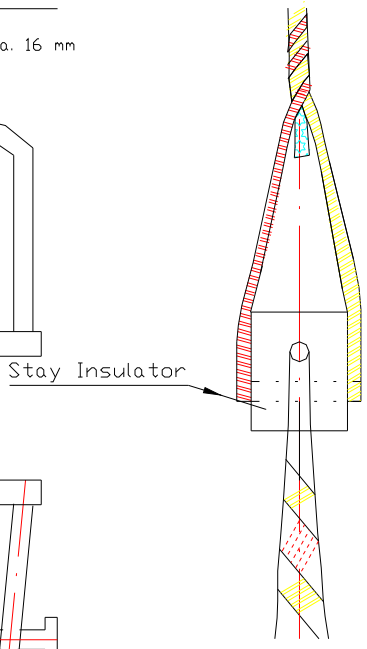


STAY ROD

S. N.	Description	Unit	HT Stay	LT Stay
1	Length of Stay Rod	mm	2440	1800
2	Diameter of Stay Rod	mm	19	16
3	Length of threaded portion	mm	300	



TURN BUCKLE



PREFORMED WIRE ASSEMBLY WITH STAY INSULATOR

CSG-17	CONSTRUCTION STANDARDS Hardware for Stay Set	NEPAL ELECTRICITY AUTHORITY

NOTES

A. PLOT APPROXIMATE GROUND LINE PROFILE UNDER PROPOSED SAY.

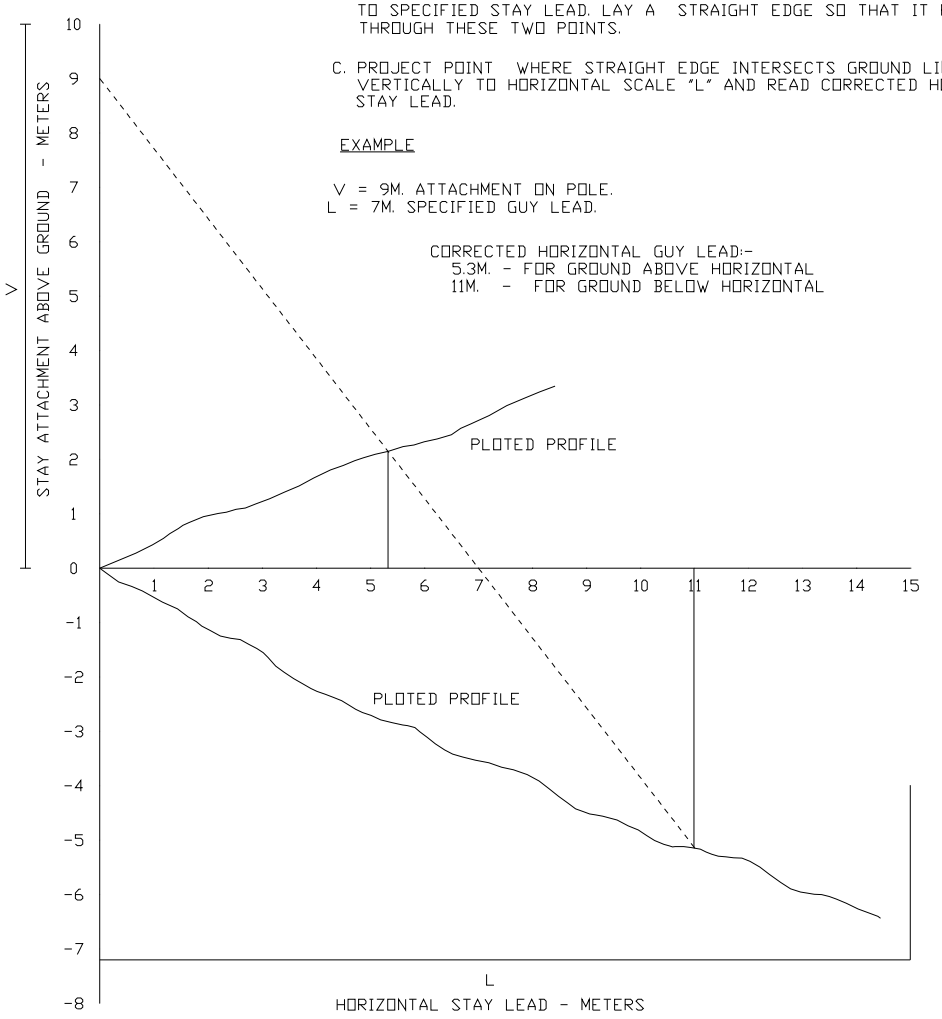
B. SELECT A POINT ON VERTICAL SCALE "V" CORESPONDING TO GUY ATTACHMENT ON POLE , SELECT A POINT ON HORIZONTAL SCALE "L" CORESPONDING TO SPECIFIED STAY LEAD. LAY A STRAIGHT EDGE SO THAT IT PASSES THROUGH THESE TWO POINTS.

C. PROJECT POINT WHERE STRAIGHT EDGE INTERSECTS GROUND LINE PROFILE VERTICALLY TO HORIZONTAL SCALE "L" AND READ CORRECTED HORIZONTAL STAY LEAD.

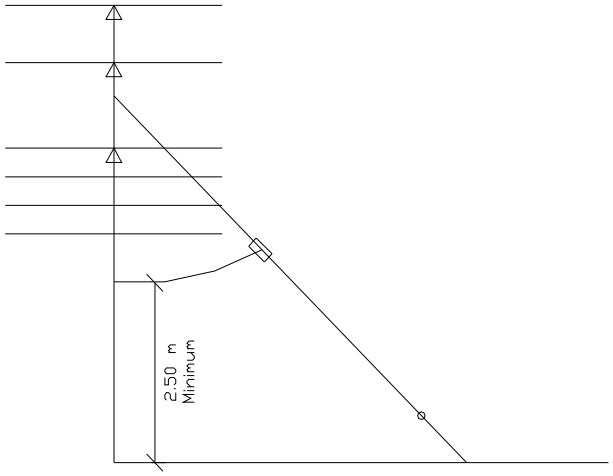
EXAMPLE

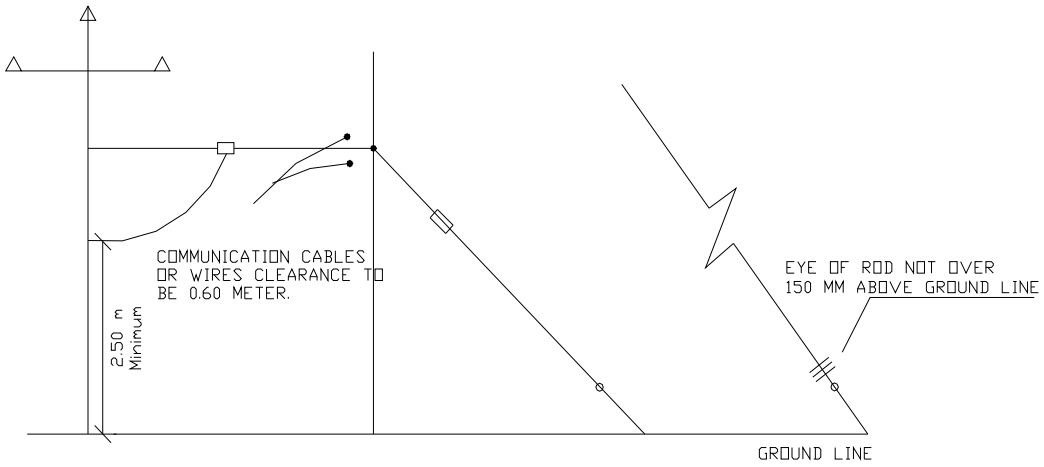
V = 9M. ATTACHMENT ON POLE.
L = 7M. SPECIFIED GUY LEAD.

