

Telephone no. - 01398-252945 (O)  
e-mail : seedcshamli@gmail.com



कार्यालय  
अधीक्षण अभियन्ता  
पश्चिमांचल विद्युत वितरण निगम लि०  
विद्युत वितरण मण्डल  
निकट-33/11 केवी विद्युत उपकेन्द्र, करमूखेडी  
शामली-247776

E-Tender Specification No. : 46/2024-2025

Name of item/work : विद्युत वितरण खण्ड-द्वितीय, शामली के अर्न्तगत जमा योजना के अर्न्तगत स्वीकृत प्रांकल्लन के सापेक्ष खण्ड के कार्यक्षेत्र में उपभोक्ताओं द्वारा जमा योजना में नये संयोजन/अन्य लाईन निर्माण आवेदनो के/झटपट योजना/निवेश मित्र योजना के सापेक्ष शासन की मंशा के अनुरूप उच्चाकारियों के दिशा निर्देशो के तारतम्य में नये विद्युत संयोजन निर्धारित समय सीमा में अवमुक्त किये जाने एवं लाईन निर्माण इत्यादि कार्य जमा योजना मद में रनिंग निविदा के माध्यम से वित्तीय वर्ष 2024-25 हेतु वाहय एजेन्सी के द्वारा सम्बन्धित कार्यो कराया जाना।

Tender Fee (non-refundable) : Rs.1180.00 (tender fee Rs.1000+GST 18% of tender fee ie Rs 180.00)

Earnest money : Rs. 7000-00

Due date of opening of tender : 19-11-2024

(Cost of Tender & Earnest Money should be deposit individually in our bank A/C No. 0424002100137349  
( IFS Code- PUNB0042400) and Branch Palika Bazar, Shamli through RTGS/NEFT)

The undersigned reserves the right to reject any or all the tenders without assigning any reason thereto.

**Superintending Engineer**

# NIT

## E-Tender Notice

**RFP No.4092**

**dated 17.10.2024**

E-Tenders are invited in two parts (part-I Techno Commercial Bid and Part II Price Bid) for the work of (Project Description in brief) in PVVNL. Bid document (Tender Specification) is available online on <https://etender.up.nic.in> as per particulars indicated below. Any changes in the Bid Schedule, corrigendum etc. shall also be notified via same website. Prospective bidders are therefore requested to regularly. Check the website for any updates.

Sr.no	Particulars	Details
1	E-Tender no.	46/2024-25
2	E-Bid Portal (website)	<a href="https://etender.up.nic.in">https://etender.up.nic.in</a>
3	Name of Work/Supply	Work of Deposit Scheme against passed estimate from R.Tender under of EDD-2, shamli under EDC,Shamli
	Supply of material with quantity	—
4	E-Tender Cost	(Rs.1000 + GST(@18%) Total Rs.1180 (Non-Refundable)
5	Earnest money deposit	Rs. 7000 (Rs.Seven thousands only)
6	Document dowanloading/sale date starts	06-11-2024
7	Document dowanloading/sale date ends	19-11-2024
8	e- Bid submission start date	06-11-2024
9	e- Bid submission end date	19-11-2024 12.00 Hrs
10	Opening date of e-bid part-I	19-11-2024 15.00 Hrs
11	Opening date of e-bid part-II (Price Part)	Will be notified later.

Note: Bid shall be accepted thorough the e-tender portal. Tender issuing authority is not responsible for the delay/downloading of tender document by the recipient due to any problem in accessing the e-tender website. The tender issuing authority is also not responsible for delay in uploading bids due to any problem in the e-tender website. Cost of Bid Document (in the form of NEFT/RTGS) & Earnest Money Deposit (EMD In The Form Of NEFT/RTGS) shall be in favour of **SE,EDC,Shamli**(A/C No. 0424002100137349( IFS Code- PUNB0042400) and Branch Palika Bazar, Shamli ) payable at Shamli. Further details are available at **website:https://etender.up.nic.in**.Discom /Circle reserves the right to reject any or all proposal or cancel the bid without assigning any reason thereof.

From .....

.....

.....

.....

To,

The Superintending Engineer,  
Electricity Distribution Circle,  
PVVNL  
Shamli

Dear Sir,

I/We hereby submit through RTGS/NEFT Rs..... (Rupees .....  
.....) only as **Earnest money and** Rs..... (Rupees  
.....) only as **tender fee** for Tender  
Specification No. 46/**2024-2025** in your departmental Bank account no. 0424002100137349 in  
PNB, Palika Bazar, shamli (IFS code- PUNB0042400) (**evidence slip is enclosed with Part-1 of the  
offer as Earnest money & Tender fee**)

Yours faithfully,

Signature of E-Tenderer  
with full address and seal

#### NOTE

1. Cheques will not be accepted.
2. RTGS/NEFT etc. of any of the scheduled banks will only be accepted.

From .....

.....

.....

.....

To,  
The Superintending Engineer,  
Electricity Distribution Circle,  
PVVNL  
Shamli

Sub. : **E-Tender Specification No.46/ 2024-2025.**

Dear Sir,

With reference to your invitation of E-Tender for the above, I/We hereby offer to the PVVNL the items in the schedule of prices and delivery annexed or such portion thereof specification and schedule of rates to the satisfaction of the Purchaser or in default thereof, to forfeit and to pay to the PVVNL the sum of money mentioned in the said conditions.

The rates quoted are inclusive prorated and in full satisfaction of all claims.

I/ We agree to abide by this E-tender for the period of 180 days from the date fixed for opening of the same.

A sum of Rs. .... (Rupees ..... ) only has been deposited in the form of RTGS/NEFT in departmental Bank account no. 0424002100137349 in PNB, Palika Bazar, Shamli (IFS code- PUNB0042400) in favour of the SE, EDC, shamli **(evidence slip is enclosed with Part-1 of the offer as Earnest money)**

I/We hereby undertake and agree to execute a Contract in the in accordance with the conditions of the contract.

Encl. : As above

Date :

Witness

Yours faithfully,

Signature of the E-Tenderer  
With full address and seal.



## DECLARATION FORM

(To be filled in and signed by tenderer)

In case the tenderer does not submit this agreement alongwith e-tender, his e-tender can be rejected without assigning any reason.

## AGREEMENT

(On a non-judicial stamp paper of Rs. 10/- only)

E-Tender invited by : SE, EDC, Shamli

E-Tender for(Name of work) : विद्युत वितरण खण्ड-द्वितीय, शामली के अन्तर्गत जमा योजना के अन्तर्गत स्वीकृत प्रांकल्लन के सापेक्ष खण्ड के कार्यक्षेत्र में उपभोक्ताओं द्वारा जमा योजना में नये संयोजन/अन्य लाईन निर्माण आवेदनो के/झटपट योजना/निवेश मित्र योजना के सापेक्ष शासन की मंशा के अनुरूप उच्चाकारियों के दिशा निर्देशो के तारतम्य में नये विद्युत संयोजन निर्धारित समय सीमा में अवमुक्त किये जाने एवं लाईन निर्माण इत्यादि कार्य जमा योजना मद में रनिंग निविदा के माध्यम से वित्तीय वर्ष 2024-25 हेतु वाहय एजेन्सी के द्वारा सम्बन्धित कार्यो कराया जाना ।

E-Tender Notice No. : 46/2024-2025

Name & Address of the E- tenderer :

In consideration of the UPPCL / PVVNL having treated the E-Tenderers to be an eligible person whose E-Tender may be considered; the E-Tenderer hereby agrees to the conditions that the proposal in response to the above invitation shall not be withdrawn within three months from the date of opening of the E-tender, also to the condition that if thereafter the E-tenderer does withdraw his proposal within the said period the earnest money deposited by him may be forfeited to the PVVNL at the discretion of the latter.

All disputes arising out of and touching of relating to the subject matter of this agreement shall be subject to the jurisdiction of local court of Shamli and High Court of judicature at Allahabad only.

Signed this .....day of .....

Witness :

Signature of the E-Tenderer  
Name & Address

**PRE QUALIFYING CONDITIONS OF THE TENDERERS AGAINST SHORT TERM E-TENDER NO.46/ 2024-25.**

The bidders have to fulfill following minimum conditions of experience and financial competence in order to qualify for consideration this tender:

फर्म/टेकेदार को निविदा के भाग-प्रथम में निम्नलिखित प्रपत्र अपलोड कराने होंगे अन्यथा उसका द्वितीय भाग नहीं खोला जायेगा।

Sl. No.	PARTICULARS	INFORMATION
1	<b>TECHNICAL CAPABILITY</b>	1.1- The Bidder should have a “ <b>Class-A</b> ” <b>Electrical License</b> Contractor having validity till March, 2025. 1.2- The Bidder should have <b>experience successfully</b> completed the similar and higher rating work in <b>last three financial year</b> as prime contractor from the date of opening of Bid Part-I in Govt. / PSU Unit- a. having min.order value of 80% of the estimated cost of tender specification.or b. having min. order value of 50% each (two) of the estimated cost of tender specification.or c. having min order value of 40% each (three) of the estimated cost of tender specification.
2	<b>FINANCIAL CAPABILITY</b>	2.1.i- <b>The Minimum Annual Average Turnover (MAAT)</b> for the best Three years out of the last Last Five Financial years MAAT should not be less than <b>Rs.10.50 Lacs.</b> 2.1.ii- <b>Net worth</b> of the bidder should be positive. Net worth means the sum total of the paid up capital and free reserves (excluding reserves created out of revaluation) reduced by aggregate value of accumulated losses (including debit balance in profit and loss account for current year) and intangible assets. 2.1.iii- <b>Solvency:-</b> The bidder should have a minimum solvency of <b>Rs. 1.75 Lacs</b> or credit facility for the same from Nationalized / scheduled bank. 2.2- The bidder shall to annex <b>character certificate</b> from the <b>District Magistrate</b> along with the Techno Commercial part of the bid document, issued within 3 months from the date of bid opening. Or Valid time period by issued district magistrate. 2.3- The bidder should not be <b>black listed / debarred</b> from business in any Govt. / Semi Government / PSU / Local Bodies etc. at the time of bid opening. They have to submit an undertaking regarding this along with the bid.
3	<b>Payment</b>	Payment will be done by concern EE after complete execution of work/ entire project & submissionof executed estimate and after getting satisfactory report in all respect from concern SDO/JE.
4	<b>Other Documents</b>	1. फर्म का वैध क्रियाशील जी.एसटी0 पंजीकरण का स्थायी प्रमाण-पत्र अपलोड करना। 2. फर्म के स्वामी का पैनकार्ड एवं आधार कार्ड की छायाप्रति संलग्न करना। 3. पिछले 03 वित्तीय वर्षों की सत्यापित आई0टी0आर0 प्रमाण पत्र लगाना। 4. निविदाकार द्वारा पूर्व में किये गये <b>समकक्ष</b> कार्यों का साक्ष्य आवश्यक रूप से अपलोड करना होगा। 5. <b>साझेदारी विलेख (पार्टनरशिप डीड) वैध प्रारूप</b> में नियमानुसार ई निविदा से सम्बन्धी वांछित प्रपत्रों के साथ भाग-प्रथम में संलग्न करेंगे अन्यथा की स्थिति में सम्बन्धी निविदा में प्रतिभागी फर्म को अर्ह नहीं माना जायेगा।
5	<b>Times of Completion:</b>	<b>The work shall be completed within 30 days from the date of handing over of the materials/line/ substation to the contractor the under supervision of Concerned EE/SDO/JE</b>
6	<b>Earnest Money and Tender Fee</b>	<b>The Bidder has to be Deposited Earnest Money Rs. 7 0 0 0 .00 and E-Tender Fee Rs. 1000+180=1180.00 (With GST) through RTGS in A/c of SE, EDC-shamli of PNB,Palika bazar, shamli Account No. 0424002100137349, IFSC Code- PUNB0042400 and pay-in slip, confirmation mail copy should be attached with the first Part through Online while filling the Tender Document.</b>

नोट- ई-निविदा से सम्बन्धित समस्त प्रपत्र/अभिलेख प्रथम भाग के साथ ई-टेंडर पोर्टल के माध्यम से आन लाईन ही प्राप्त किये जाएंगे कोई भी प्रपत्र/अभिलेख खण्ड/मण्डल कार्यालय में अलग से स्वीकार्य नहीं होगा तथा अधोहस्ताक्षरकर्ता द्वारा ई-निविदा में अपलोड किये अभिलेखों को आवश्यकतानुसार मूल अभिलेखों से सत्यापन किया जायेगा।

**Signature of E-Tenderer with seal**

**Terms & Conditions against E-Tender No. 46 /2024-2025 for Work of deposit Scheme against passed estimate from R.Tender under Jurisdiction of EDD-2, shamli under EDC,Shamli**

**Special Conditions of the Specification**

**Responsibilities of Contractor:-**

- 1- The contractor is required to make themselves fully conversant with the job required and the work shall be executed as per general conditions of the tender specification contract.
- 2- The contractor shall be supplying, erecting, testing & commissioning of all materials and equipment's not mentioned specifically in the scope of works but required to complete the job in all respect, except excluded specifically for which no extra payment shall be made.

**Others Terms & Conditions:-**

- 1- The charges for Road cutting, Forest Clearances charges, land lease charges or from any other agency which are required to complete the work shall be paid by the contractor.
- 2- Any loss or damage to any of the public utilities shall be repaired by the contractor at his own cost.
- 3- The Contractor shall have to arrange all carriage facility including transportation cartages, man power T&P etc on its own cost.
- 4- The Contractor shall make adequate Arrangement for proper Handling of Material to avoid any Damage/ Loss/Accident etc of any kind.
- 5- No T&P will be provided by the department. The Contractor shall arrange all the T&Ps. Equipment's. Welding set, generator set etc. required for carrying out the above work at his own cost.
- 6- The contractor shall be fully responsible for any loss/thefts/damaged/accidents the material of the departments and accordingly, he shall have to keep adequate watch and ward to avoid any loss/thefts / damages/ accidents etc. to the material of the PVVNL.
- 7 During the period of work in progress, the Contractor shall have to provide lighting arrangement sign board etc or necessary precautionary arrangement so that accident/ damages/ losses to the public/ manpower of the contractor/ department etc. are avoided.
- 8- The contractor shall be fully responsible for any accident/loss to the persons(s) working with/under him and shall have to pay compensation in accordance with the prevailing rules& regulations of Govt/PVVNL.
- 9- All the charges on account of damages/losses/thefts etc. involved under the condition laid down above shall be borne by the contractor.
- 10- Proper skilled staff included Supervisor capable for execution of the above work shall have to be arranged by the contractor. The safety of labour while at work shall be the responsibility of the contractor and any compensation to be paid to them on any account, whatsoever, shall also be responsibility of the contractor UPPCL/ PVVNL shall not be liable for any such compensation etc.
- 11- The contractor shall have to execute the work within the stipulated time as provided in the order (work- slip) to be issued by the competent authority.
- 12- A Penalty @½% per week for Delay in Execution of work shall be payable by the contractor on the total value of work not done/late done as per work slip. The maximum penalty livable will not, however, exceed 10% of the value of the order not execution.
- 13- The Proper Shut down will be given as required by the Contractor time to time as per site/system Requirement and Availability by the EE/SDO/JE of the Concern Area.
- 14- All the material will be provided by the Department (PVVNL), except Cable Jointing Kits, bricks, cement, coarse sand, river sand, brick ballast, stone ballast, all type of clamps, nuts & bolts and other petty items etc. if required for execution of work, which will be arranged by the contractor at his owncost.
- 15- Payment shall be made after completion, handover of the entire project and will getting satisfactory report in all respect of particular work. The bills in triplicate duly Pre - receipted with the original work-slip shall be submitted by the Contractor to the Engineer of the Contract for Payment.
- 16- The work is to be Done by the Contractor under the Direct Supervision of concerned EE/ S.D.O./JE (Distribution).
- 17- Depending upon the site conditions, the individual quantity of any item / work may vary up to ±50% but total value of the work shall not ±10% exceed beyond the Agreement Value as per rules.
18. All General Conditions of Contract laid down in Form "A" & Form "B" of UPSEB/ UPPCL/PVVNL shall also be applicable.
- 19- **The Contractor shall deposit a contract performance guarantee @ 10% of the value of Contract valid up to period of twelve months in the form of RTGS / NEFT / DD / Banker Cheque / BG/FDR/CDR/TDR (from a scheduled bank) only. Pledged in favour of SE, EDC, shamli within 7 Days issue of LOI/before agreement. Payable at Shamli and shall be returned/refund after three months only after Satisfactory Completion of work. In any case, the successful bidder shall not be allowed to deduct CPG amount from their running bills and they are required valid & requisite Contract Performance Guarantee.**
- 20- Income Tax shall be deducted from the bills of the Contractor as per rules prevailing at the time of payment.
- 21- If the Contractor Fails to execute the work within the stipulated period, the order placing authority reserve the right to get the work done departmentally or through any other agency. The Excess expenditure, if any, incurred in this connection plus 15% supervision charges shall be debited from the Contractor and it will be recovered from the