CORRECTED HORIZONTAL GUY LEAD:-
5.3M. - FOR GROUND ABOVE HORIZONTAL
11M. - FOR GROUND BELOW HORIZONTAL

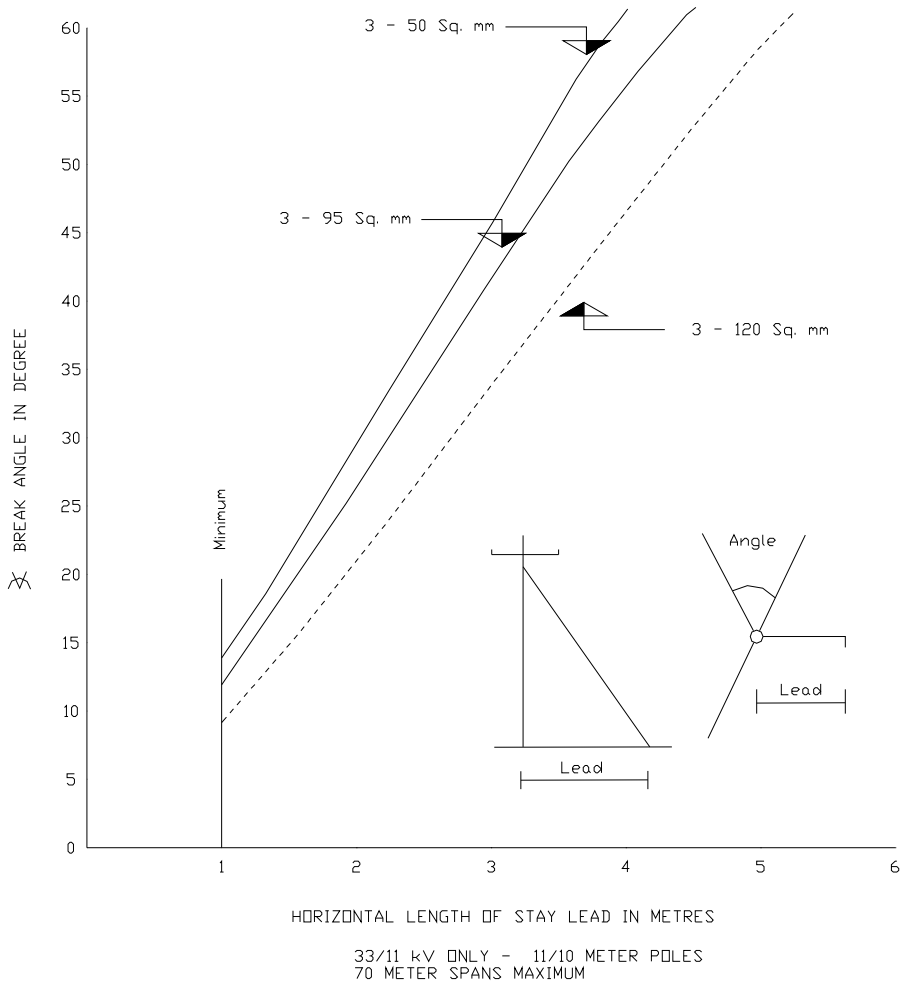


CSG-11	CONSTRUCTION STANDARDS STAYS AND ANCHORS	NEPAL ELECTRICITY AUTHORITY

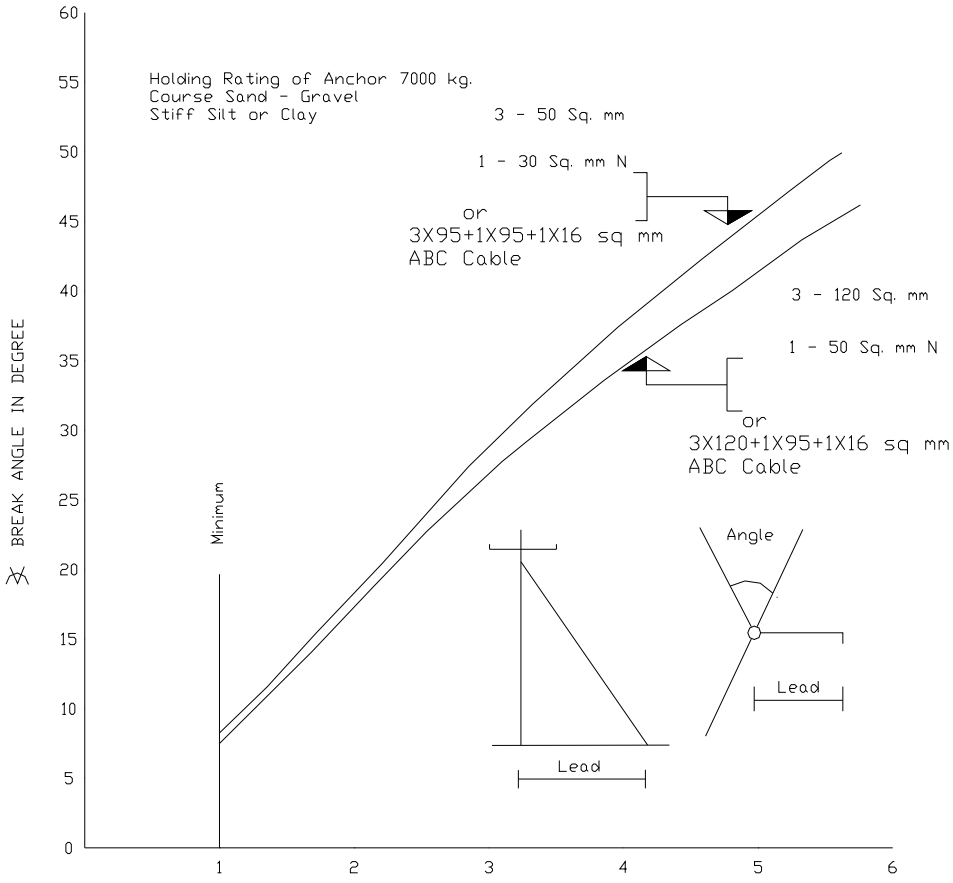




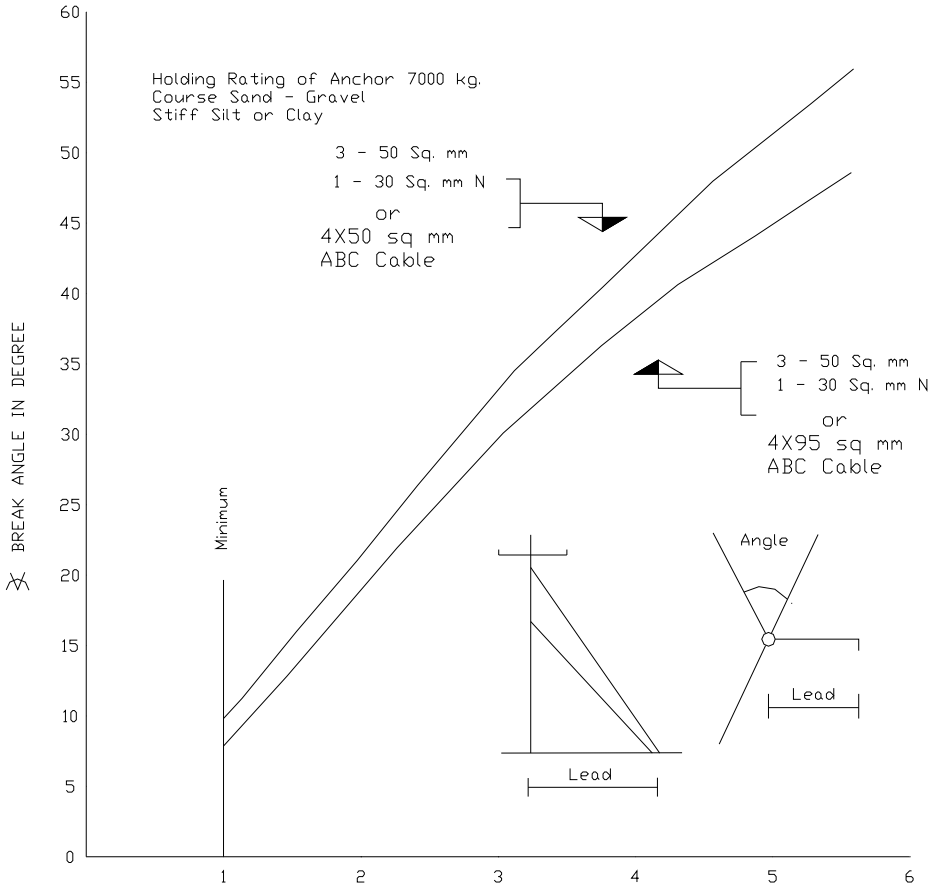
CSG-12	CONSTRUCTION STANDARDS STAYS AND ANCHORS	NEPAL ELECTRICITY AUTHORITY



CSG-13	CONSTRUCTION STANDARDS MINIMUM LEAD FOR SIDE ANGLE STAYS	NEPAL ELECTRICITY AUTHORITY

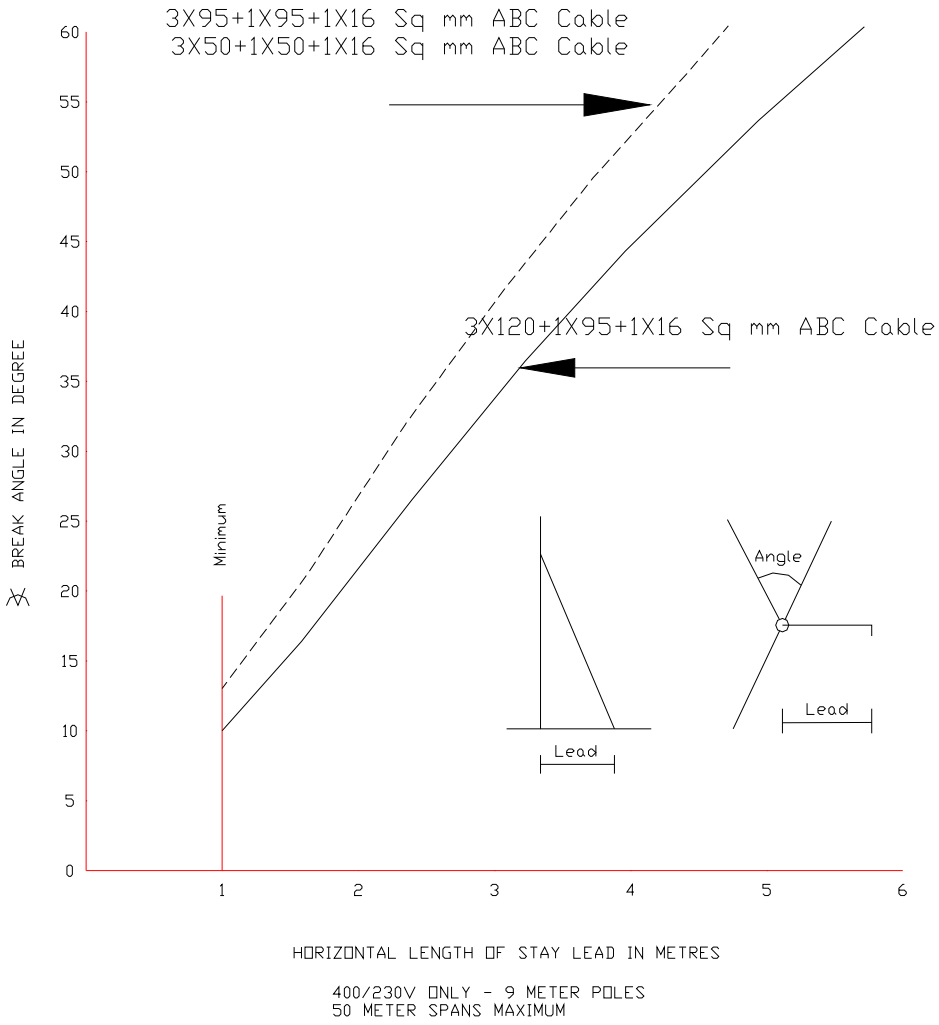


CSG-14	CONSTRUCTION STANDARDS MINIMUM LEAD FOR SIDE ANGLE STAYS	NEPAL ELECTRICITY AUTHORITY

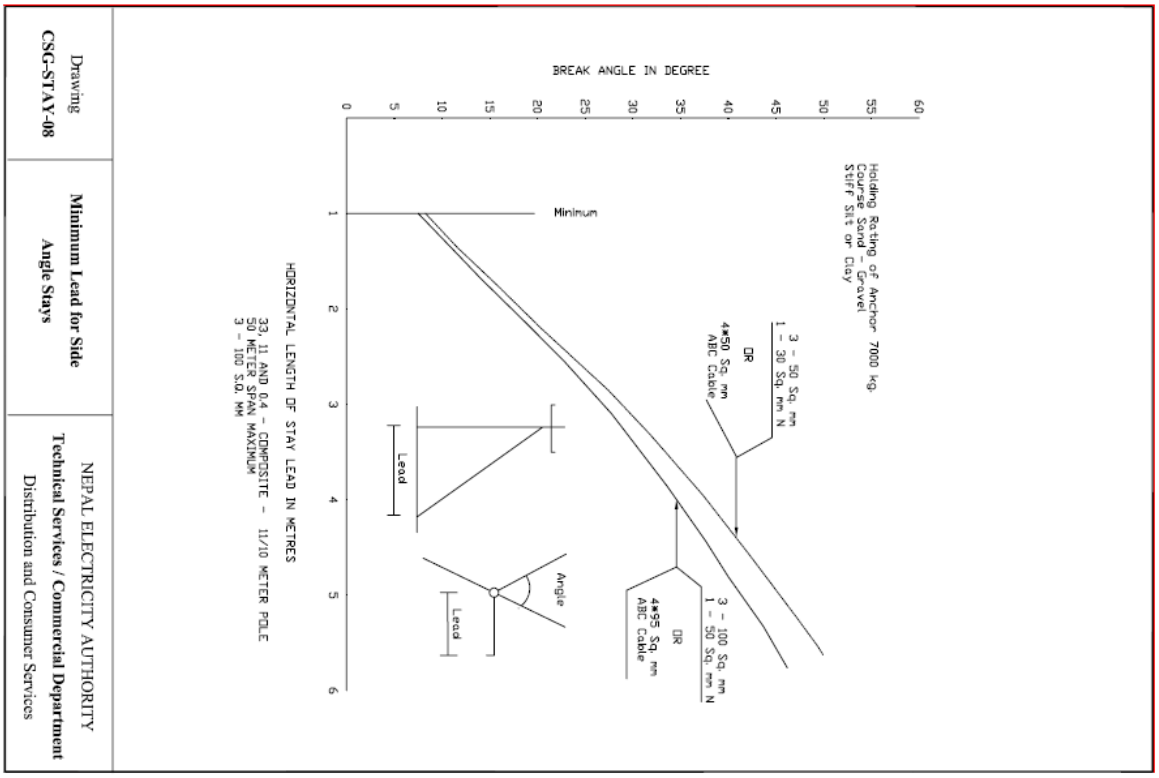


11 AND 0.4 kV -COMPOSITE - 11/10 METER POLE
50 METER SPAN MAXIMUM
3 - 50 S.Q. MM
1 - 30 S.Q. MM

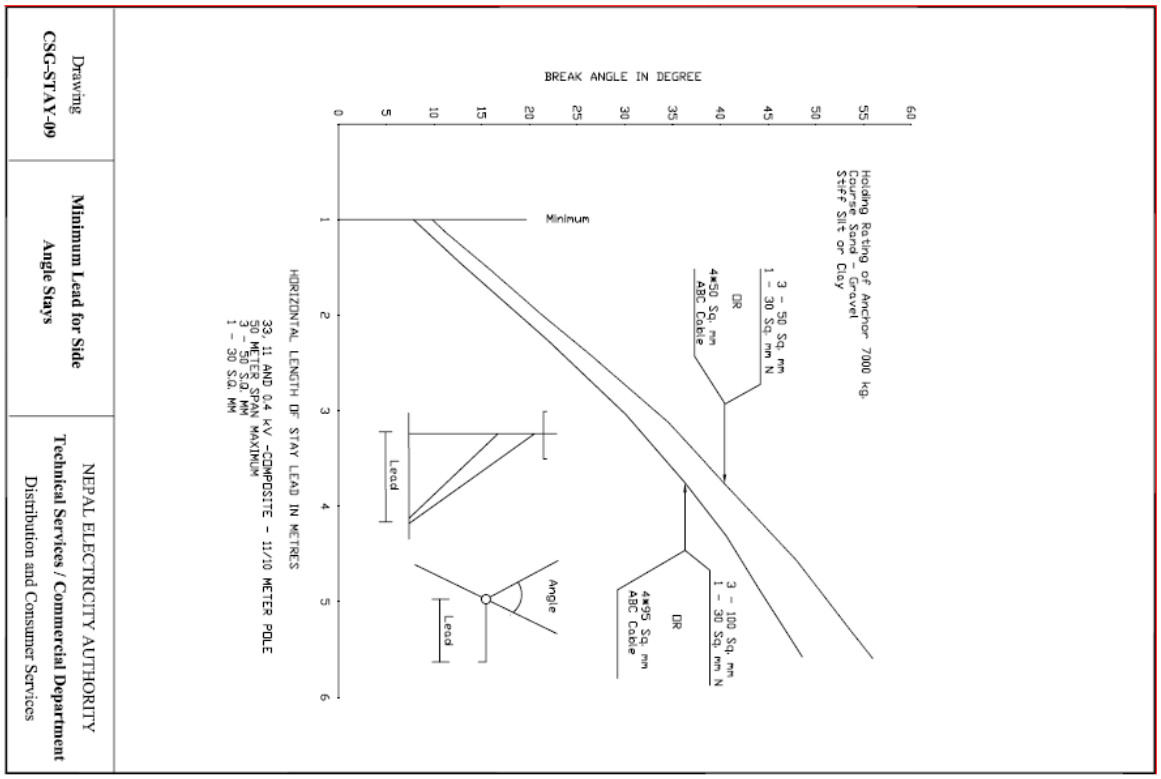
CSG-15	CONSTRUCTION STANDARDS MINIMUM LEAD FOR SIDE ANGLE STAYS	NEPAL ELECTRICITY AUTHORITY



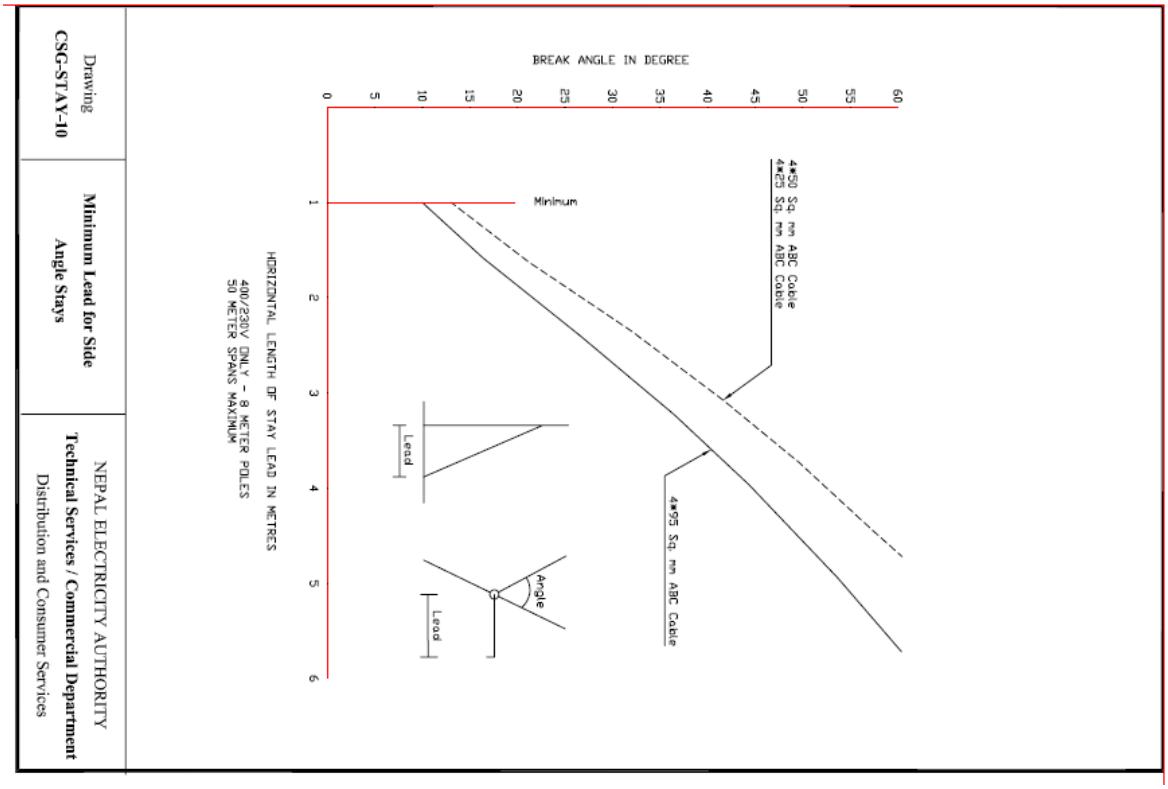
CSG-16	CONSTRUCTION STANDARDS MINIMUM LEAD FOR SIDE ANGLE STAYS	NEPAL ELECTRICITY AUTHORITY

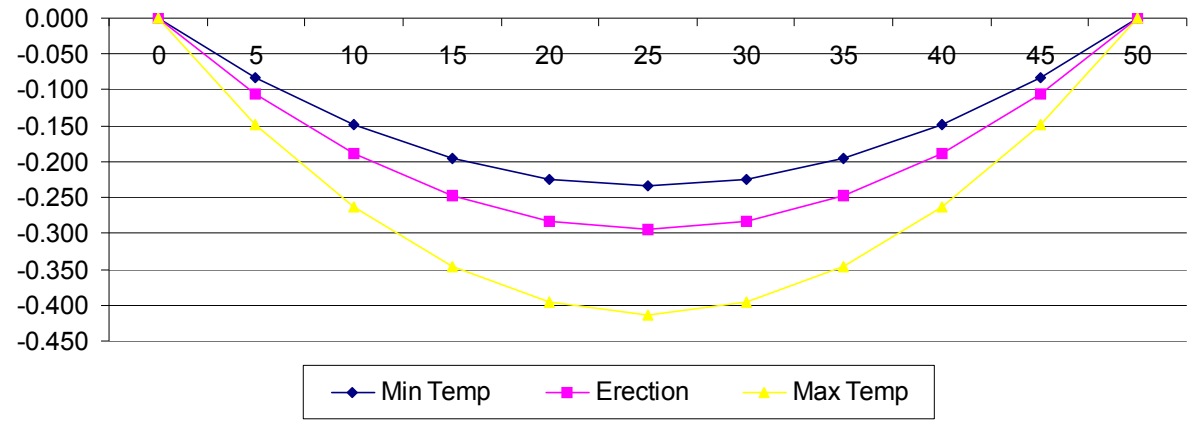


Drawing **CSG-STAY-08**	**Minimum Lead for Side Angle Stays**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