- Security Amount/Running/Pending Bills or through any other credit pending with UPPCL of the Contractor.
- 22- Not withstanding the agreement executed with the Contractor, the Engineer of the contract always reserves the right to get the work done by department or through any other agency. The Contractor shall have no objection and claims over such work.
- 23- The Work is to be done under the supervision of concerning EE.Shamli
- 24- The payment shall be done after submission of bills by the contractor after verification of the same by concerning officer and on availability of funds
- 25- The agreement can be terminated by the engineer of contract at any time by giving 15 days notice in the event of un-satisfactory performance of the work.
- 26- GST will be paid Extra as per Rate applicable by Govt.
- 27- Income Tax & GST etc shall be deducted as per rules as applicable at the time of payments.
- 28- The Agreement can be terminated by the Engineer of the Contract at any time without any notice in the event of un-satisfactory performance of the Contractor. This is however, without prejudice to the other Terms & Conditions of the Agreement.
- 29- Payment of work shall be done by Concern E.E, Shamli as per related area after successful completion of work and availability of funds.
- 30- For any dispute arising out of contract, Superintending Engineer, Electy. Dist.Circle, Shamli will decide the dispute and his decision shall be binding on both the parties
- 31- The quantity of work may be increased or decreased as per actual
- 32- Other terms & Conditions of Form 'A' of UPPCL shall be applicable.
- 33- Jurisdiction of Shamli District only.
34. सभी कार्यों के लिए आवश्यक लेवर एवं टी0एण्ड पी0 आदि की व्यवस्था निविदाकार को स्वयं करनी है।
35. ठेकेदार द्वारा क्रय के सन्दर्भ में सामान की कीमत तथा देय टैक्स आदि अलग-2 स्पष्ट रूप से अंकित किया जाए।
36. ठेकेदार द्वारा देय सामग्री की गुणवत्ता भी रैस्पो द्वारा निर्धारित मानको के अनुसार सुनिश्चित कर ली गयी।
37. कार्यों का विभागीय नियमों एवं शासन आदेशों के मानको के अनुरूप किया जाना अपेक्षित है तथा इसमें सभी इम्पलाईड वर्क्स सम्मिलित है।
38. उ0प्र0पावर कारपोरेशन लि0 के आदेश सं0 295/कार्य/14/पाकालि/2003-3क/2000 दिनांक 27.02.2003 के अन्तर्गत उपरोक्त कार्य कराया जाये तथा इस सम्बन्ध में निगम द्वारा समय-समय पर निर्गत आदेशों का भी पालन सुनिश्चित किया जायें।
39. संयुक्त सचिव (ज0श0प्रशि0एवं कार्य), उ0प्र0 पावर कारपोरेशन लि0 लखनऊ के कार्यालय ज्ञाप संख्या 1300 -कार्य / चौदह - पाकालि /2024-03 - के/ 2000 दिनांक 10.07.2024 एवं पत्रांक 1670 - कार्य / चौदह- पाकालि /2024 -03 -के/2000 दिनांक 18.09.2024 के द्वारा दिये गये निर्देशों के अनुरूप उपरोक्त कार्य कराये जाये तथा निगम द्वारा समय-समय पर निगत आदेशों का पालन सुनिश्चित किया जाये।
40. उत्तर प्रदेश भवन एवं सन्निर्माण कर्मकार (नियोजन तथा सेवा शर्त विनियमन) अधिनियम 1996 का पालन सुनिश्चित किया जायेगा।
41. सम्बन्धित कार्य पैकेज के वित्तीय लिंकेज में स्वीकृत स्थानीय व्यय की धनराशि के अन्तर्गत कराया जायेगा।
42. सम्बन्धित कार्य का सम्पादन सक्षम अधिकारी से पैकेज/प्रांकल्लन स्वीकृति के उपरान्त ही कराया जायेगा।
43. कार्य की अवधि में दरें पूर्णतः स्थिर रहेगी।
44. अधोहस्ताक्षरकर्ता को बिना कारण बताये उपरोक्त ई-निविदा को निरस्त करने का पूर्ण अधिकार सुरक्षित होगा।

**Superintending Engineer**

## विज्ञापन आदेश

प्रेषक :-

अधीक्षक अभियन्ता

पश्चिमांचल विद्युत वितरण निगम लि०

विद्युत वितरण मण्डल, शामली।

पत्रांक: 4092 / वि० वि० म० / शा० / निविदा

दिनांक: 17/10/24

सेवा में,

विज्ञापन व्यवस्थापक

हिन्दुस्तान

मेरठ

विषय: विज्ञापन सामग्री हेतु

महोदय,

विज्ञापन व्यवस्थापक

दैनिक शाह टाइम्स

मुजफ्फरनगर

कृपया संलग्न विज्ञापन अपने प्रतिष्ठित दैनिक समाचार पत्र में दिनांक 20.10.2024 के अंक या उसके पूर्व के अंक में कम से कम स्थान में हिन्दी समाचार पत्रों के लिये 8-10 प्वाइन्ट में तथा अंग्रेजी भाषा के समाचार पत्रों के लिए 8-8 प्वाइन्ट में रनिंग मीटर में प्रकाशित करने की व्यवस्था करें। हेडिंग के नीचे के नाम व पता यथा सम्भव एक लाइन में रनिंग मीटर के रूप में कम से कम स्थान में प्रकाशित करें। विज्ञापन में शीर्ष पर निगम का मांनोग्राम एवं सबसे नीचे इस विज्ञापन आदेश की संख्या व दिनांक नी सबसे छोटे पठनीय टाईप में अवश्य प्रकाशित करें।

- वर्गीकृत विज्ञापन दो कॉलम में (चौड़ाई 8 से०मी०) अथवा निविदा शुद्धिकरण/दैनिक सूचनाओं का 1 कॉलम (चौड़ाई 4 से०मी०) में प्रकाशित करें निगम का नाम "पश्चिमांचल विद्युत वितरण निगम लि०" 14 फ़ाउन्ट साईज B/W पट्टी तथा बोल्ड शब्दों (चौड़ाई 1 से०मी०) में प्रकाशित करें।
- प्रकाशन के बाद विज्ञापन आदेश की प्रथम मूल प्रति प्रकाशन हेतु प्रेषित सामग्री की मूल प्रति के साथ विज्ञापन शुल्क बीजक तीन प्रतियों में अग्रिम भुगतान प्राप्ति रसीद टिकट सहित प्रकाशित विज्ञापन की दो सम्पूर्ण वाटछर प्रतियाँ संलग्न करते हुए भुगतान हेतु प्रबन्ध निदेशक, पश्चिमांचल विद्युत वितरण निगम लि०, मेरठ को प्रेषित करें। विज्ञापन आदेश की प्रति के स्थान पर फोटों प्रति प्रेषित करने पर सत्यापन/भुगतान संभव न होगा।
- संलग्न हिन्दी/अंग्रेजी भाषा की विज्ञापन सामग्री अंग्रेजी भाषा के समाचार पत्र में अंग्रेजी भाषा के समाचार पत्र में अंग्रेजी भाषा में तथा हिन्दी समाचार पत्र में हिन्दी भाषा में ही किया जाये। हिन्दी समाचार पत्र के लिये संलग्न अंग्रेजी भाषा पत्र की सामग्री का अनुवाद हिन्दी भाषा में करने के उपरान्त ही विज्ञापन प्रकाशित किया जाये जिसके लिये समाचार पत्र को कोई अतिरिक्त शुल्क देय नहीं होगा।
- विज्ञापन प्रकाशित होते ही विलम्बतम एक सप्ताह के अन्दर प्रकाशित विज्ञापन की एक कटिंग अद्योहस्ताक्षरकर्ता को सूचनाार्थ अवश्य भेज दी जाये अन्यथा संबन्धित बीजक का सत्यापन/भुगतान नहीं किया जायेगा।
- ई-टेंडर / सूचना इत्यादि उपरोक्त निर्धारित तिथि के बाद निगम की पूर्वानुमति के बिना कदापि प्रकाशित न करें।
- यदि आपकी सूचना एवं जनसम्पर्क विभाग उत्तर प्रदेश तथा विज्ञापन डी०ए०वी०पी० निदेशालय नारत सरकार द्वारा विज्ञापन दरें स्वीकार न हों तो कृपया विज्ञापन का प्रकाशन न करें तथा अद्योहस्ताक्षरकर्ता को अविलम्ब इस आशय की सूचना देने का कष्ट करें।
- विज्ञापन के अन्त में सबसे छोटे टाईप में "विद्युत हैल्पलाइन 1800 - 180 - 3002 (मेरठ), 1800 - 180 - 8752 (लखनऊ)" तथा "राष्ट्रहित में ऊर्जा बचाये" का नारा अवश्य प्रकाशित करें।
- उक्त निर्देशों के विपरीत तथा गलत अथवा नुस्खे दंग से प्रकाशित किये गये विज्ञापनों में कार्रवाई के द्वारा नियमानुसार कटौती की जा सकती है। अथवा सम्पूर्ण बीजक का भुगतान रोका अथवा निरस्त किया जा सकता है।

संलग्न उपरोक्तानुसार

(राजेश तामर)

अधीक्षक अभियन्ता,  
विद्युत वितरण मण्डल,  
शामली

पत्रांक: 4092 / वि० वि० म० / शा० / निविदा तद दिनांक:

प्रतिलिपि निम्नलिखित को सूचनाार्थ एवं कार्यवाही हेतु प्रेषित:-

- अधीक्षक अभियन्ता (वाणिज्य)/सहायक जनसम्पर्क अधिकारी, कार्यालय प्रबन्ध निदेशक, पश्चिमांचल विद्युत वितरण निगम लि०, दिवटोरिया पार्क, मेरठ को इस अनुरोध के साथ प्रेषित है कि उपयुक्त निविदा सूचना पश्चिमांचल विद्युत वितरण निगम लि० की वेब साईट [www.pvwnl.org](http://www.pvwnl.org) पर अपलोड कराने का कष्ट करें।
- अधिशाली अभियन्ता, विद्युत वितरण खण्ड-प्रथम/द्वितीय/तृतीय/चतुर्थ, शामली।
- लेखाकार/सहायक लेखाधिकारी, विद्युत वितरण मण्डल, शामली।
- नॉटिस बोर्ड

संलग्न उपरोक्तानुसार

(राजेश तामर)

अधीक्षक अभियन्ता,  
विद्युत वितरण मण्डल,  
शामली





## पश्चिमांचल विद्युत वितरण निगम लि०

### ई-निविदा आंमत्रण सूचना

ई-निविदा के माध्यम से दिनांक 19.11.2024 को 12.00 बजे से पूर्व/तक आंगत्रित की जाती है जो उसी दिन समय 15.00 बजे ई पोर्टल पर खोली जायेगी। निविदा की अर्हता सम्बन्धी विस्तृत जानकारी/संशोधन अथवा निविदा खोलने की तिथि में विस्तार होता है तो इसकी सूचना ई टेण्डर वेबसाईट [www.etender.up.nic.in](http://www.etender.up.nic.in) व निगम की वेबसाईट [www.pvvn.org](http://www.pvvn.org) पर देखी जा सकती है। ई-निविदा संख्या: 45/2024-25, कार्य का विवरण : वि०वि०ख०प्र०शा० के कार्यक्षेत्र में रनिंग जमा योजना के कार्य। ई-निविदा संख्या: 46/2024-25, कार्य का विवरण : वि०वि०ख०द्वि०शा० के कार्यक्षेत्र में रनिंग जमा योजना के कार्य। ई-निविदा संख्या: 47/2024-25, कार्य का विवरण : वि०वि०ख०तृ०शा० के कार्यक्षेत्र में रनिंग जमा योजना के कार्य। ई-निविदा संख्या: 48/2024-25, कार्य का विवरण : वि०वि०ख०च०शा० के कार्यक्षेत्र में रनिंग जमा योजना के कार्य। ई-निविदा संख्या: 49/2024-25, कार्य का विवरण : वि०वि०ख०द्वि०शा० के कार्यक्षेत्र में जमा योजना के कार्य। ई-निविदा संख्या: 50/2024-25, कार्य का विवरण : वि०वि०ख०च०शा० के कार्यक्षेत्र में जमा योजना के कार्य। नि० सं० 45 से 48 तक धरोहर राशि 7000.00(प्रत्येक), नि० सं० 49 की धरोहर राशि 3500.00, नि० सं० 50 की धरोहर राशि 6600.00। अधीक्षण अभियन्ता, विद्युत वितरण मण्डल शामिल। हैल्प लाईन - 1800-180-3002 'राष्ट्रहित में बिजली बचाये'।

अधीक्षा अभियन्ता  
विद्युत वितरण मण्डल  
शामली

## STAYING OF SUPPORT

Stay prefer at angle 45° But not less than 30°

As per RESPO Norms -

(A) STAY SCHEDULE FOR LT/11 KV LINE (5229 kg Breaking Load)

S.No.	Name of Item	Unit	Qty	Rate	Amount
1	G.I. Stay Rod 16x1800 mm	No.	1	541	541.00
2	Stay wire 7/10 SWG (70kg/mm <sup>2</sup> quality) (453kg/km = 11m X 0.453 = 5kg)	kg.	5	72.15	360.75
3	Stay clamp with Bolt & Nut	No.	1	254.0	254.00
4	Bolt & Nuts and Washer	kg.	0.5	148.0	74.00
5	Grouting & Concreting (0.6x0.6x0.3 = 108)	cu.m	0.108	2660	287.28
6	Stay Loop Insulator	No.	1	25	25.00
				Rs.	1542.03

As per RESPO Rate - Say Rs. 1542.00

(B) STAY SCHEDULE FOR 33 KV LINE (7886 kg Breaking Load)

S.No.	Name of Item	Unit	Qty	Rate	Amount
1	G.I. Stay Rod 20x1800 mm	No.	1	1505	1505.00
2	Stay wire 7/10 SWG (70kg/mm <sup>2</sup> quality) (706kg/km = 13 X 0.706 = 10 kg)	kg.	10	70.82	708.75
3	Stay clamp with Bolt & Nut	No.	1	254.0	254.00
4	Bolt & Nuts and Washer	kg.	0.5	148.0	74.00
5	Grouting with Concrete (0.6x0.6x0.3 = 108)	cu.m	0.108	2660	287.28
6	Stay Loop Insulator	No.	1	25	25.00
				Rs.	2853.48

As per RESPO Rate - Say Rs. 2853.00

### GROUTING/CONCRETING OF POLE/STAY

(A) Grouting of PCC Pole 8.5 m Long (0.268 M<sup>3</sup>)

S.No.	Name of Item	Unit	Qty	Rate	Amount
1	Cement 30 G	Bag	0.85	345	293.25
2	River Sand	cft	4.55	25	113.75
3	Brick Ballast 3/4"x3/4"	cft	9.10	33.60	305.76
				Rs.	712.76

As per RESPO Rate - Say Rs. 713.00

(B) Grouting of PCC Pole 9.0 m Long (0.285 M<sup>3</sup>)

S.No.	Name of Item	Unit	Qty	Rate	Amount
1	Cement 30 G	Bag	1.0	345	345.00
2	River Sand	cft	5.353	25	133.82
3	Brick Ballast 3/4"x3/4"	cft	10.706	33.60	359.72
				Rs.	838.54

As per RESPO Rate - Say Rs. 839.00

(C) Grouting of 11 M STP Support (0.44 M<sup>3</sup>)

S.No.	Name of Item	Unit	Qty	Rate	Amount
1	Cement 30 G	Bag	1.2	345	414.00
2	River Sand	cft	6.423	25	160.57
3	Brick Ballast 3/4"x3/4"	cft	12.846	33.60	431.62
				Rs.	1006.19