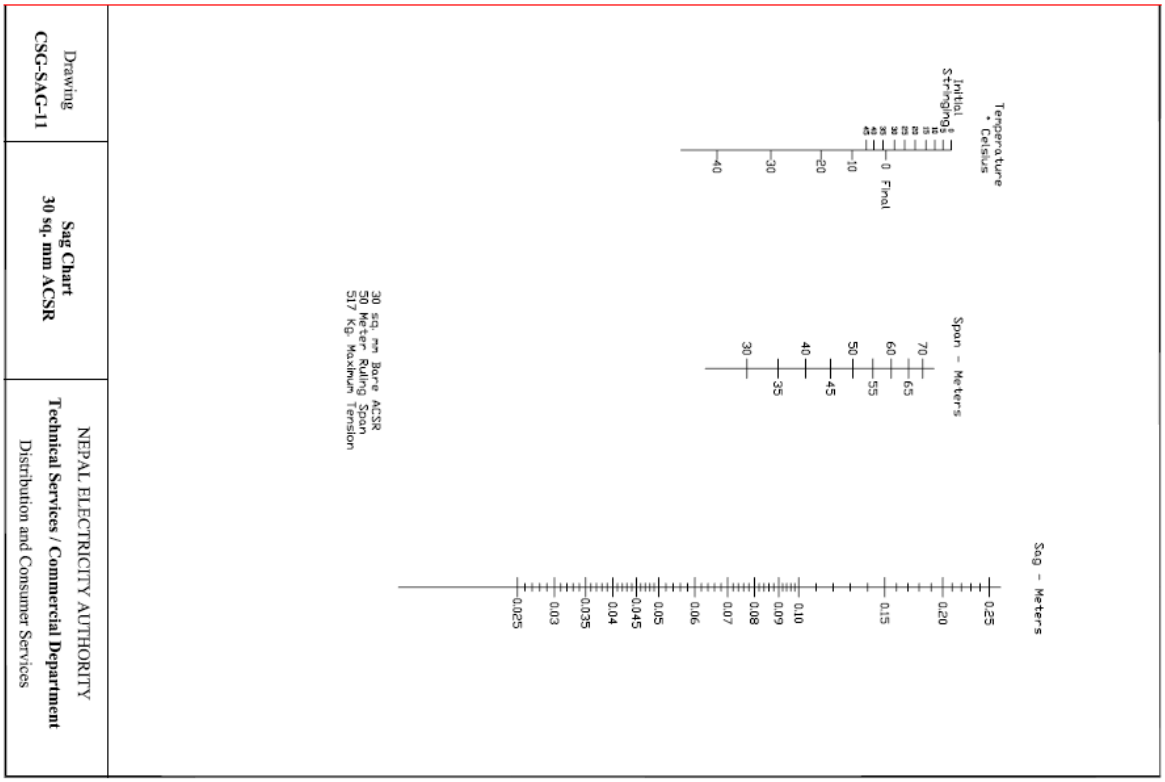


Drawing **CSG-STAY-09**	**Minimum Lead for Side Angle Stays**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

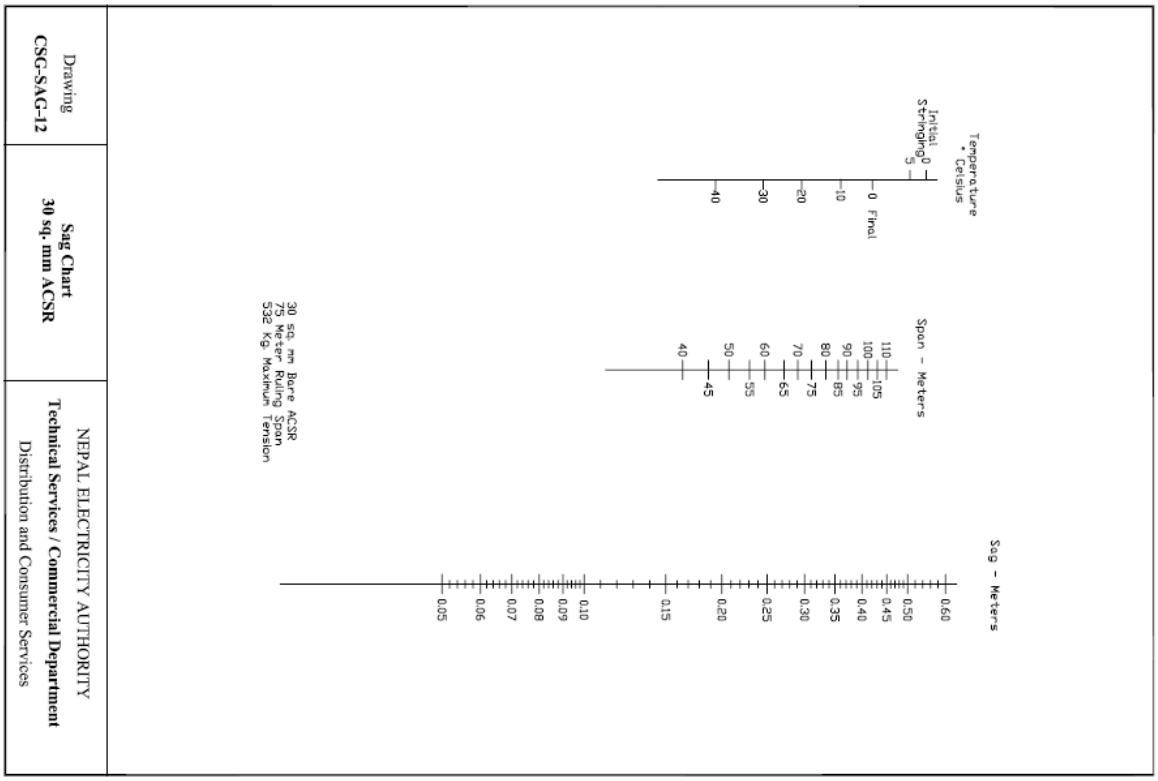

BREAK ANGLE IN DEGREE
0 5 10 15 20 25 30 35 40 45 50 55 60
1 2 3 4 5 6
HORIZONTAL LENGTH OF STAY LEAD IN METRES
400/230V ONLY - 8 METER POLES
50 METER SPANS MAXIMUM
Minimum
4*50 Sq. mm ABC Cable
4*25 Sq. mm ABC Cable
4*95 Sq. mm ABC Cable
Lead
Angle
Lead
Drawing
CSG-STAY-10
Minimum Lead for Side
Angle Stays
NEPAL ELECTRICITY AUTHORITY
Technical Services / Commercial Department
Distribution and Consumer Services



CSG-28	**CONSTRUCTION STANDARDS** **ABC-SAG CHART 95 SQ MM**	**NEPAL ELECTRICITY AUTHORITY** **DISTRIBUTION SYSTEM REHABILITATION** **NEA**



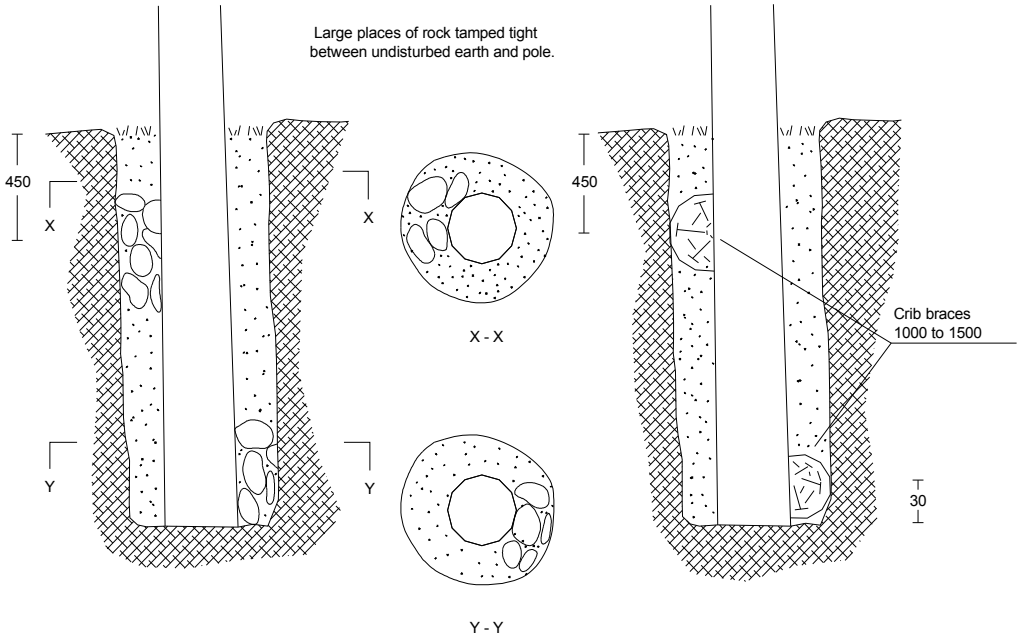
Drawing		
CSG-SAG-11	**Sag Chart** **30 sq. mm ACSR**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services



Drawing		
CSG-SAG-12	**Sag Chart** **30 sq. mm ACSR**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

PLOE LENGTH (m.)	DEPTH OF BURIAL (m.)
8	1.5
9	1.5
10	1.7
11	1.8

Direction Of STRAIN

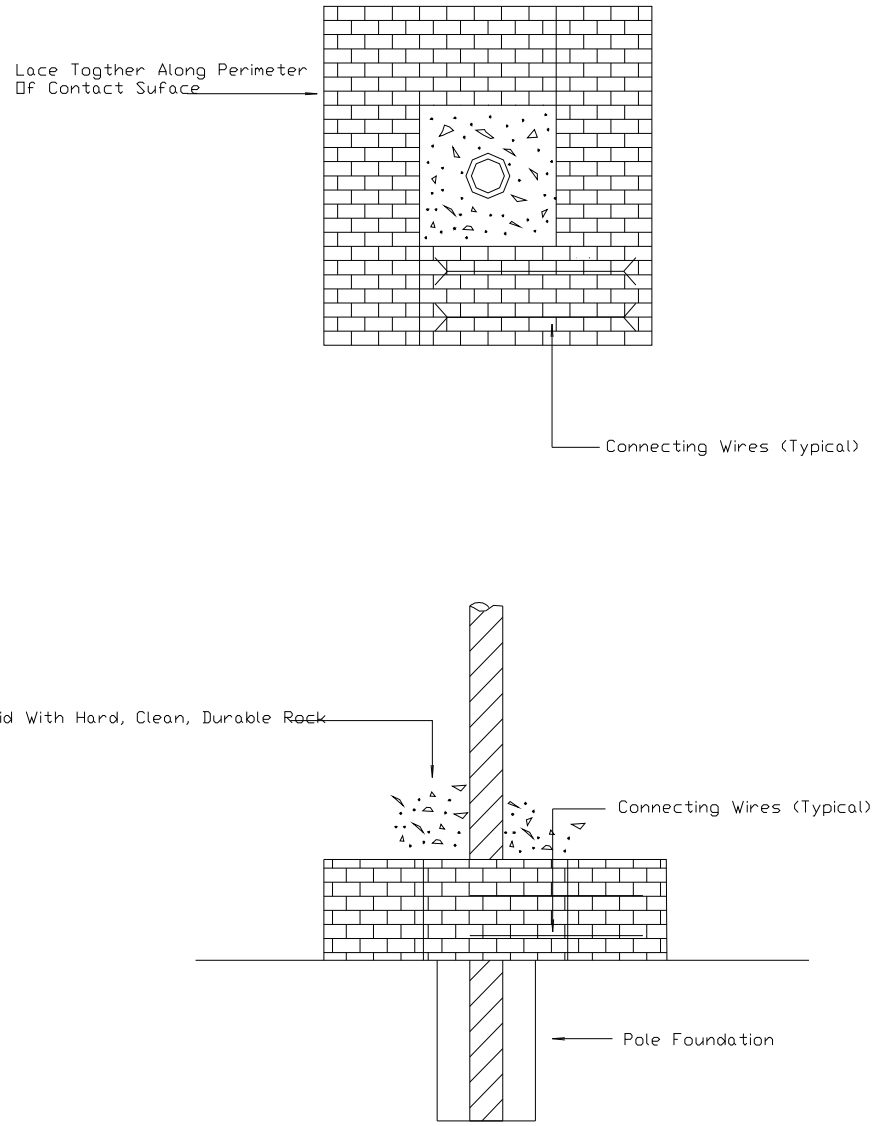


For use where ground is soild or compact.

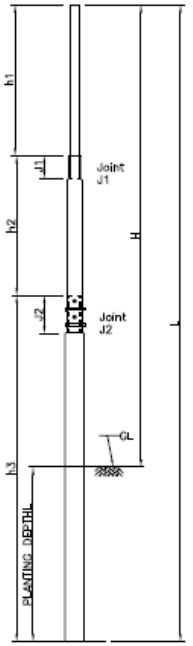
For use where ground is soft

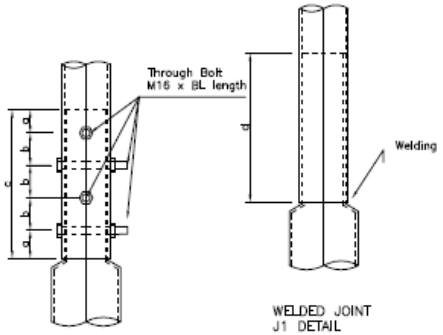
NOTE
CRIBBING FOR POLES WITHOUT CONCRETE FUNDATIONS.

CSG-05	CONSTRUCTION STANDARDS POLE BURIAL	NEPAL ELECTRICITY AUTHORITY



CSG-06	CONSTRUCTION STANDARDS POLE PROTECTION IN SHALLOW RIVER BEDS	NEPAL ELECTRICITY AUTHORITY





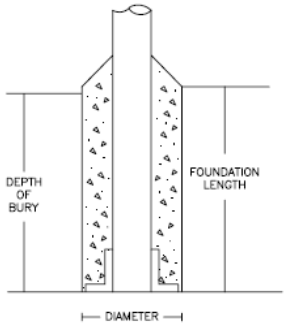
Pole type>>			8 M 410-SP-13
L		m	8
H		m	6.5
Top segment	OD	mm	88.9
	Thickness	mm	3.25
	h1	m	1.75
Middle segment	OD	mm	114.3
	Thickness	mm	3.65
	h2	m	1.75
Bottom Segment	OD	mm	139.7
	Thickness	mm	4.5
	h3	m	4.5
Joint J1	WELDED JOINT		
Joint J2	d	mm	230
	a	mm	45
	b	mm	70
	c	mm	300
	BL	mm	160
PLANTING DEPTH		m	1.5

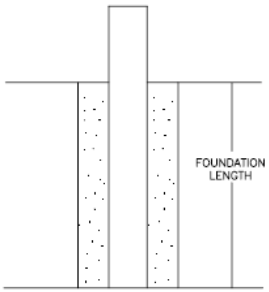
Note:-

1. All dimensions are in mm otherwise mentioned.
2. Drawings are not to scale.
3. Standards:-
   IS2713-1980- (Part I to II) Or Equivalent Specification (Tubular Poles for Overhead Power Lines)
   IS 1161-1998 Or Equivalent (Steel Tubes for Structural Purposes)
   IS 2062-1992 Or Equivalent (Steel for General Structural Purposes)
   IS 2629-1985 Or Equivalent (Standard for Hot Dip Galvanization)
4. Poles shall be hot dip galvanized inside as well as outside surface over the length specified in the specification.
   The remaining exposed outside portion shall be painted with red oxide painting in accordance with specification.

PLOE LENGTH (m.)	DEPTH OF BURIAL (m.)	FOUNDATION LENGTH (m.)	SOIL CLASS – Kg./Sq. mm.						
			0.5	0.75	1.0	2.0	3.0	4.0	5.0
			FOUNDATION DIAMETER – mm.						
9	1.5	1.6	1050	860	750	530	430	N/R	N/R
11	1.8	1.9	1080	880	760	540	440	N/R	N/R

N/R = NOT REQUIRED





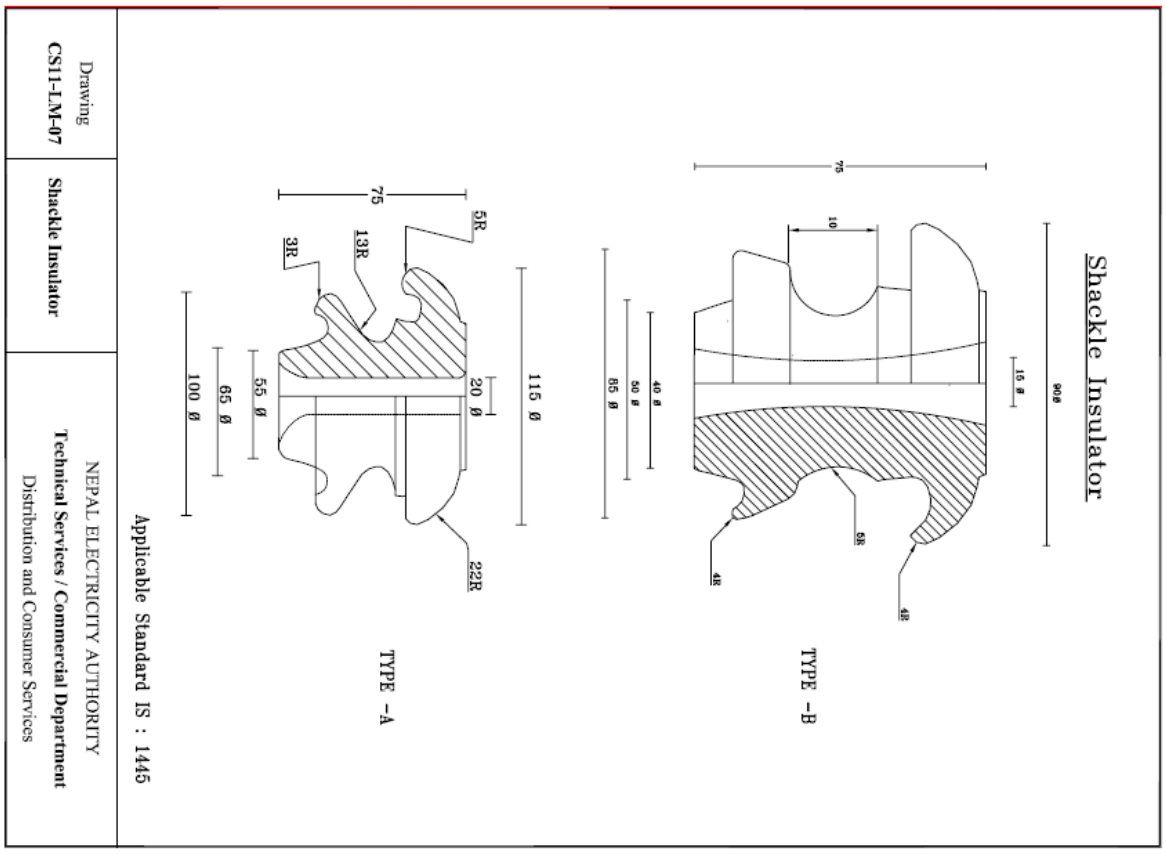
FUNDATION FOR STEEL TUBULAR AND CONCRETE POLES