As per RESPO Rate - Say Rs. 1006.00

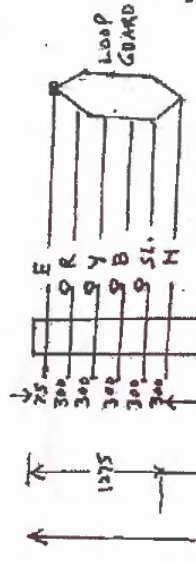
As per RESPO 8250/- Guarding Schedule



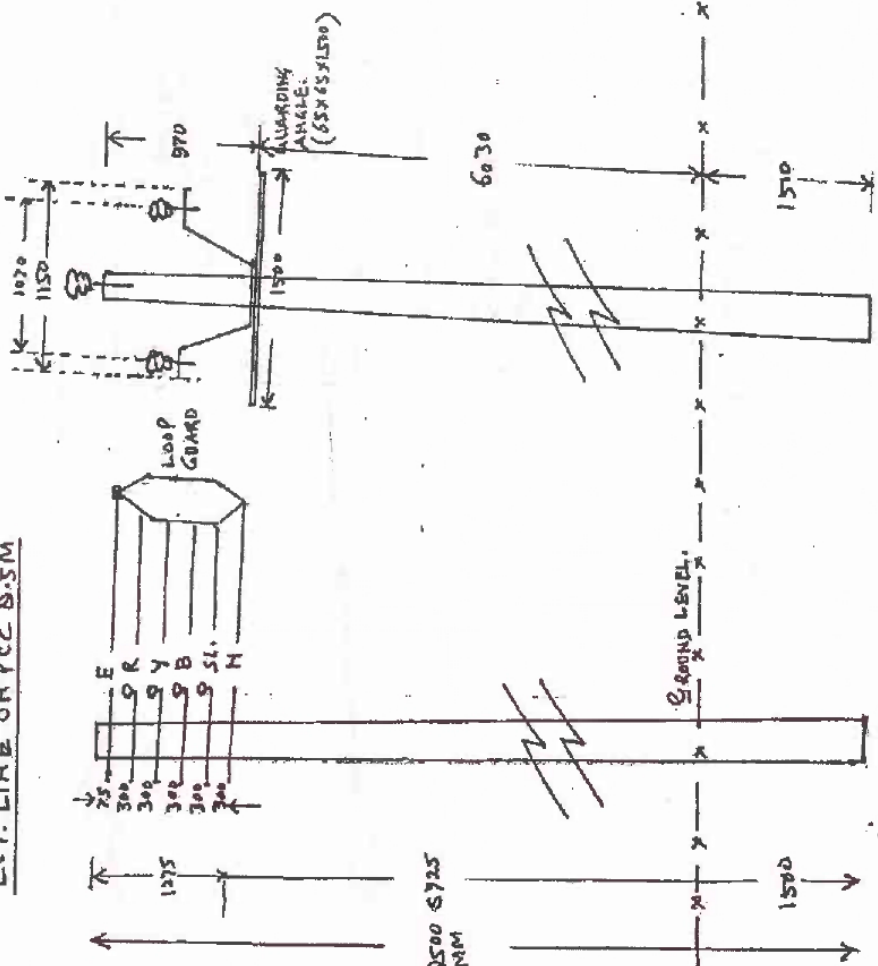




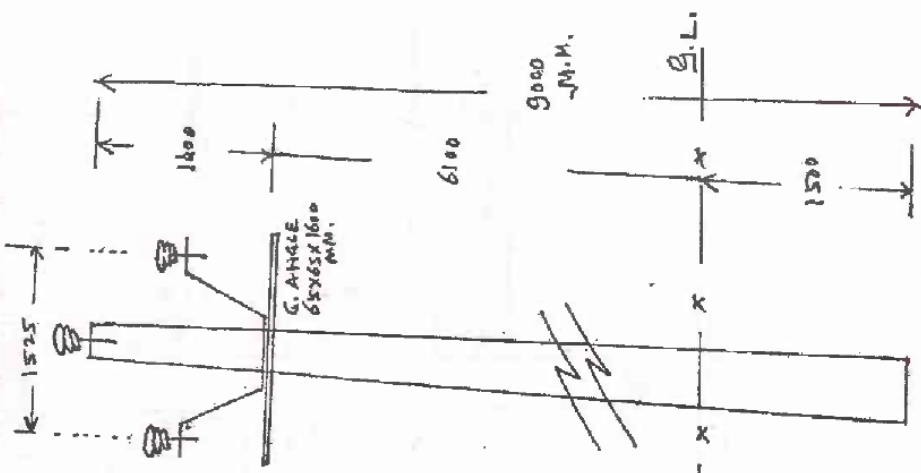
L-T. LINE ON PCC D.S.M



11KV SINGLE POLE ON PCC D.S.M



33KV SINGLE POLE ON G.M. P.C.



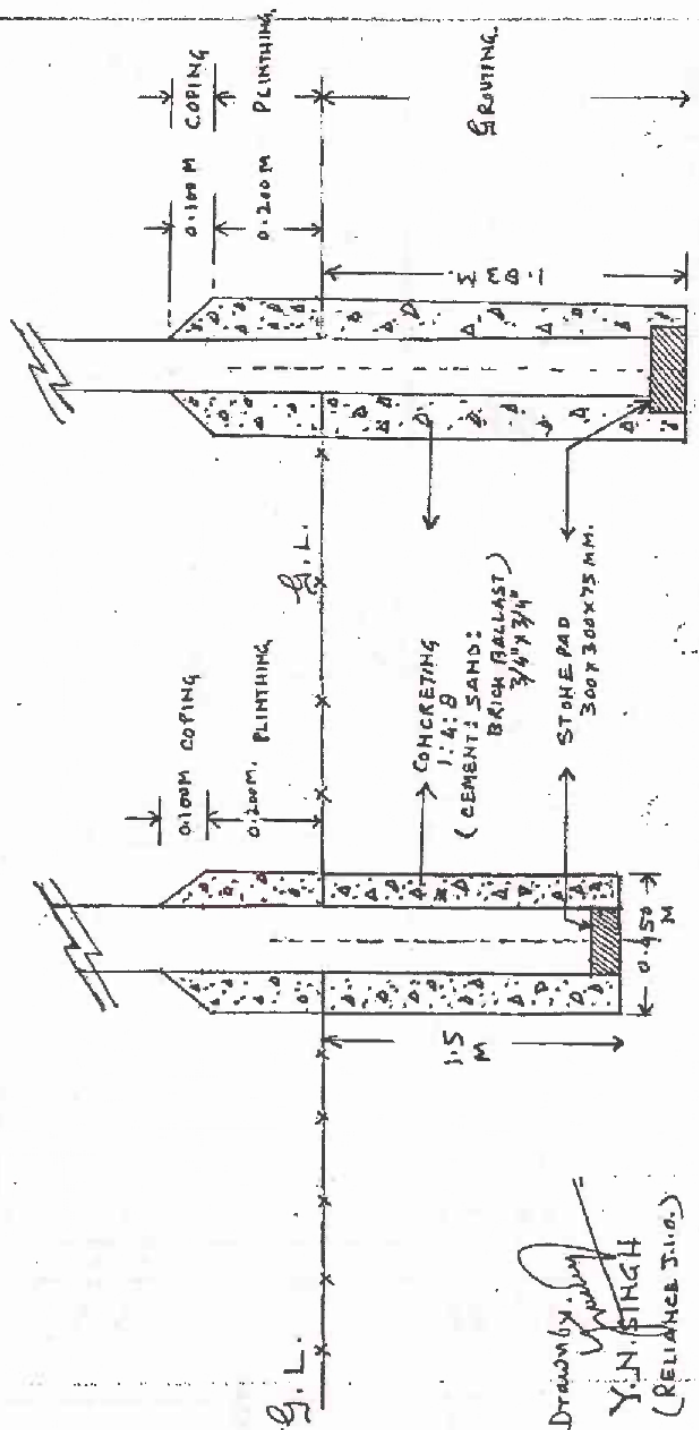
L.T. / 11KV / 33KV LINE ON PCC POLE.

Y. J. (11/4/11)

# GROUTING OF POLE (PIT SECTION 0.45 X 0.45 M X DEPTH 1/6TH)

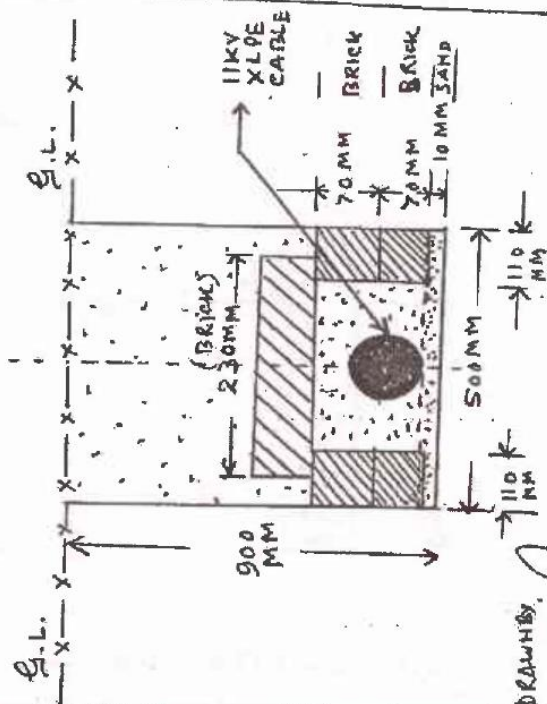
(PCC POLE 8.5M)

(S.T.P. 11M)



### LAYING OF SINGLE CIRCUIT CABLE

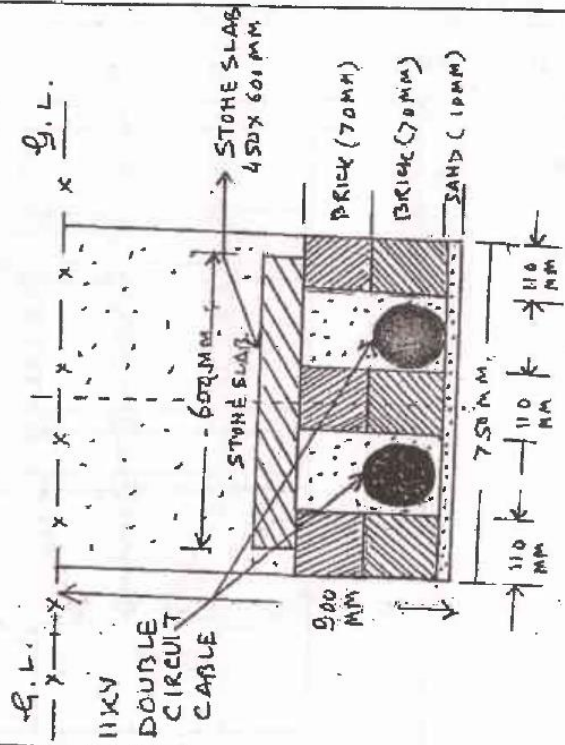
SIZE OF TRENCH — 0.5 M X 0.9 M.  
BRICK SIZE — 230 X 110 X 70 MM.



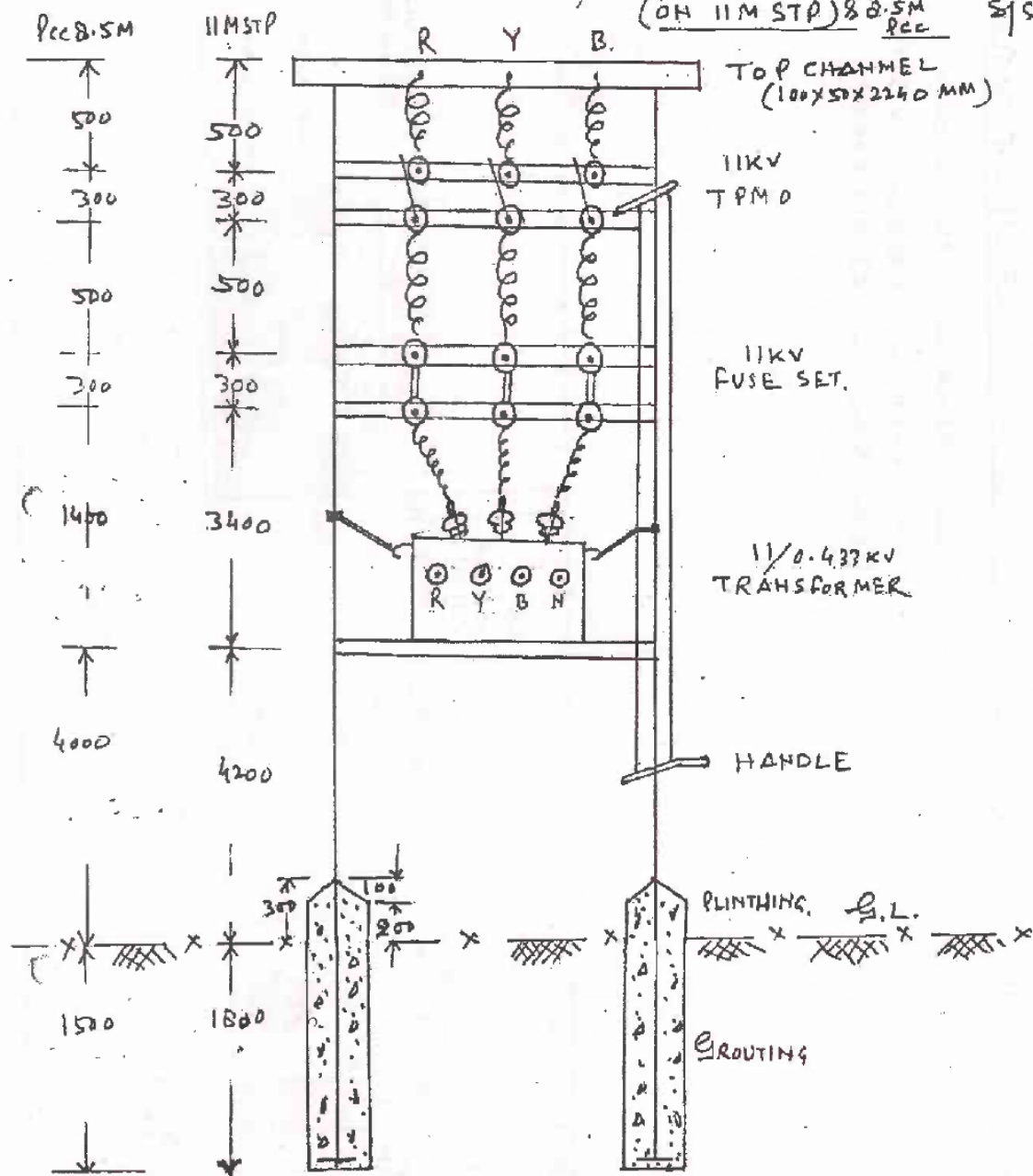
DRAWN BY  
Y. N. SINGH  
RELANCE JIO

### LAYING OF DOUBLE CIRCUIT CABLE

SIZE OF TRENCH — 0.750 X 0.900 M.  
STONE SLAB — 450 X 600 MM X 50 MM.  
BRICK SIZE — 230 X 110 X 70 MM.



SINGLE LINE DIAGRAM OF 11/0.433 KV 25 KVA POLE MOUNTED  
 (ON 11 M STP) 80.5 M P.C.C. S/S.



P.C.C. 8.5 M LONG → Distance will be —  $500 + 300 + 500 + 300 + 1400 + 4000 + 1500 = 8500 \text{ MM.}$

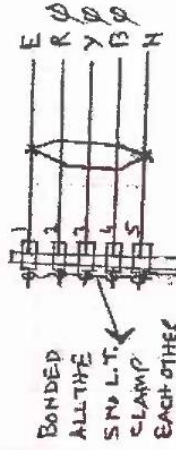


(1)

# EARTHING OF LT./11KV/33KV SUPPORTS.

## 11KV/33KV SUPPORT EARTHING SYSTEM.

3 $\phi$  5 WIRE L.T. LINE



BONDED ALL THE 3 $\phi$  G.I. PIN WITH G.I. WIRE

G.I. WIRE 6SWG USED AS A EARTHWIRE

G.L.