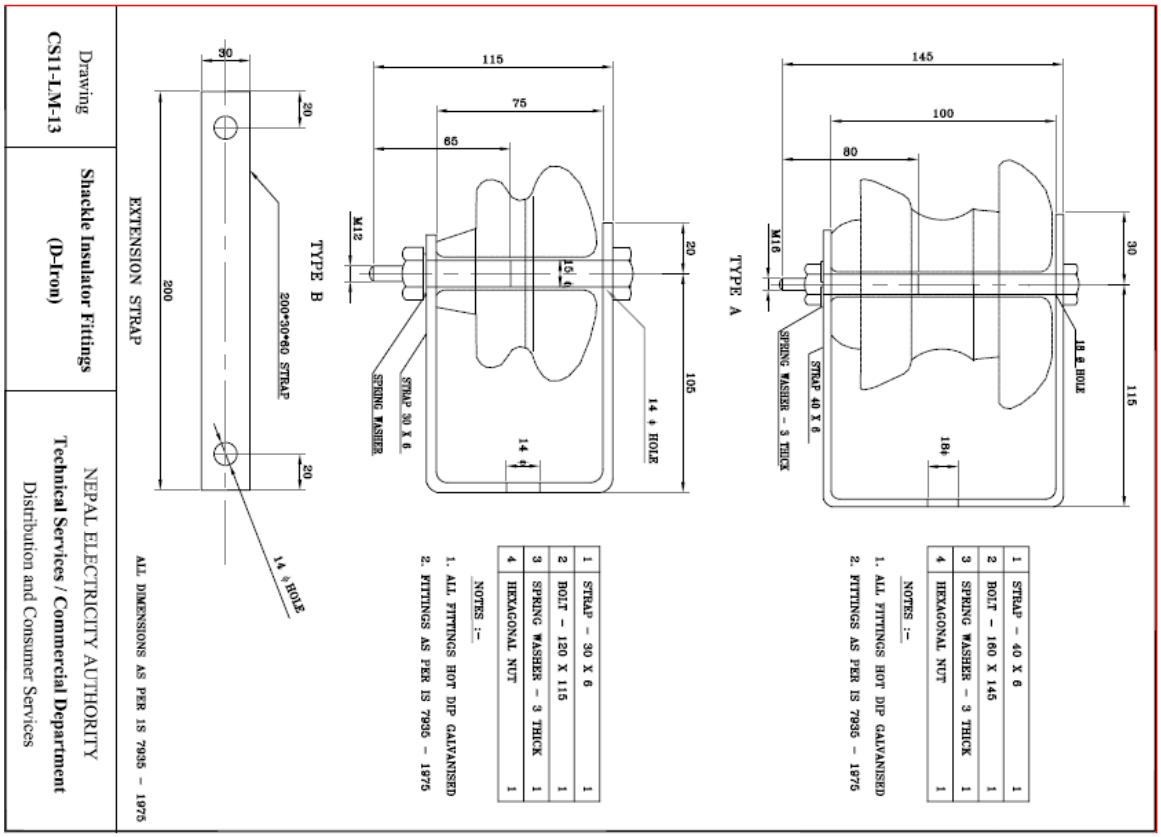
FOUNDATION

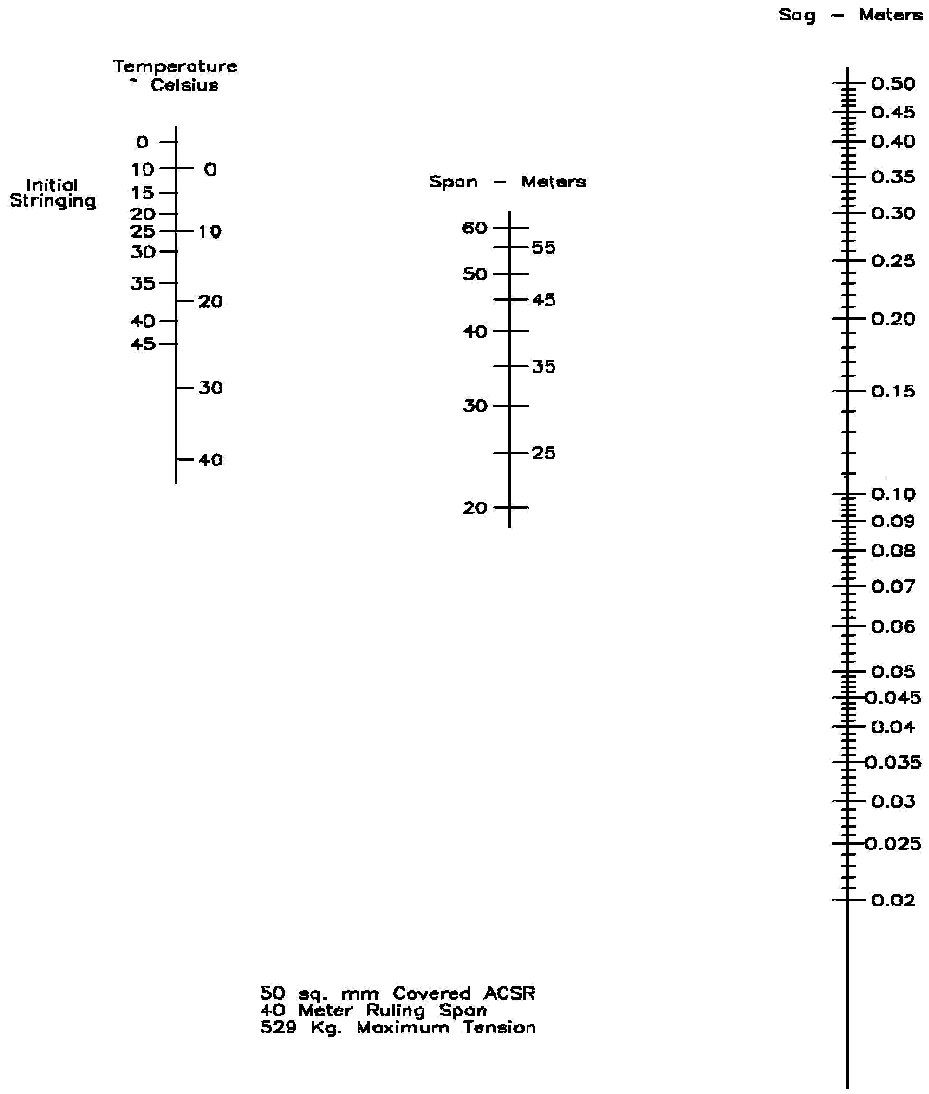
CONCRETE TO BE USED FOR FOUNDATIONS:
1 PART CEMENT
2 PART SAND
3 PART AGGREGATE
— BY VOLUME

WATER – CEMENT RATIO:
32 LITERS – 50Kg. APPROX.

Drawing CSG–POLE-01	**Pole Setting**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

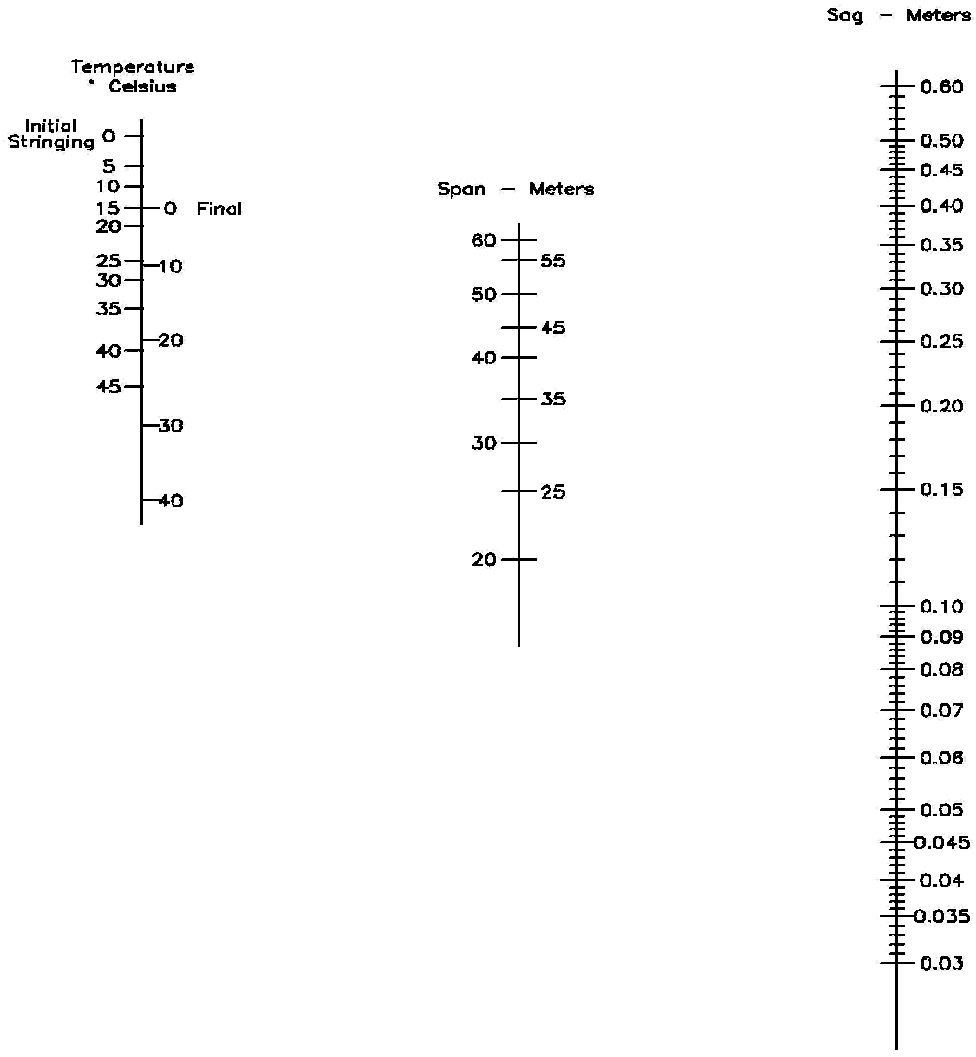

Shackle Insulator
90 ø
15 ø
75
10
40 ø
50 ø
85 ø
5R
4R
TYPE -B
75
5R
13R
3R
115 ø
20 ø
55 ø
65 ø
100 ø
22R
TYPE -A
Applicable Standard IS : 1445
NEPAL ELECTRICITY AUTHORITY
Technical Services / Commercial Department
Distribution and Consumer Services
Shackle Insulator
Drawing
CS11-LM-07


NEPAL ELECTRICITY AUTHORITY
Technical Services / Commercial Department
Distribution and Consumer Services
Shackle Insulator Fittings
(D-Iron)
Drawing
CS11-LM-13
TYPE A
145
100
80
30
115
M16
18 ϕ HOLE
SPRING WASHER - 3 THICK
STRAP 40 X 6
18ϕ
1 STRAP - 40 X 6 1
2 BOLT - 160 X 145 1
3 SPRING WASHER - 3 THICK 1
4 HEXAGONAL NUT 1
NOTES :-
1. ALL FITTINGS HOT DIP GALVANISED
2. FITTINGS AS PER IS 7935 - 1975
TYPE B
115
75
65
M12
20
105
14 ϕ HOLE
STRAP 30 X 6
SPRING WASHER
14 ϕ
1 STRAP - 30 X 6 1
2 BOLT - 120 X 115 1
3 SPRING WASHER - 3 THICK 1
4 HEXAGONAL NUT 1
NOTES :-
1. ALL FITTINGS HOT DIP GALVANISED
2. FITTINGS AS PER IS 7935 - 1975
EXTENSION STRAP
30
20
200
200*30*60 STRAP
20
14 ϕ HOLE
ALL DIMENSIONS AS PER IS 7935 - 1975



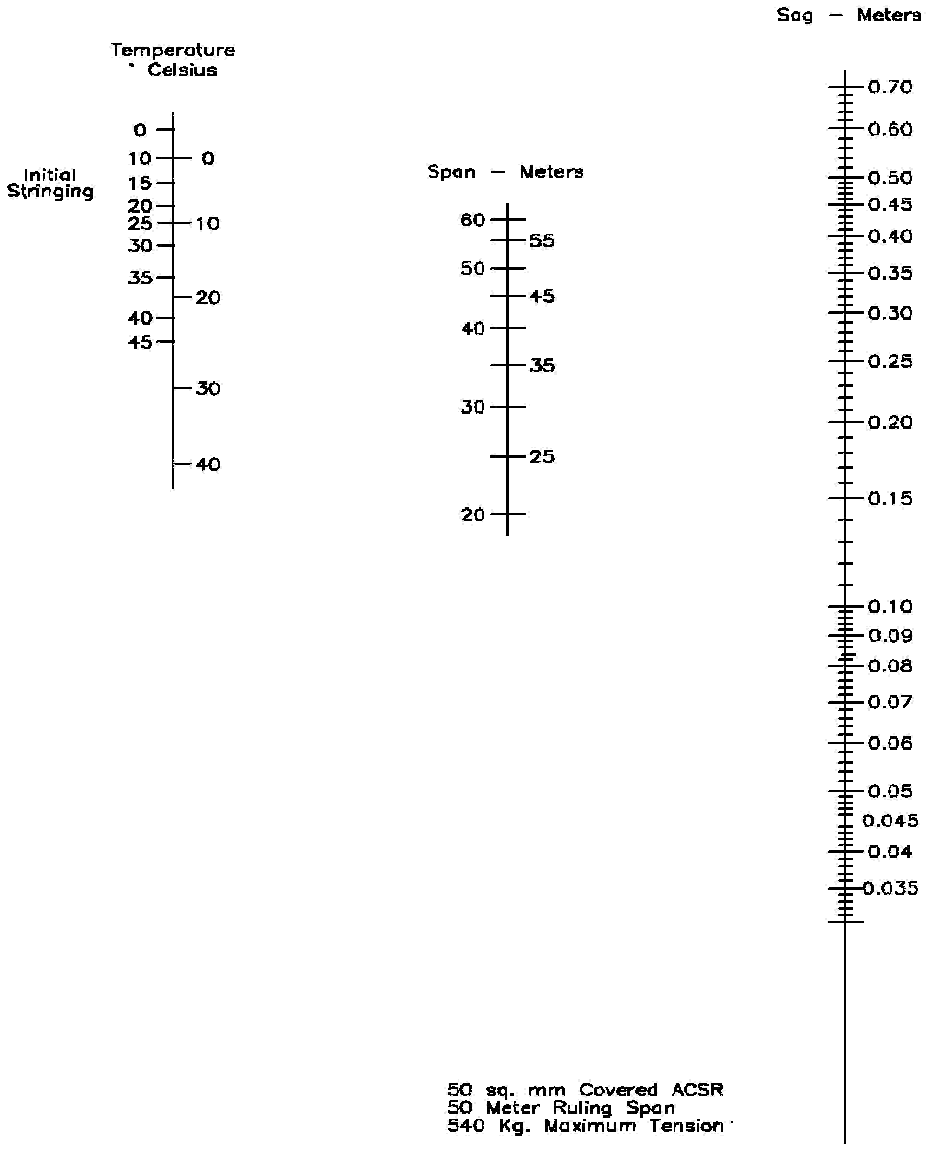
50 sq. mm Covered ACSR
40 Meter Ruling Span
529 Kg. Maximum Tension

Drawing **CSG-SAG-06**	**Sag Chart** **50 sq. mm ACSR**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

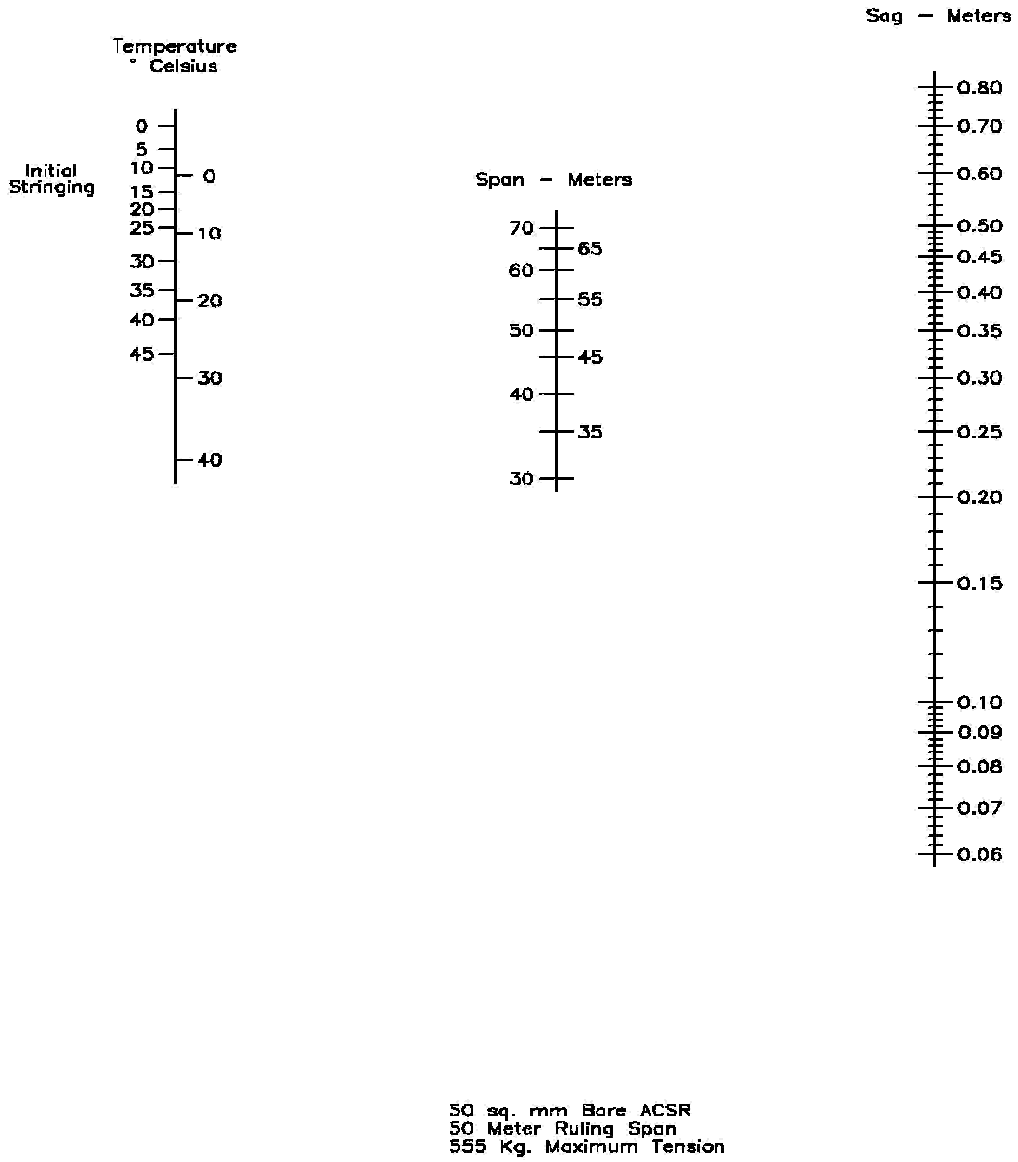


50 sq. mm Bare ACSR
40 Meter Ruling Span
540 Kg. Maximum Tension

Drawing **CSG-SAG-07**	**Sag Chart** **50 sq. mm ACSR**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

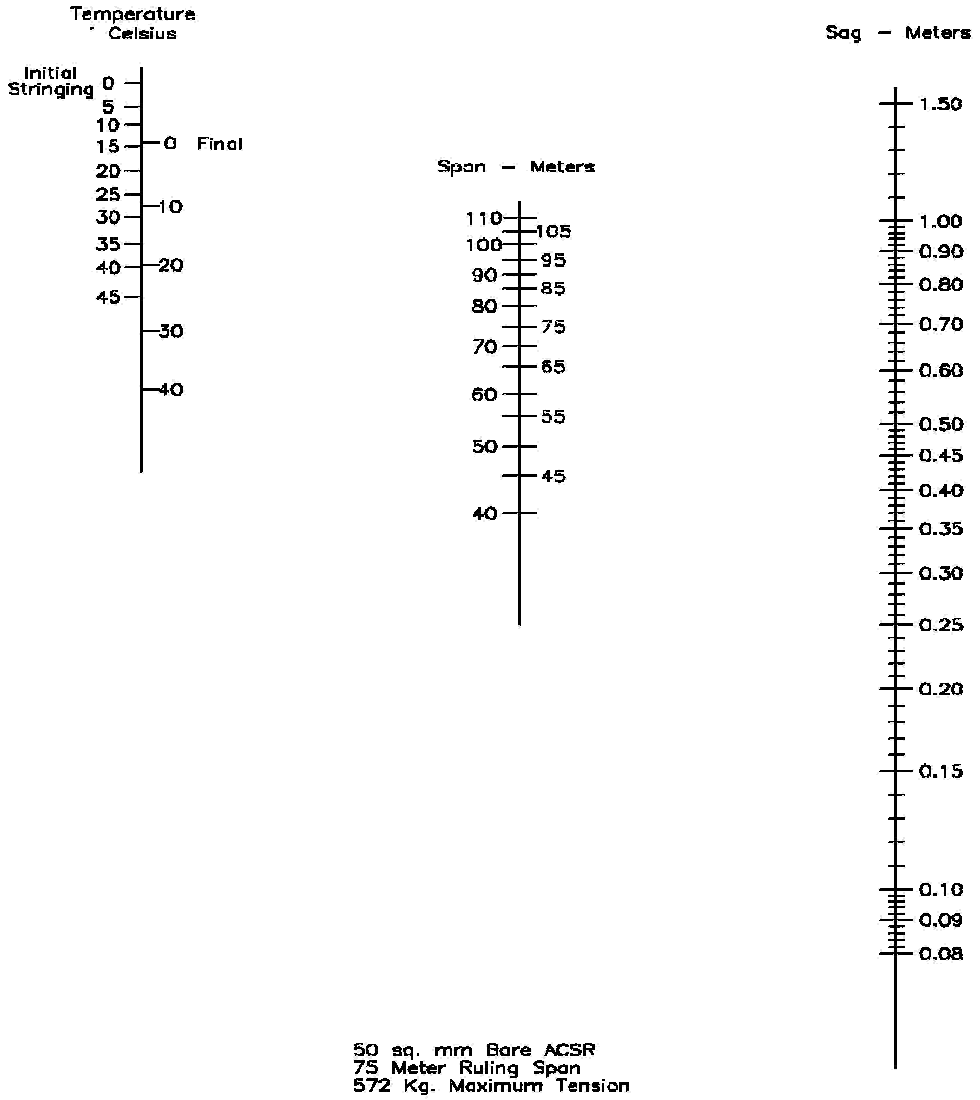


Drawing **CSG-SAG-08**	**Sag Chart** **50 sq. mm ACSR**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services