16MM HOLE

40MM

60MM (DBL)

M.S. FLAT 40x5 MM 120MM LONG

M.S. ROD 20MM x 250MM

250MM

250MM

250MM

250MM

250MM

250MM

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FLINTU

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GROUTING OF SUPPORT

1:4:8 RATIO

(CEMENT-SAND-BALLAST)

DRAINING

M.S. ROD 20x250MM SIZE

20x250MM SIZE

20x250MM SIZE

20x250MM SIZE

20x250MM SIZE

20x250MM SIZE

20x250MM SIZE

20x250MM SIZE

20x250MM SIZE

20x250MM SIZE

20x250MM SIZE

20x250MM SIZE

20x250MM SIZE

20x250MM SIZE

20x250MM SIZE

20x250MM SIZE

DRG. of M.S. ROD (20x250MM SIZE)

DRG. of M.S. ROD (20x250MM SIZE)

### 1.3 Erection of Supports

Normally 1/6th. of the support shall be buried in the ground. The P.C.C. pole shall be fixed on a stone pad of size 300x300x75 mm. In case of rail support the size of stone pad will be 400x400x125mm Steel tubular poles shall be fixed on base plate only.

### 1.4 Grouting of Supports

P.C.C. and Steel tubular supports shall be grouted in cement concrete in the ratio of 1 : 4 : 8 (1-cement, 4-fine sand, 8-brick ballast of 40 mm size). The concreting of the poles shall be done around the supports and over all diameter of the grouting including support will be 45cm and the grouting height shall be from the bottom supports to a height of 10 cm below the ground level. The plinthing of the pole shall be done from top of base concrete up to a height of 30 cm above ground level (i.e 40 cm total) with 1:4:8 cement concrete (1 cement 4 coarse sand and 8 stone grit of 20 mm nominal size). The plastering of plinth shall be done from the top of the plinth upto 10cm below the ground level in cement and fine sand mortar in a ratio of 1:4 (1 cement and 4-fine sand). The excavated portion of the ground should be filled back with earth and consolidated properly and excess earth shall be removed. The proper curing of the plinth shall be done by the contractor. The rail support shall be grouted and plinthed in 1 : 4:8 cement (1 cement, 4 C-sand & 8 stone grit of 20mm nominal size) in the same manner as mentioned above.

### 1.5 Painting of Supports

All the supports will be painted with synthetic enamel paint of approved quality as per direction of E/I. with following details.

#### 1.5.1 P.C.C. Pole

These poles will be painted with suitable enamel paints in strips of 20cm with white and P.O. red enamel paints in alternate layers upto a height of 1.00 mtr above plinth level. The plinth shall be white washed with two coats of lime colour.

#### 1.5.2 Steel Supports For H.T./Composite Mains

The steel supports will be painted with one coat of red oxide paint of approved quality in entire length above ground level. The whole pole will be painted with two coats of Aluminium paint of approved quality in case of L.T. supports and from the top upto a depth of 45 cm. below H.T. cross arm/guarding arm in case of H.T. supports. The rest top part of the H.T. support will be painted in two coats of synthetic enamel P.O. red colour. These poles will be further painted in two coats in strips of 20 cm above plinth level upto a height of 1.00 mtr. with alternate strips of P.O. red enamel paint and white enamel paint. The plinth shall be white washed with two coat of lime colour.

#### 1.5.3 Steel Pole For L.T. Line

The supports will be painted in one coat of red oxide paint of approved quality above ground level and will be further painted in two coats of approved quality of aluminium paint. These poles will further be painted with P.O. red enamel paint in two coats of alternative strips of red & white enamel paint of 20 cm. above plinth level upto a height of 1.00 mtr. The plinth shall be white washed with two coat of lime colour.

#### 1.5.4 Numbering of Poles

All supports will also be numbered with black synthetic enamel paint of letter size 75x 12mm. in a circle of 15cm in a yellow synthetic enamel paint at a height of 2.0M from ground level.

### 2. Pole Clamps

These shall be made of M.S. flat of size not less than 50x6mm complete with nut bolt of size not less than 16 mm in dia washer and insulator bolt hole etc. Suitable C.I. packing piece as per direction of E/I. Clamps made of 75x10 mm M.S. flat shall be used for H.T. cross arm and guarding channel in steel tubular poles and rail supports. The clamps shall be painted with red oxide primer before erection and finally painted with two coats of aluminium paint. The earth wire clamp shall be fixed below 75mm from top and insulator clamp at 200mm below the earth wire clamp for L.T. lines. The clamps shall be made as per drawing and direction E/I.

### 3. Cross Arms for H.T. Lines :

The straight cross arms shall be made of M.S. channel of size not less than 100x50mm. The length of C.A. shall not be less than 1.380 M. The 'V' shape C.A. shall be made of . single piece of M.S. channel of size not less than 75 x40 mm (5.7kg/ m) and shall have provision to accommodate 2 insulators with spacing of 1220 mm between the conductors. The M.S. channel will be in one length and shall be suitably fabricated and welded at all bending points. The sample shall be got approved by E/I. The channel C.A. moulded at the top for fixing G.I. Pin shall not be less than 150 mm. in length. The height of both ends shall be 460 mm from bottom & width of bottom where it is fixed with the pole shall be 350 mm. The guarding channel shall be of 75x40 mm (5.7 kg. per meter) size 2240 mm in length for carrying the guard wire so that it runs not less than 480mm beyond the outer most bare conductor. The size of nut bolt used for fixing the cross arms and guarding channels etc. shall not be less than 16 mm india. The arms shall be painted with red oxide primer before erection and finally painted with 2 coats of P.O. red enamel paint.



#### 4. F-Bracket

It shall be made of M.S. flat of size 50x8 mm. The upper portion of F-Bracket shall be bent at right angle upto a length of 60 cm. The lower arm of F-bracket shall be welded properly at a distance of 75mm from top arm. Both the arms shall have holes in the centre of 22 mm dia to accommodate 11 KV pin. The vertical length shall be 385mm. with 2 Nos. holes of 18mm dia and 100mm apart from 25mm from bottom.

#### 5. E. Bracket

It shall be made of 50x8 mm M.S. flat of vertical length 200mm with right angles bent on both sides upto a length of 60 mm. The centre arm shall be welded properly. All the three arms shall have holes in the centre of 22 mm. dia to accommodate 11 KV Pin.

#### 6. Shackle Strips

It shall be of galvanized steel of 230x32x3 mm/355x 40x4 mm size with 18 mm dia hole for shackle insulator pins with 155x16 mm or 1015x16mm G.I. bolt nuts and washers as per actual requirements and directions of E/I.

#### 7. L. T. Insulators

The conductor shall be supported on shackle type insulators size 75 x 90 mm or 100 lx 115 mm as required. The insulators shall be fixed directly on clamps. The minimum size of shackle insulator shall be 90/100 mm in dia and 75/115 mm high. The shackle insulator shall be complete with M.S. bolt nuts and washer etc. confirming IS 1445-1966. The size of the insulators to be used shall be as per direction of E/I. The dia of bolt should not be less than 16 mm.

#### 8. 11 KV Disc/Pin Insulator

It shall be of standard design as per ISS. The DISC type 11 KV insulator shall be of ball & socket type and of 7000kg mechanical strength.

#### 9. Stay Set

Normally the stay set shall be erected 3.50 mtr. away from the pole (as per site (requirement this distance may vary) complete with 16mm. dia and 1.80M. long G.I. Stay ~rod, 152x 152x6mm G.I. anchor plate, G.I. thimble, M.S. stay clamp of 50x6 mm M.S. flat, stay insulator 75x125 mm., 7/10 SWG stay wire on L.T. line supports, H.T. supports and composite main supports as per direction of E/I. The grouting of stay rod shall be done in cement concrete of size 600x600 mm continued upto 300 mm in the ratio of 1 : 4:8 (1-cement, 4-fine sand, 8 1st. class brick ballast of 40mm size) including fixing of stay clamp, bolt & nuts of 65x16 mm dia binding nozzle, tensioning of stay wire etc. complete in all respect as per direction of E/I and drawing.

#### 10. Strut Stay

A strut shall generally consist of a support of a suitable size and type. It shall be chamfered (in case of P.C.C. pole) at the top so as to rest on the pole squarely and shall be secured through bolt nut of 16 mm dia chuck nut and washers with the help of 2 Nos. 50x6 mm M.S. clamp. It shall be buried in ground to a depth not less than 1/6th of length of the strut support in manner as the pole or actual site requirement as per direction of E/I. At the G.L. the strut shall be at a distance not less than 1.8 mtr from the pole or as per site requirement, grouting, plinthing, plastering painting shall be done as being adopted in case of various type of supports.

#### 11. Fly Stay

Fly stay shall consist of a support of suitable size & type and shall be grouted in the same manner as the PCC/Steel pole grouted and specification of pole including stay set (as specified) with fixing of M.S. flat clamp 50x6 mm fly stay wire shall be of size 7/10 SWG, G.S. wire with a turned buckle of 16 mm dia. and stay insulator of not less than a size of 75 x 125 mm.

#### 12. Earthing of Poles :

Earthing shall generally be carried out in accordance with the requirement of I.E. rule-1956 amended from time to time relevant regulation of the Electricity Supply Authority. The U.P.P.C.L. is adopting the following method of pole 3.00M from support duly jointed with 7/16 G.I. wire running horizontally below 60 cm. from ground level shall be connected with strip of size 50x6 mm with hole of 14 mm to be welded and will go upto the earth wire of overhead line continuously through 15mm dia (0.961 kg./m) G.I. Pipe 2.00m long suitably clamped with 3 No. clamps with the support and the clamp will be made of 20x3 mm M.S. flat. The earth wire shall be connected with rod by nut bolt & washer arrangement.

#### 13. Conductor

Aluminium conductor steel reinforced (ACSR) as per IS 398-1961 with the latest amendment shall be used. The minimum size of ACSR conductor shall be of code name 'WEASEL' & maximum size of conductor shall be 'DOG' the binding of conductor with insulators shall be done with 12 SWG soft aluminium conductor with 5 rounds of binding in the grooves of insulators and 40mm on both sides of insulator. The earth/guard wire shall be of G.I. 6 SWG and shall have required breaking strength and current carrying capacity to ensure rendering dead the line without risk of fusing of guard wire. It should be connected with earth at each point at which its electrical continuity is broken.

The conductor shall be strung properly and care will be taken to see that there is no kinks in the conductors. Joints in the conductors must be gripped securely. While stringing conductor sufficient length must be kept at shackle termination for making jumpers. The jumpers shall be so made as to prevent occurrence of fault due to winds or birds. The parallel groove clamps may be preferred to binding of conductors at jumpers locations. Jumpers will normally be of same materials as the line



of E/I. The grouting, plinthing, plastering and painting of all the above structures will be in the same manner as already specified for respective type of supports.

#### 17. Four Pole Structure

The pole will be grouted plinthed plastered and painted in the same manner as already specified for respective types of supports at a distance 2050 mm centre to centre. Two Nos. Rails pieces of same section as the supports and approx. 2200 mm will rest on the top of the Rail duly fabricated and bolted with the channel size 100x50 mm (7.9kgf 111.) already fixed. One No. Rail pieces of same section and length 2350 mm will be placed on both the Rail pieces in the centre and fastened by means of 4 'u' type clamps made of 50x6mm M.S. flat for providing chain tackle for loading, unloading of transformer.

Two Nos. Rail pieces of same section and length about 1900 mm duly fabricated will be fixed on 75x75x6 mm M.S. angle iron pieces of suitable length already bolted with vertical erected Rails at a height not less than half of the Rail length above ground level and balance 2 Nos. Rails pieces of 2350 mm length will rest on 1900 mm length Rail pieces shall be fixed in the same manner as the top Rail pieces.

#### 18. Transformer Plinth

The outer size of plinth excluding plaster will be 2x2x1.5 mtrs. and 100 mts high above ground level.

The trench will be excavated 30 cm. deep and 65 mm in width plinth will be made of 35 cm thick wall of 1st Class brick work in 1:6 (1 cement, 6-fine sand) mortar of height 45.5 cm over 7.5 cm thick cement concrete in the ratio 1 :6: 12 where 1 cement, 6 part fine sand and 12 parts 40 mm nominal size OBB. super structure of height 57 cm. will be made of 35cm thick all of 1st. Class brick work in the same mortar. The open space (duct) will be filled with brick bats, 8 cm thick cement, concrete floor in the ratio 1 :2:4 will be made over 12 cm thick cement, concrete flooring in the ratio 1 :4:8 The whole of the plinth shall be plastered in the mortar of ratio 1:4 cement and fine sand.

Two Nos. M.S. channel (size 75 x 40mm) 1.50 meter length duly welded or bolted with 6 Nos. M.S. hold fast will be provided on which transformer will rest. Four Nos. stoppers are to be provided with M.S. channels to avoid slipping of Transformer. The above construction will be made in accordance with specifications of U.P. P.W.D. and as per direction of Engineer-In-Charge.

#### 19. Fencing Plinth and Providing Flat Bricks Soling

The trench will be excavated 30 cm. deep and 30 cm wide. The plinth will be constructed up to 15 cm above the ground level with 23 cm. thick wall in the 1st. Class brick work in mortar 1:6 (1 cement, 6 fine sand) over 75mm thick cement concrete in the ratio 1 :6: 12 (1 cement, 6 fine sand and 12 OBB of 40 mm nominal size). This will be plastered in the mortar of cement and fine sand in the ratio 1:4 (1 cement, 4 fine sand). The remaining portion of cage will be covered with flat brick soling over a base concrete bf 1 :6: 12 as mentioned above and cement pointing shall be done in the ratio of 1:2 1 Cement and fine sand.

#### 20. Transformer/Sub-Station Earthing :

Earthing shall generally be carried out in accordance with the requirement of Indian Electricity Rules, 1956 as amended from time to time and relevant regulations of electric supply authority concerned. A.G.I. plate of 900x900x6 mm size buried vertically for earthing with its top atleast 6 meter below the ground level or water level which ever comes earlier with two numbers G.S. wire of size 7/8 SWG as per direction of E/I connected with plate by means of lugs and G.I. Nut bolts & washer from earth plate to the neutral body of the transformer through G.I. pipe 2.00 Mts. in length of 40 mm dia (3.29 kg/m) suitably clamped by M.S. flat of size 20x3 mm at two places with support and the lightning arrestor, distribution board/L.T. A.C.B. as per direction of E/I. The earth plate shall be covered around by 150 mm thick alternate layers of salt and charcoal.

#### 21. 11 K.V. T.P.M.O.

The switches are 3 pole hand operated single break without earthing contact plate and suitable for vertical mounting and double pole/four pole structures & are capable of quick, simple, effective and simultaneous operation and comply with ISS-1818-1972.

##### Specifications

Nominal system voltage	11 KV
Rated Voltage	12 KV
Rated Frequency	50 c/s
Rated current	200 Amp.
Rated max. duration of short ckt.	3 Second
Rated peak short ckt. Current.	100 KV

The T.P.M.O. switch should be capable of standing with the mechanical load and electro magnetic forces without effecting the operation and current carrying properties.

The switches complete with the operating mechanism should not come out of their own enclosed position due to effect of gravity, vibration, reasonable shocks. Their construction should be such that they do not open under the influence of the short circuit current. It should be provided with locking arrangement at the accessible to operator.

## Particulars of the Main Components of 11 KV T.P .M.O.

Insulator pins	Mild steel forged (Not welded)
Insulator cap	Cast iron
Jaw (I) strip	Rolled/extruded electrolytic grade copper.
(ii) base	Cast iron
Blade	Part galvanised mild steel and part rolled/extruded electrolytic grade copper flat and duly champhered.
Bushes	Brass
Angle iron base of fixed contacts	75x75x6mm
Main galvanised iron pipe for phase coupling bar	48mm inner dia (4.18 kg/m)
Operating rod galvanised Iron pipe.	15mm inner dia (0.961 kg/m)

### 22.11 K.V. D.O. Fuse Set

The fuse set suitable for 11000 volts, 3 phase 50 cycles second A.C. supply are required for the protection of outdoor transformers at heights not exceeding 10 meter.

The fuse set is complete with Insulators and fuse mounts suitable for being mounted on double pole structure and generally confirm to B.S.S. 2692/1956 and have a 3phase rupturing capacity of not less than 150 MVA at 11 KV. The fuses are suitable for operation under all weather conditions including 100% humidity and maximum ambient temperature of 50°C. All the exposed metallic parts of the fuse set is either non ferrous or galvanised steel. Fuses in which fuse elements at side can be replaced at site are mostly preferred.

The fuses are provided with suitable means for the indication of the sound and blown off fuses. The suitable size of fuse elements of pure silver for ensuring a minimum cross section for giving rapid cut-off on high fault current shall be used for different ratings of distribution transformers, and be capable of with standing extreme thermal shocks. The contacts will be fabricated from phospher bronze and all current carrying parts should be copper/copper alloy heavily tinned. Exposed metallic parts including bolts and nuts should be either non ferrous or heavily coated hot dip galvanised steel and all the bolts wherever they fall into current carrying path should be of brass with phospher bronze washer.

### 23. Distribution Boards

The distribution board shall be suitable for out door installation which shall be made of 14 SWG M.S. black sheet duly mounted on angle iron of size 35x35x5 mm to with stand rough usage and weather changes. The size of distribution board shall not be less than 2.00 M in height, 1.20M. in width and 0.60M in depth. Down ward sloping canopy shall be fitted at the top to avoid accumulation of rain water. The board shall employ double hinged doors having locking arrangement as usually provided in the steel cup board at the front and at the rear to provide complete protection from atmospheric conditions and shall be so constructed that they can be removed completely to facilitate cable jointing. A metal sheet shall be easily removable to have access for the cable. The pillar shall have adequate ventilation fitted with wire mesh of suitable size as per direction of E/I at the top and bottom on each wall for Inlet and exhaust of air. All the vent holes shall be provided with sloping hoods to prevent the rain water from going inside. The shell section shall be cleaned with H2-SO4 Acid and coat of phospheting be applied and painted with a coat of anticorrosive primer. The coat of grey synthetic enamel be given duly stoved. The board shall have earthing terminal readily accessible duly identified by earth sign. Danger sign plate shall be accomplished in both the sides. One number lamp holder with plug and fuse in circuit be placed on bottom portion below neutral bus bars.

A three pin socket should also be provided to check continuity of each phase. Bus bar of cold rolled copper (Electrolytic) high conductivity duly tinned or silver plated shall be used for phase and neutral and shall be placed in horizontal position in such a way so that in case of break down of any cut out the melted metal does not damage lower bus bars.

The bus bar cross sectional area shall be of size 60x 10 mm or equivalent for phases in adequate length and the neutral bus bar cross sectional area shall be 50x6mm or equivalent x-section.

There are three system of links which follows :

Solid copper links of suitable and standard size mounted on porcelein fuse carriers which is easily replacable from the base contact of incoming circuits.

Solid link bars are mounted on incoming circuit terminals and fitted with nuts and bolts without using any insulating cover but all the copper bar plates are taped by the P.V.C. tape of Red, Yellow, Blue and Black colour totally.

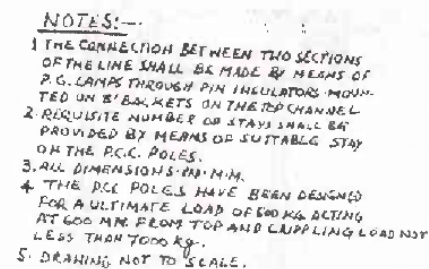
In this system from total number of poles anyone pole of two can be used for Incoming circuit which is in the middle as and when required Pole indicates circuits.

All the aforesaid three systems of incoming circuits depends on the utility and or nature of distribution system adopted. Each circuit way shall be provided with the porcelein rewirable type Henley pattern confirming to the IS-2086-1983. All the contact parts (male or female) shall be made of cold rolled electrolytic copper and brass alloy and their surface shall be smooth and even, so that there is absolute no air gap between the contacts. The distribution pillar shall be mounted on suitable size of masonry plate-form with the help of Rag bolts of suitable size as per direction of E/I.

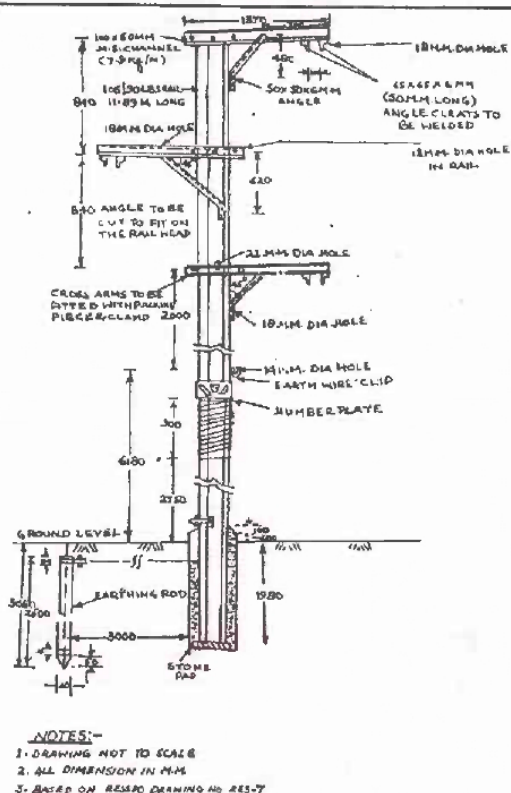
### 24. Distribution Pillar Frame Suitable for Indoor Installation

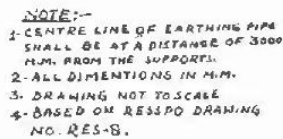
The frame shall be of size 2.20x 1.25cm made of 75x75x8mm angle iron which shall be grouted up to a depth of 20 cm. with the help of horizontal angle iron supports size 75x75x8 mm of 1.20 mtrs. length and in the floor also upto a depth of 30 cm.





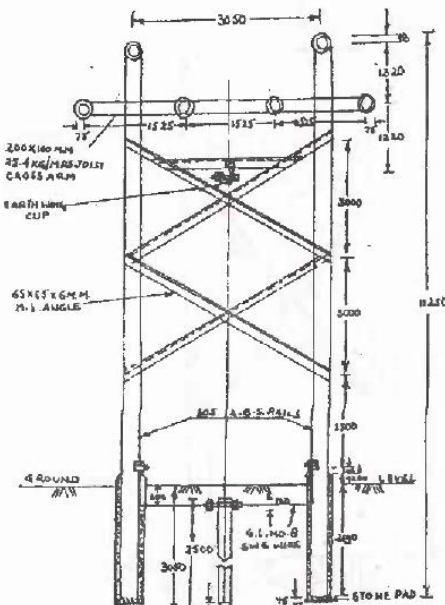
DISTRIBUTION DESIGN &  
STANDARDISATION ORGANISATION, LKO.  
U.P. POWER CORPORATION, LTD.  
SECTION & TERMINAL POLE  
FOR 11 KV LINES FOR URBAN  
ELECTRIFICATION





DISTRIBUTION DESIGN &  
STANDARDIZATION ORGANISATION, LTD.  
U.P. POWER CORPORATION, LTD.  
33KV DOUBLE CIRCUIT LINE ON  
50/105 LBS. RAIL FOR URBAN  
ELECTRIFICATION.

DRAWN BY J. P. R. C. K.	RECOMMENDED BY M. L. J.	APPROVED BY M. J.
CHECKED BY M. A. K.	DRG. NO. DD-850-23	



NOTES:-

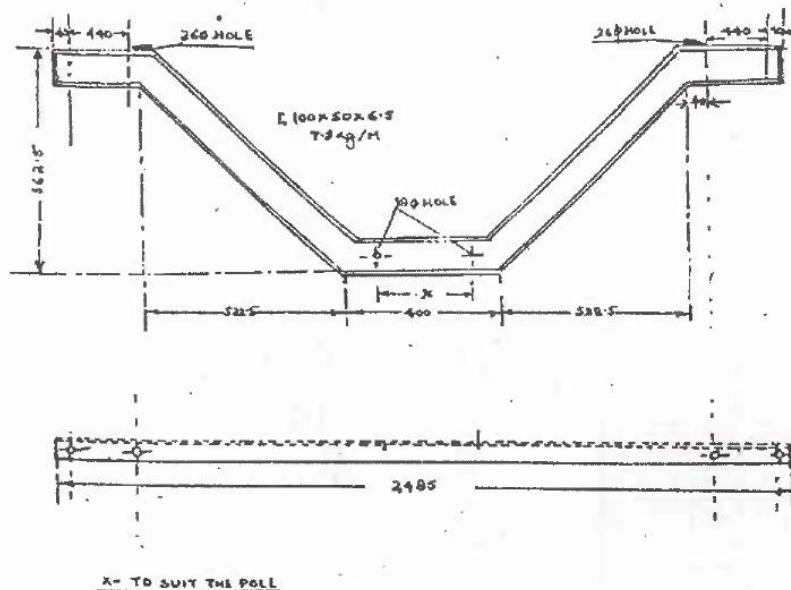
1. ARTICULATING DEVICE AND ANGULAR JOINTS ARE NOT KNOWN IN THIS DRAWING PRINCIPLE SHALL BE SAME AS SHOWN FOR OTHER SUPPORTS.
2. THE TWO CONDUCTORS SHALL BE CONNECTED THROUGH AN INSULATING JOINT.
3. THE CONDUCTORS ON THE CRABEARS SHALL BE CONNECTED THROUGH PM INSULATORS PROVIDED ON CRABEARS.
4. POSITION OF CRABEARS ARE NOT SHOWN IN THIS OR THERE MAY BE SUFFICIENTLY FURTHER SPACING.
5. CENTRE LINE OF SPANNING RAIL SHALL BE AT A DISTANCE OF 100 MM FROM THE SUPPORTS.
6. ALL DIMENSIONS IN mm.
7. DRAWING NOT TO SCALE.
8. BASED ON RESPOND DRAWING NOTES-10
9. CONNECTION SHALL BE AS SHOWN FOR OTHER SUPPORTS.

DISTRIBUTION DESIGN & STANDARDISATION ORGANISATION, LKO.

U.P. POWER CORPORATION, LTD.

SECTION POLE FOR 55KV DOUBLE  
CIRCUIT LINE FOR URBAN  
ELECTRIFICATION.

DESIGNED BY A. FRASER	RECOMMENDED BY M. A. E.	APPROVED BY M. E.
CHECKED BY M.	DRG. NO. DD-60-25	



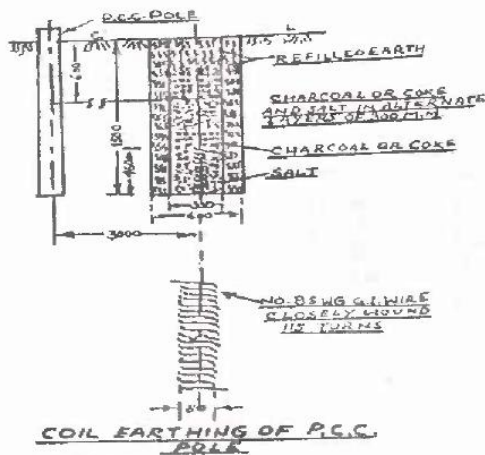
SCALE 1-NOT TO SCALE  
ALL DIMENSIONS IN M.M.

33 KV LINE V BRIDLING  
CROSS-ARM

DRG NO.. RES-26



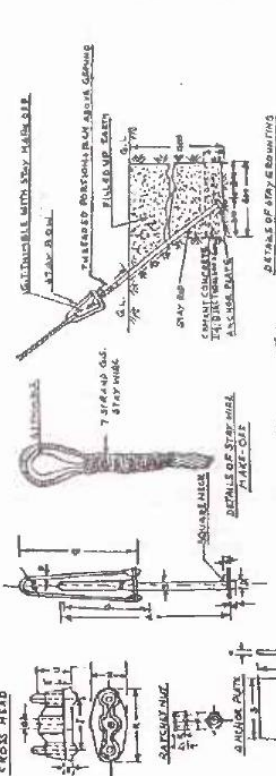




COIL EARTHING OF P.C.C. POLE

- NOTES:-  
 1- ALL DIMENSIONS IN MM  
 2- DRAWING NOT TO SCALE  
 3- BASED ON RESPO DRG. NO. RES-15

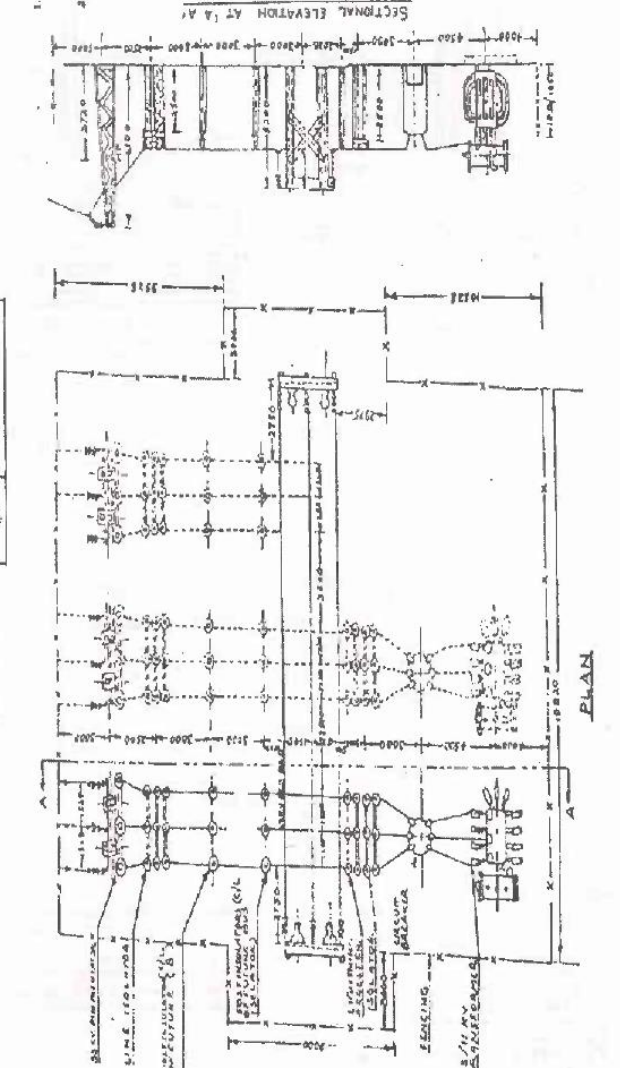
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COIL EARTHING OF P.C.C. POLE			
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CHARGE:	BY:	BY:	
CHECKED BY:	DRG. NO. DD&SO-28		
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DISTRIBUTION DESIGN & STANDARDISATION ORGANISATION, LKO			
U.P. POWER CORPORATION, LKO			
M.S. STAY ROD AND STAYING ARRANGEMENT AND GROUTINGS			
DRAWN BY:	RECOMMENDED BY:	APPROVED BY:	
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CHECKED BY:	DRG. NO. DD&SO-31		
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NOTES:-			
1- ALL DIMENSIONS IN MM UNLESS STATED OTHERWISE			
2- DRAWING NOT TO SCALE			
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- NOTES:-
1. THE POSITION OF COIL EARTH RODS SHALL BE AS SHOWN IN THE DRAWING. THE DISTANCE BETWEEN TWO ADJACENT RODS SHALL BE 3000 MM.
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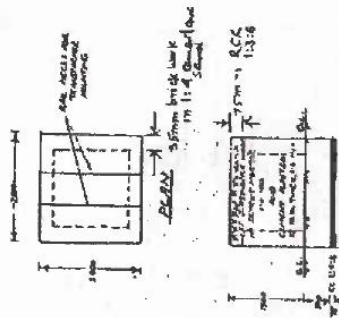
COIL EARTHING OF P.C.C. POLE

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U.P. POWER CORPORATION, LKO			
COIL EARTHING OF P.C.C. POLE			
DRAWN BY:	RECOMMENDED BY:	APPROVED BY:	
CHARGE:	BY:	BY:	
CHECKED BY:	DRG. NO. DD&SO-28		
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DISTRIBUTION DESIGN & STANDARDISATION ORGANISATION, LKO			
U.P. POWER CORPORATION, LKO			
COIL EARTHING OF P.C.C. POLE			
DRAWN BY:	RECOMMENDED BY:	APPROVED BY:	
CHARGE:	BY:	BY:	
CHECKED BY:	DRG. NO. DD&SO-28		
46			

DISTRIBUTION DESIGN & STANDARDISATION ORGANISATION, LKO			
U.P. POWER CORPORATION, LKO			
COIL EARTHING OF P.C.C. POLE			
DRAWN BY:	RECOMMENDED BY:	APPROVED BY:	
CHARGE:	BY:	BY:	
CHECKED BY:	DRG. NO. DD&SO-28		
46			

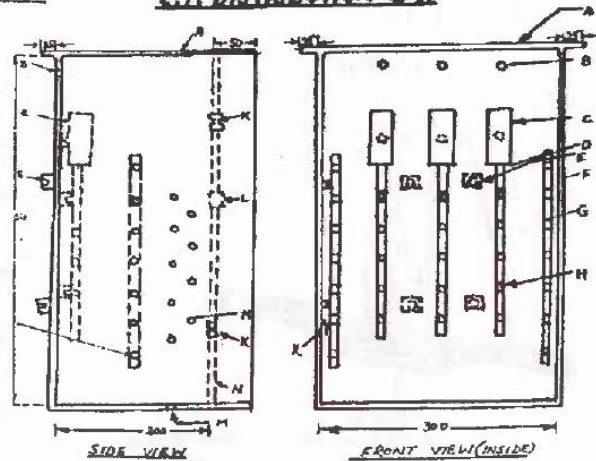
DISTRIBUTION DESIGN & STANDARDISATION ORGANISATION, LKO			
U.P. POWER CORPORATION, LKO			
COIL EARTHING OF P.C.C. POLE			
DRAWN BY:	RECOMMENDED BY:	APPROVED BY:	
CHARGE:	BY:	BY:	
CHECKED BY:	DRG. NO. DD&SO-28		
46			



RURAL/URBAN ELECTRIFICATION  
SECOND-DEGREE CATERING  
U.P. STATE ELECTRICITY BOARD

LAY OUT FOR 110 KV -  
400/630 KVA TRANSFORMER  
DYNALCO RES-4P  
JULY 1971 - SUB STATION I  
TRANSFORMER ENCLOSURE WITH JUNCTION BOX

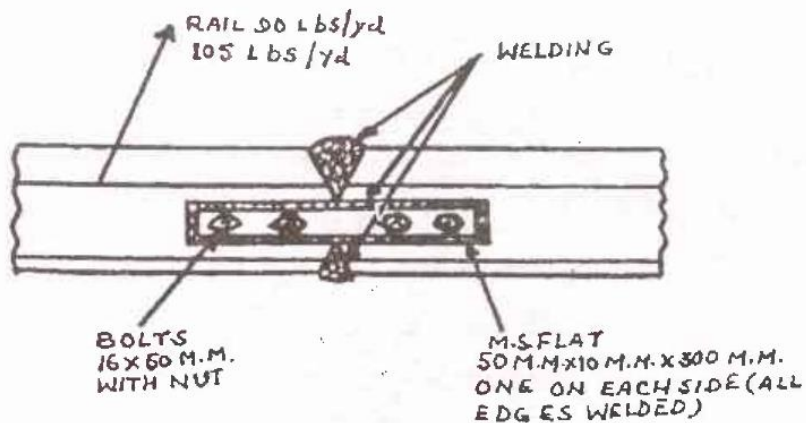
POLE MOUNTED  
L.T. DISTRIBUTION BOX



ALL DIMENSIONS IN MM

- (1) FIBER GLASS BOX BODY
- (2) INLET HOLES TO MAMP
- (3) M L B 63 APAS (A.M.S)
- (4) DRUG BUS BAR JAMS ACCUMINUM SIZE 2X5.75 IN.  
WITH HOLES AND UNDETACHABLE SCREWS
- (5) FIBER GLASS SUPPORT MOUNTED WITH THE BODY  
WITH EMBEDDED STUDS.
- (6) METAL BUS BAR ALUMINUM SIZE 1/2 X 5.75 IN.  
THICK AND UNDETACHABLE SCREWS
- (7) NINGS (2 NER)
- (8) IGNITION DEVICE FOR FRONT COVER
- (9) HOLES 3 MAMP FOR OUTGOING LABS (ON SIDES &  
BOTTOM)
- (10) FRONT COVER (FIBER GLASS JAM)

RETRACED  
DPG-ND-DD 250-71



DISTRIBUTION DESIGN & STANDARDISATION ORGANISATION LUCKNOW		
U.P. POWER CORPORATION, LTD.		
WELDED JOINT OF RAILS		
DRAWN BY:- SD	RECOMMENDED BY:- SD. EE	APPROVED BY:- SD. SC
CHECKED BY:- SD. AE	DRG. NO. D DR-SC-48 RETRACED	

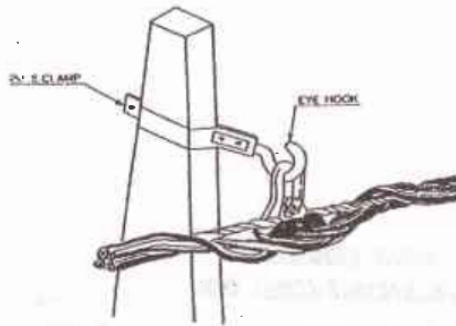


FIG. 2(a)

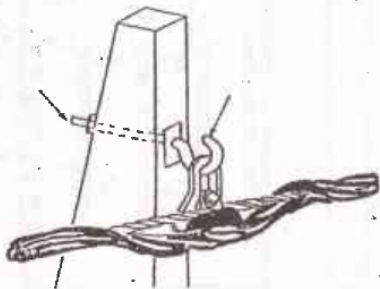


FIG. 2(b)

दो तरह के आई-हुकों सहित सस्पेंशन क्लैम्प की  
प्रियत चित्र 2(क) और चित्र 2(ख) में दर्शात

FIG. 2(a) AND 2(b) SHOWING THE SUSPENSION CLAMP  
IN POSITION WITH TWO TYPES OF EYE HOOKS.

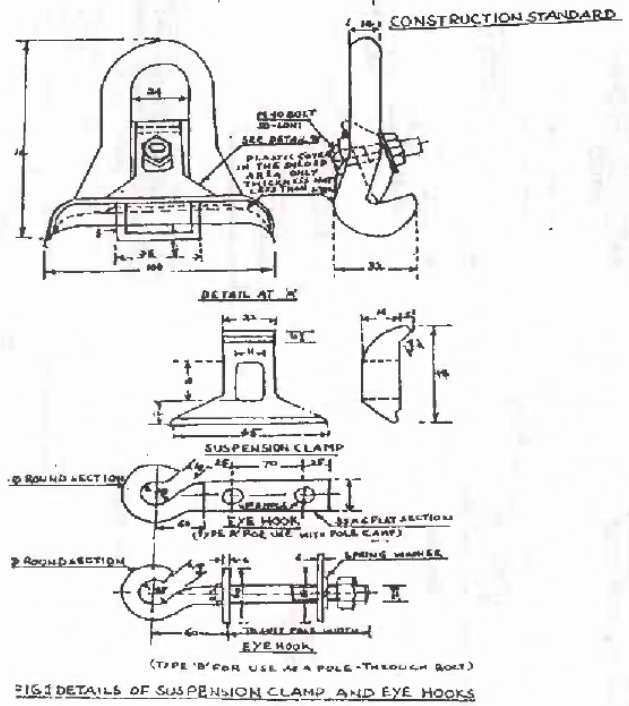


FIG. 1 DETAILS OF SUSPENSION CLAMP AND EYE HOOKS

ALL DIMENSIONS ARE IN MM  
DRAWING NO. 50-72(G)  
RETRACTED.

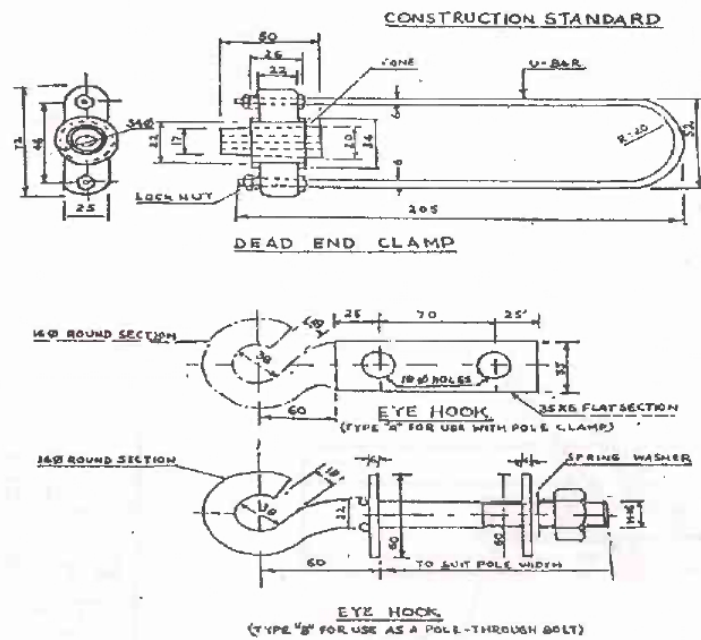


FIG. 1 DETAILS OF DEAD-END CLAMP & EYE HOOKS

DRG NO. 0050-72(D)  
RETRACTED.



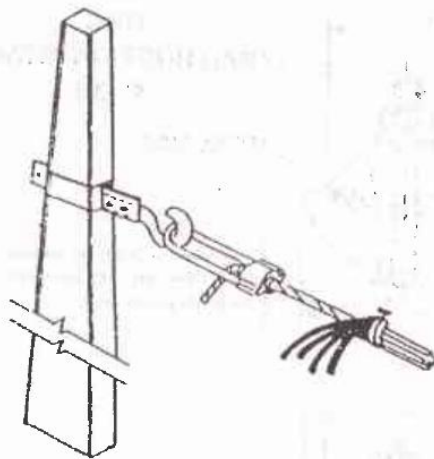


FIG. 2(a)

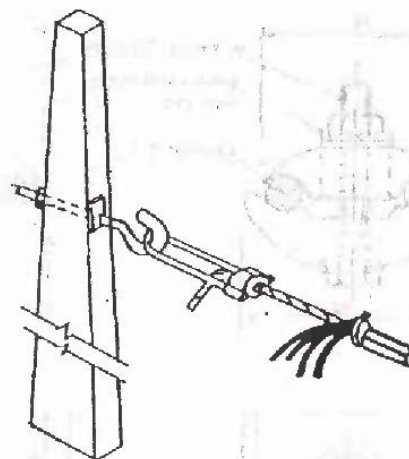


FIG. 2(b)

FIG.2 (a) AND 2(b) SHOWING THE DEAD END CLAMP IN POSITION WITH TWO TYPES OF EYE HOOKS

DD&SO  
72(E)

#### GENERAL REQUIREMENTS :

1. The Dead End clamp shall be made of high strength Aluminium alloy of designation 2280 (IS:617-1975) of tensile strength not less than  $250 \text{ N/mm}^2$  ( $27 \text{ kgf/mm}^2$ ). The U-bar shall be made of hot dip galvanised steel. The eye-hooks shall be made of forged steel (IS : 2004) or mild steel (IS: 1570).
2. The clamp shall be suitable for holding both  $25 \text{ mm}^2$  and  $35 \text{ mm}^2$  messenger wire sizes of compacted diameters of 5.8mm and 6.8mm.
3. The clamp shall have a cone for holding the messenger wire and it shall automatically grip the messenger wire due to 10 tension of the wire.
4. The clamp shall be free from all flaws, irregularities and sharp radii of curvature.
5. All ferrous fittings, eye hooks, bolts, nuts and washers shall be galvanised with Zinc conforming to grade Zn 98 of IS:209-1966. The spring washers and nuts etc. may be electro-galvanised. Nuts shall be made of material conforming to property Class 4.8 of IS:1367-1967 for its mechanical properties. [DRG No.-DD&SO-72(E)].

#### TEST REQUIREMENTS :

1. Slip strength shall not be less than 90% of the tensile strength of the messenger wires of  $25 \text{ mm}^2$  and  $35 \text{ mm}^2$  sizes having tensile strengths of 7.4 KN and 10.3 KN respectively (tests to be made separately for the two sizes).
2. The mechanical strength of the Dead End clamp shall not be less than 2000 Kg. The test shall be made separately for the clamp & the eye hook.

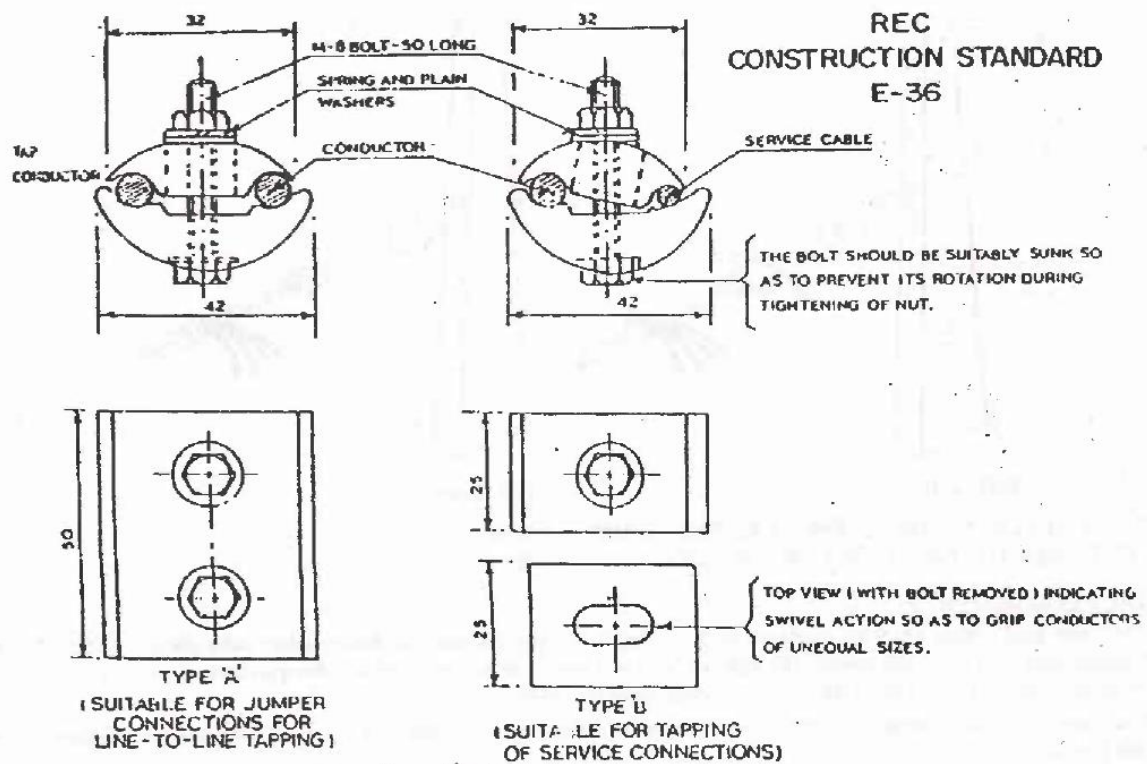
#### TESTS :

The Dead End clamp shall be subjected to the following tests in accordance with the latest version of IS : 2486 (Part-I).

<u>Type Tests</u>	<u>Acceptance Tests</u>	<u>Routine Tests</u>
(a) Slip strength test	(a) Verification of dimensions	(a) Visual Examination
(b) Mechanical test	(b) Galvanising test	(b) Routine Mechanical test
(c) Electrical resistance test	(c) Mech. test	
(d) Heating cycle test		
(e) Verification of dimensions		
(f) Galvanising test		
(g) Visual examination.		

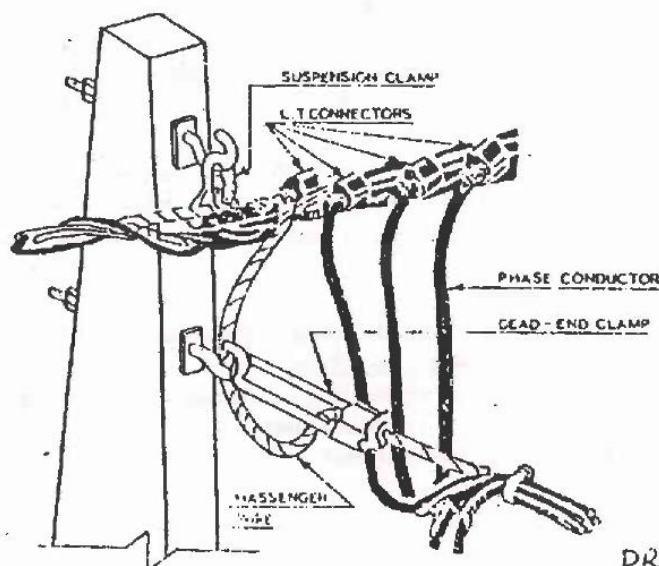
#### NOTES :

- (i) Permissible tolerance shall be  $\pm 5\%$  on the dimensions indicated.
- (ii) The supplier of dead-end clamps shall provide necessary facilities at his works for the acceptance tests.



एल. टी. कनेक्टर्स (टेंशन रहित)

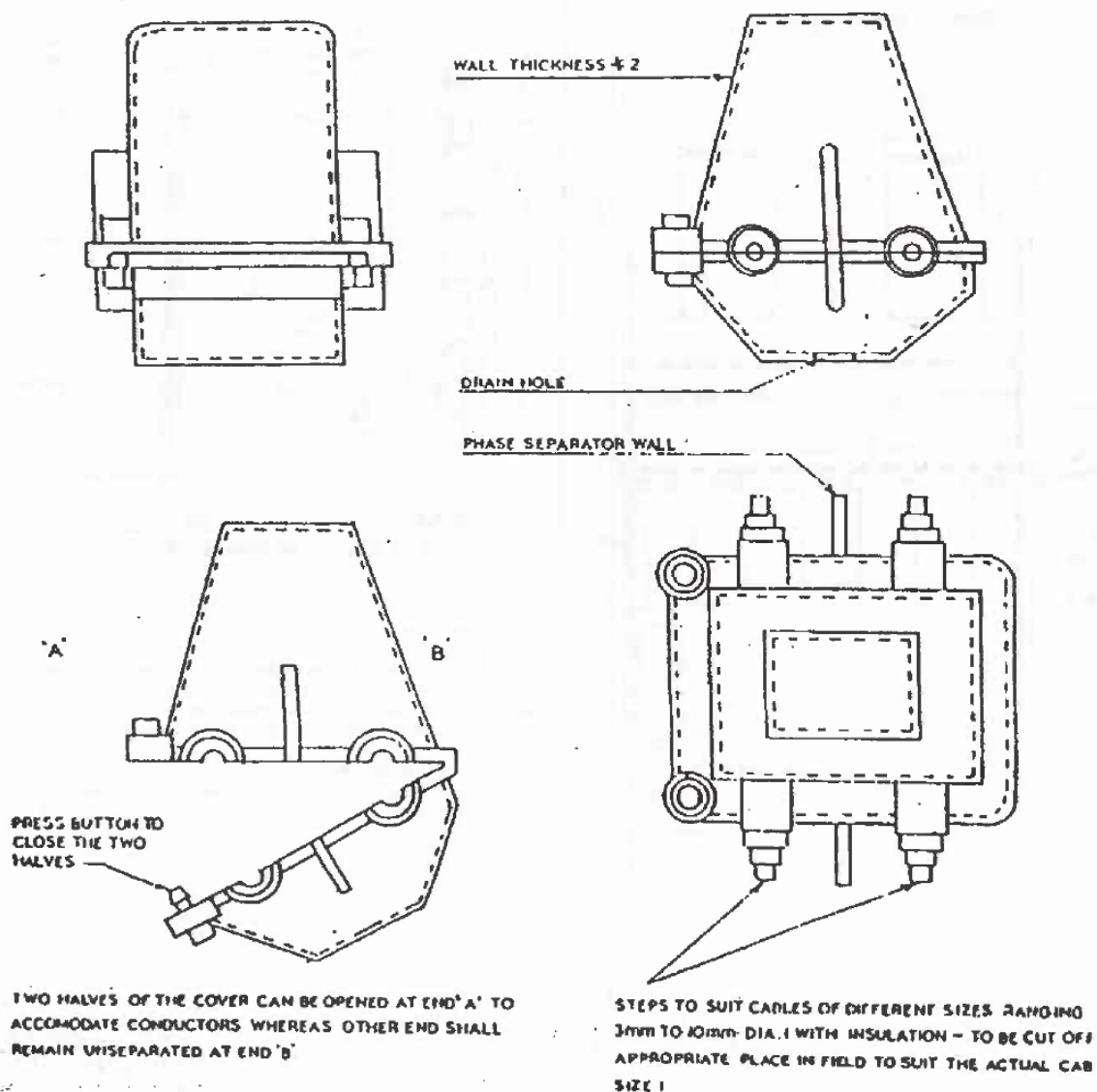
L.T. CONNECTORS (NON - TENSION)



DRG No  
DD/50-7265

चित्र १: यथा स्थिति में एल. टी. कनेक्शन की टैपिंग व्यवस्था

FIG.1: TAPPING ARRANGEMENT SHOWING LT CONNECTIONS IN POSITION.



#### NOTES:

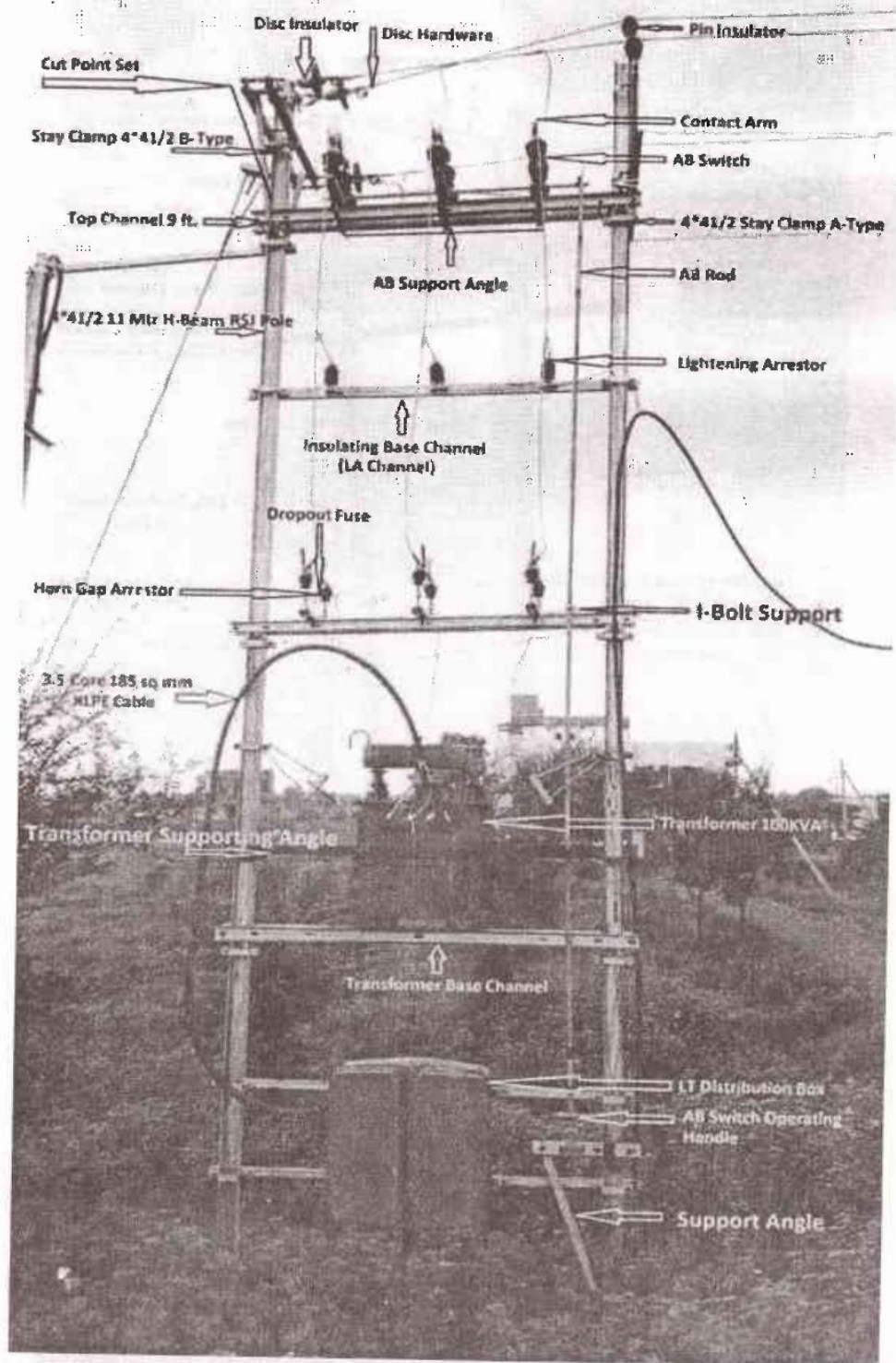
1. THE WALL THICKNESS OF THE COVER SHALL NOT BE LESS THAN 2mm.
2. THE TWO HALVES OF THE COVER SHALL CLOSE TIGHTLY TO PREVENT ENTRY OF WATER AS FAR AS POSSIBLE.
3. THE DIMENSIONS OF THE COVER SHALL BE SUCH AS TO ENCLOSE THE L.T. CONNECTOR PROPERLY.
4. TWO SEPARATE SIZES OF COVERS SHALL BE MADE FOR TYPE 'A' AND TYPE 'B' CONNECTORS.

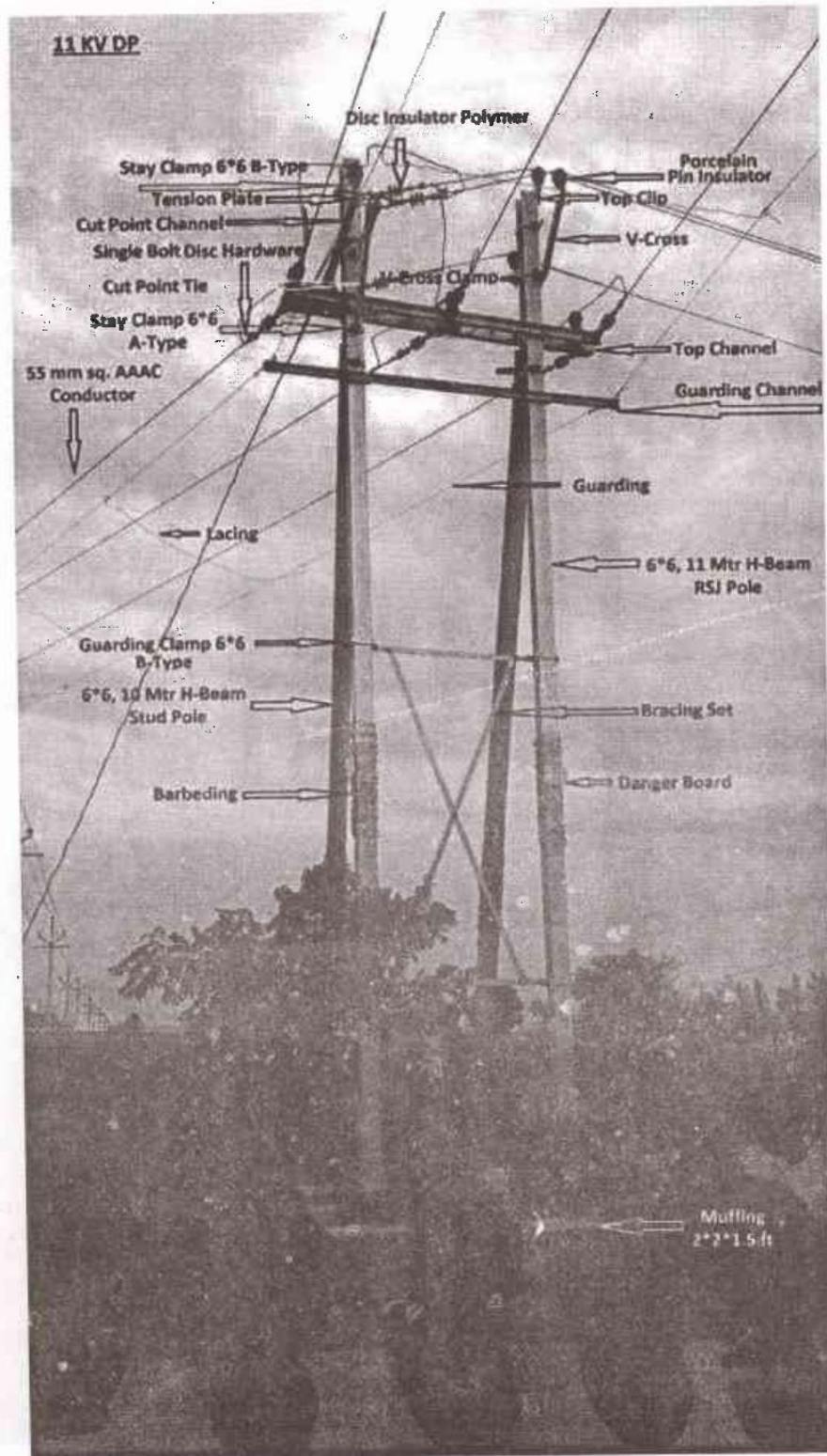
चित्र २: सल. टी. कनेक्टरों के लिए इन्सुलेशन कवर  
FIG:-2 - INSULATION COVER L.T. CONNECTORS.

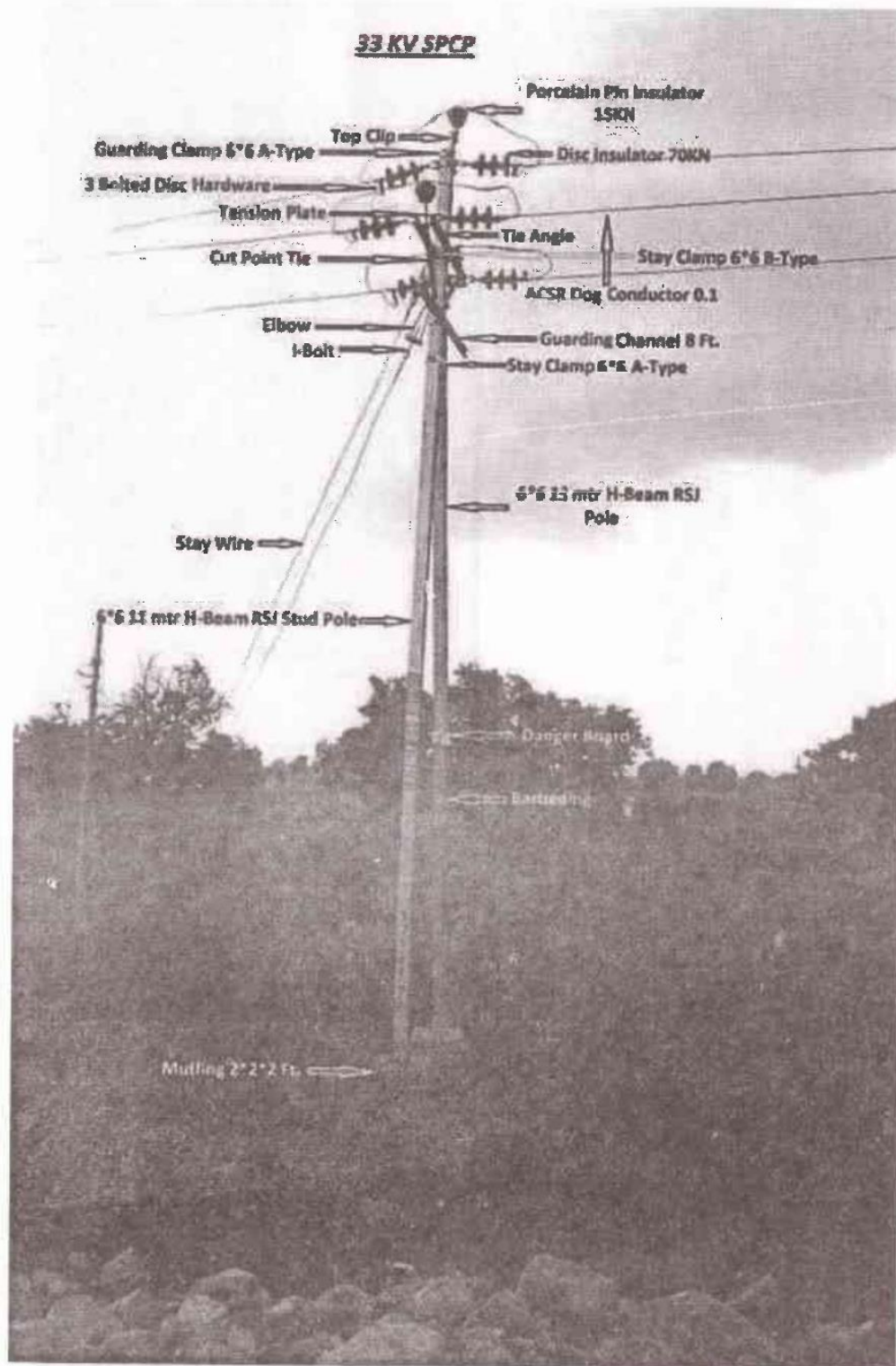
DRG-NO. DDE



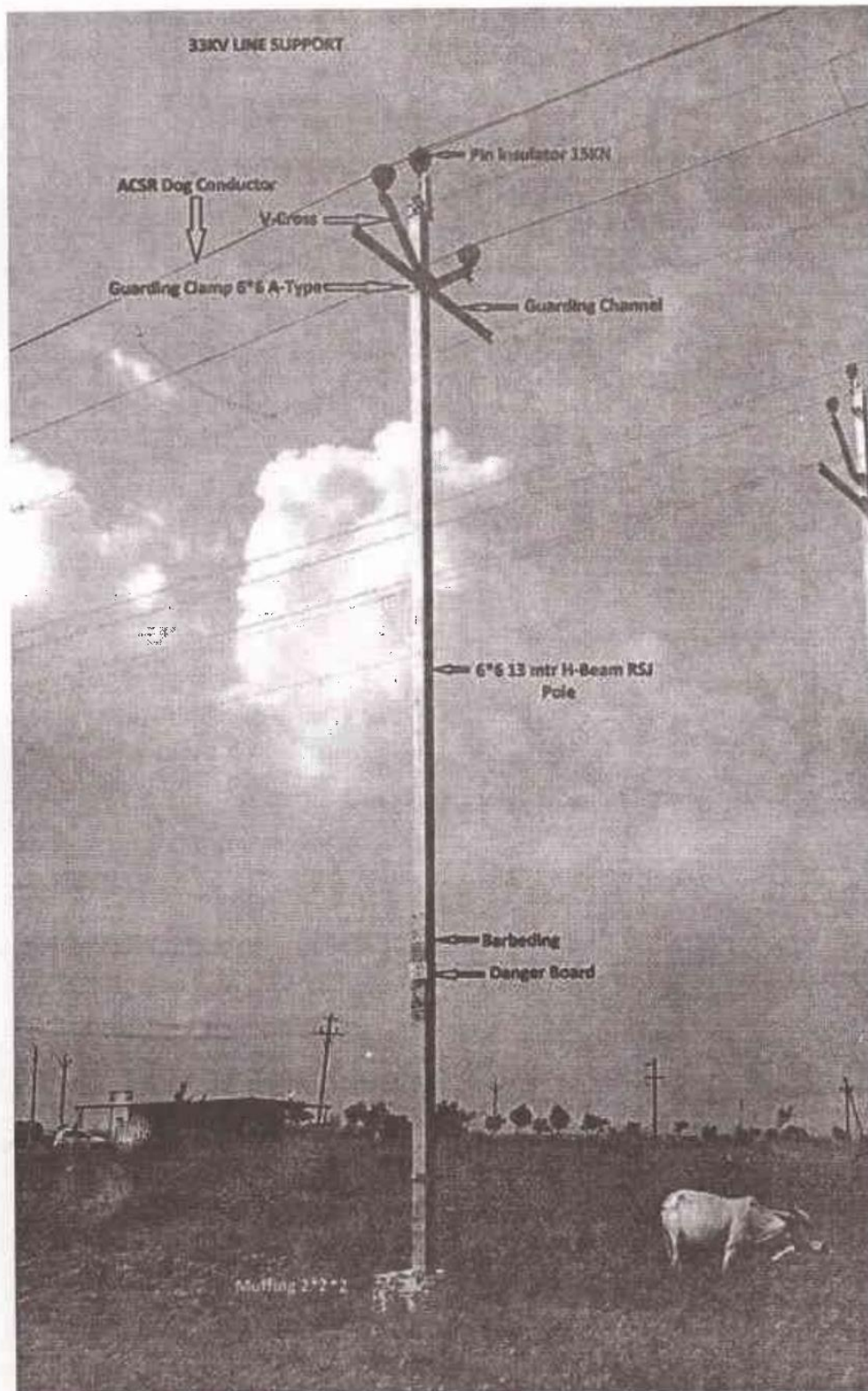
# TRANSFORMER DP

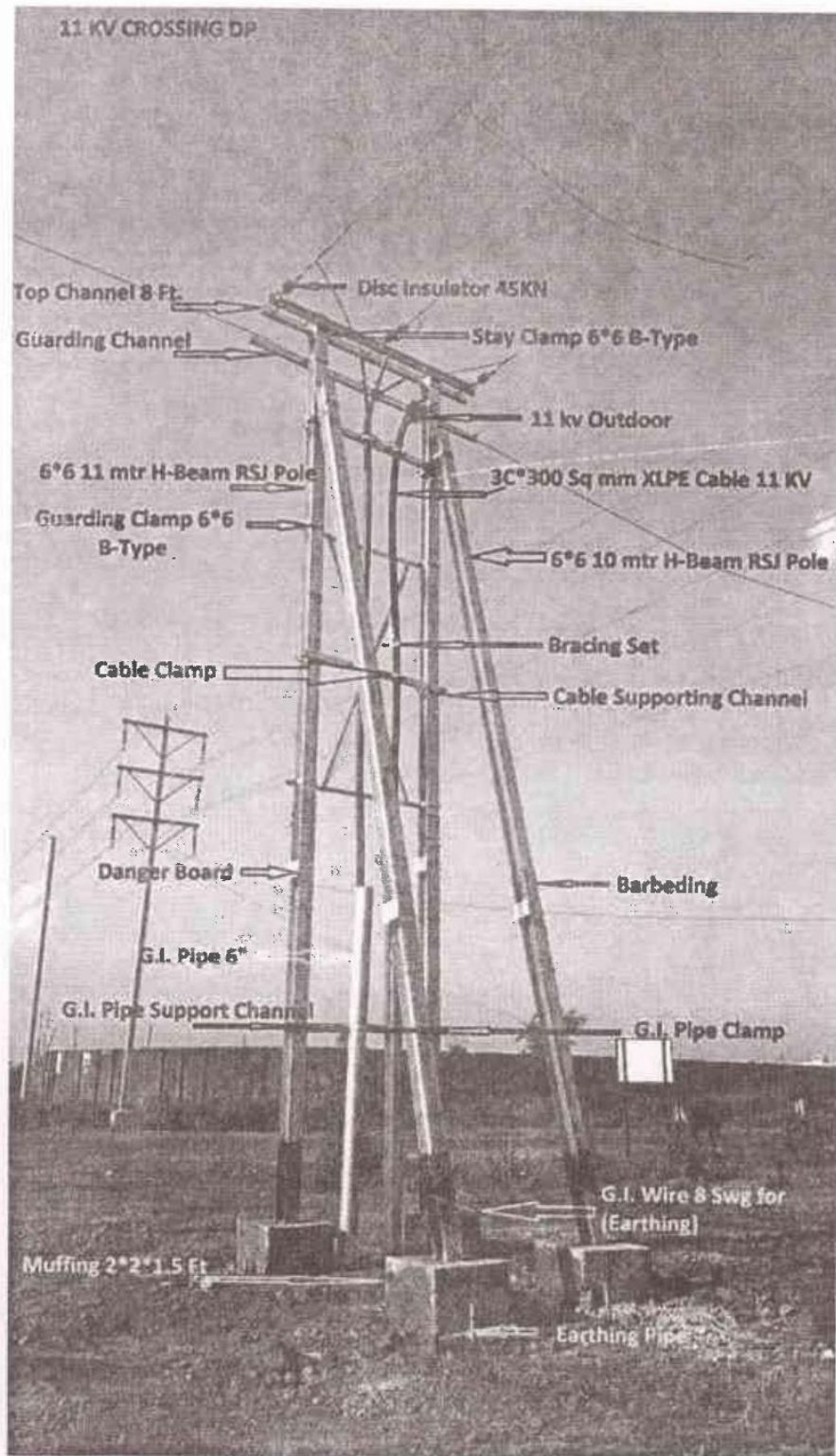




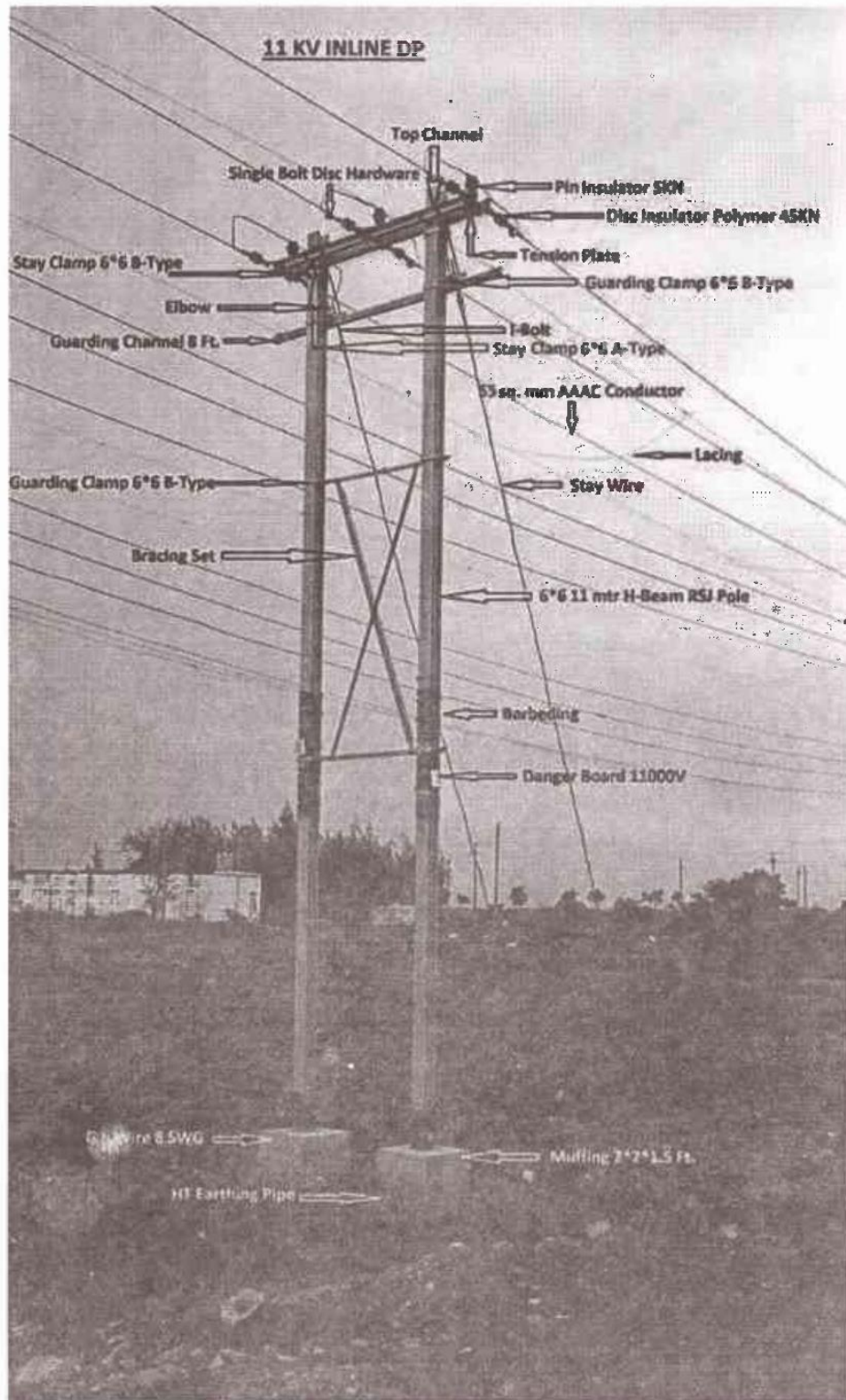




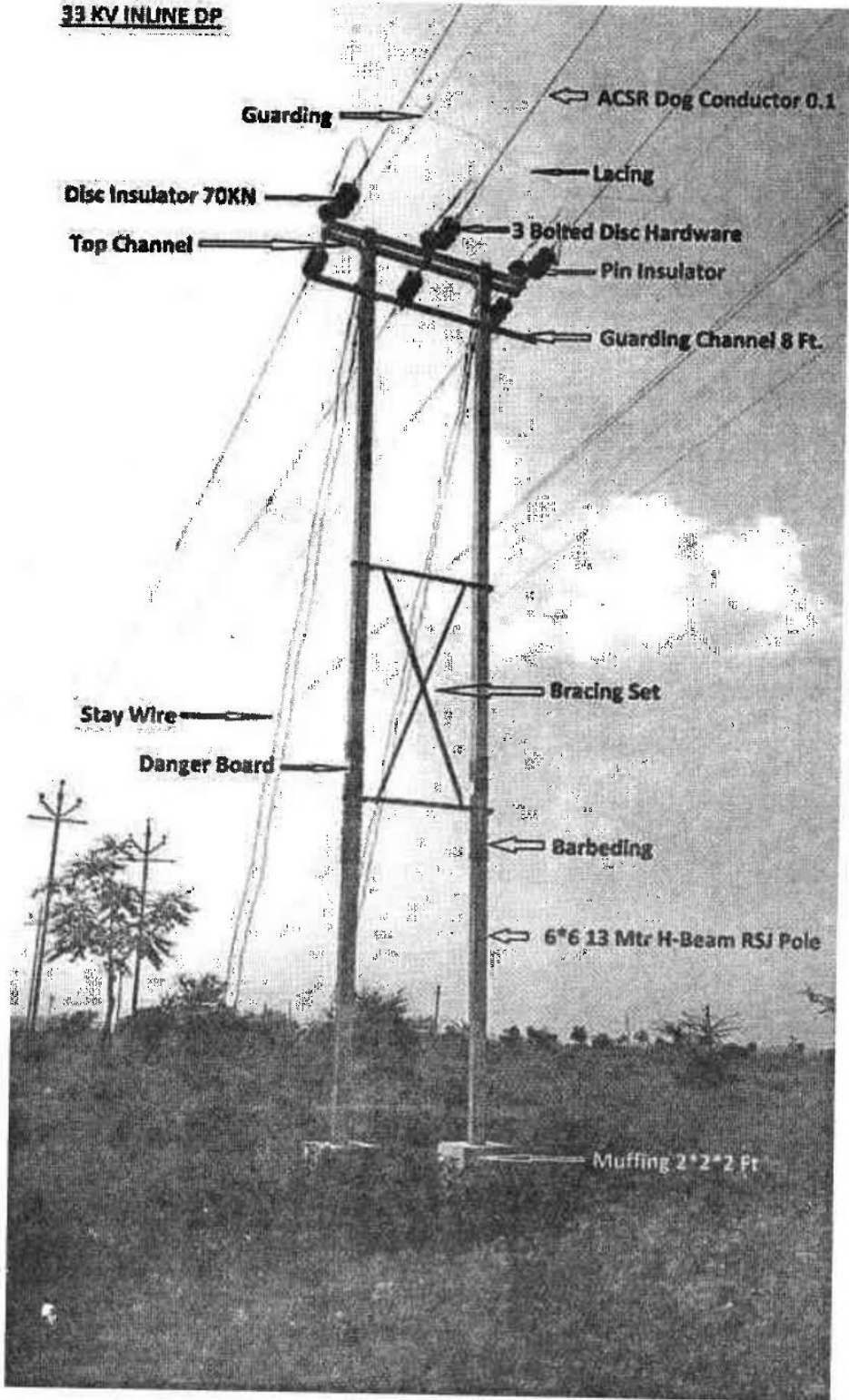