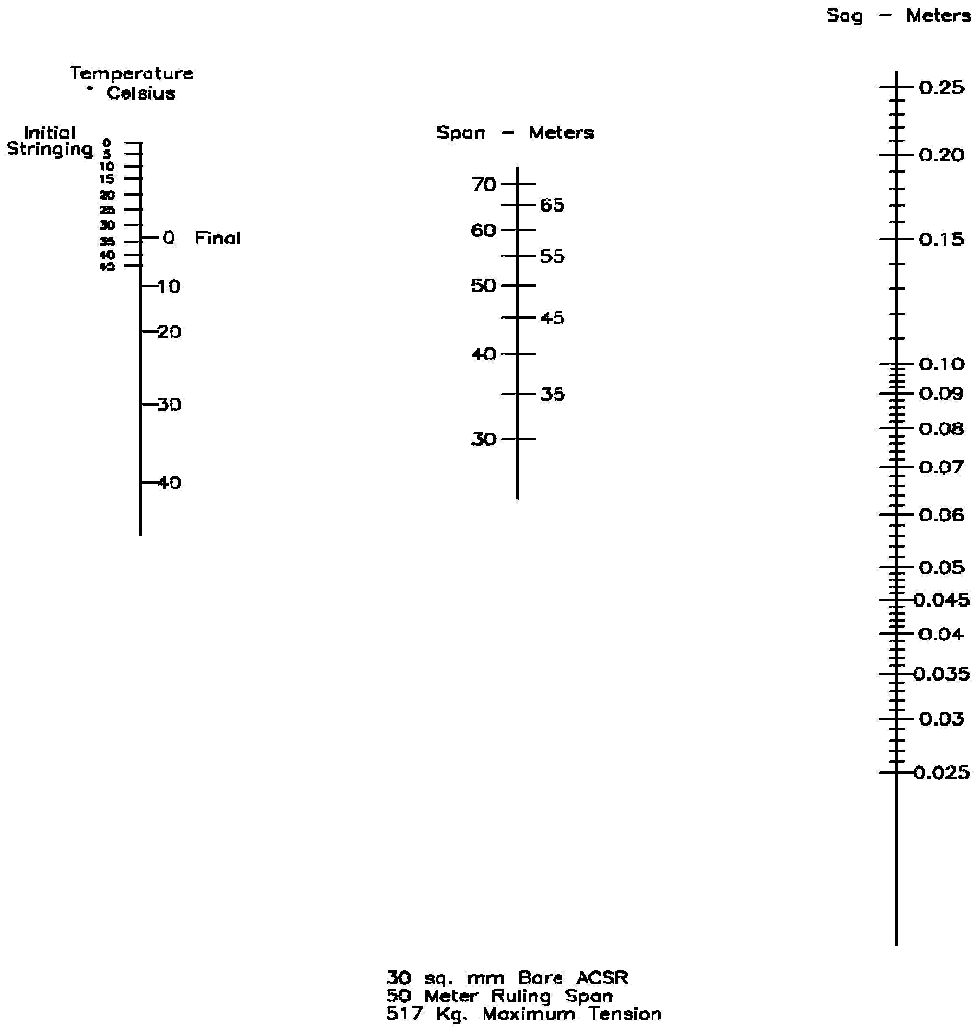
50 sq. mm Bare ACSR
50 Meter Ruling Span
555 Kg. Maximum Tension

Drawing **CSG-SAG-09**	**Sag Chart** **50 sq. mm ACSR**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services



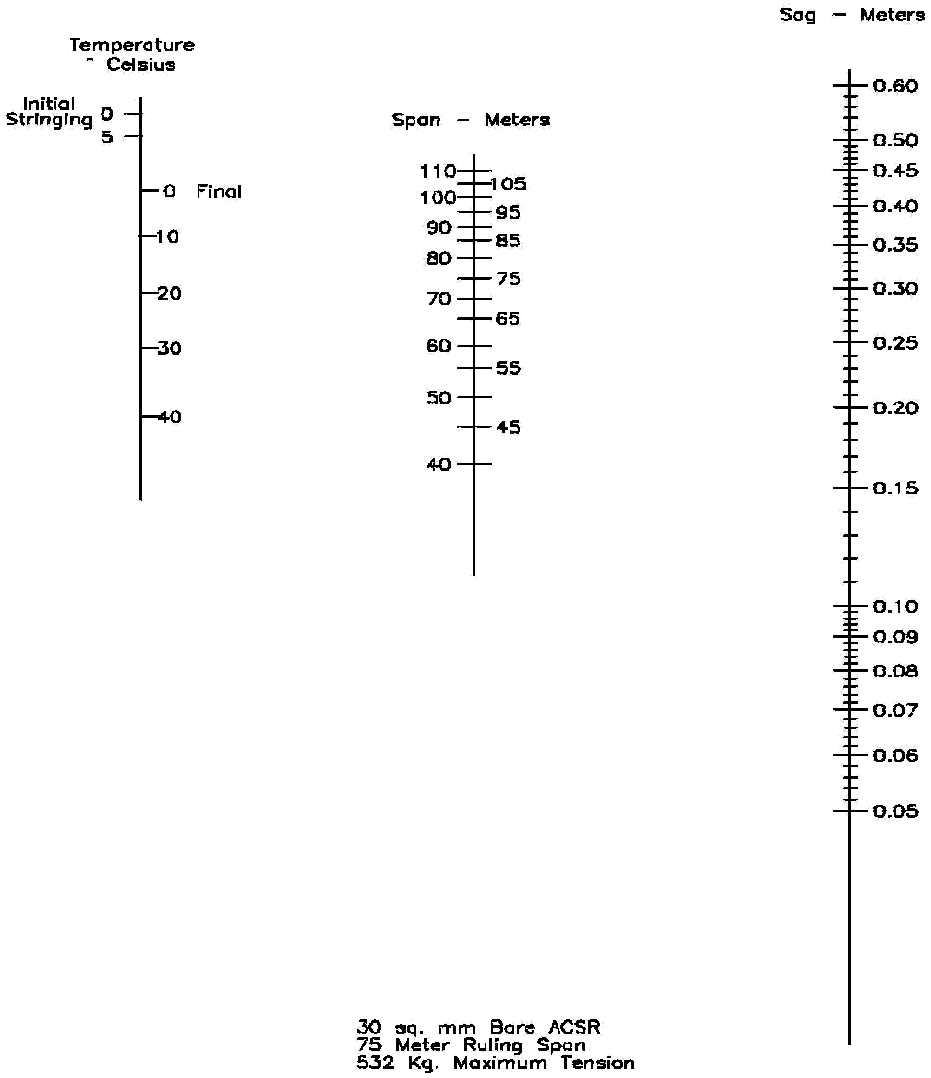
50 sq. mm Bare ACSR
75 Meter Ruling Span
572 Kg. Maximum Tension

Drawing **CSG-SAG-10**	**Sag Chart** **50 sq. mm ACSR**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services



30 sq. mm Bare ACSR
50 Meter Ruling Span
517 Kg. Maximum Tension

Drawing CSG-SAG-11	Sag Chart 30 sq. mm ACSR	NEPAL ELECTRICITY AUTHORITY Technical Services / Commercial Department Distribution and Consumer Services



30 sq. mm Bare ACSR
75 Meter Ruling Span
532 Kg. Maximum Tension

Drawing **CSG-SAG-12**	**Sag Chart** **30 sq. mm ACSR**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

Nepal Electricity Authority
Kathamndu Regional Office
Dolakha Distribution Centre
Tender No: DDC/073/074/Line-01

Bill of Quantity

Job : 11/0.4 KV Line Extension and Transformer Installation
Location : Different VDCS and Municipality of Dolakha District as described in scope of works

S.N.	Description	Unit	Total quantity	Rate(in Figure)	Rate(in Words)	TotalAmount
1	Erection of 10 meter new steel pole	nos	69			
2	Erection of 8 meter new steel pole	nos	416			
3	Stringing of 0.3ACSR of 0.4 kv	km	52.416			
4	Stringing of 0.5ACSR of 11kv	km	13.041			
5	Installation of Stayrod set	set	136			
6	15 KVA transformer Installation with tower set D/O, L/A,Earthing set,Mccb .	nos	1			
	Labor Cost					
	13 % VAT					
	Total Labor Cost (Including VAT)					

Total Cost(Including VAT) in words:

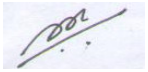
Contractor :
Signature:
Stamp:

Nepal Electricity authority
Distribution and consumer Services
Dolakha distribution Center
Work Schedule

Job : 11/0.4 KV Line Extension and Transformer Installation (DDC/073/074/Line-01)
Location : Different VDCs and Municipality of Dolakha District

A) Material Cost		**Work Schedule**								
S.N.	**Description**	**Month 1**	**Month 2**	**Month 3**	**Month 4**	**Month 5**	**Month 6**	**Month 7**	**Month 8**	**Month 9**
1	Erection of 8 and 10 meter Steel pole									
2	Installation of D-iron shackel set with nutbolts									
3	Installation of Stay set									
4	Stringing of 0.03ACSR of 0.4 kv									
5	Stringing of 0.05ACSR of 11kv									
6	Fittings of 4 Feet MS Channel (Size 100x50x50x6.4x1200 mm) with accessories									
7	Fittings of Top Arm MS Channel (Size 100x50x50x6.4x300 mm) with accessories									
8	Fittings of 11 KV Pin, Disc insulators with accesories									

Note: Contractor have to fill this sheet



Contractor :
Signature:
Stamp: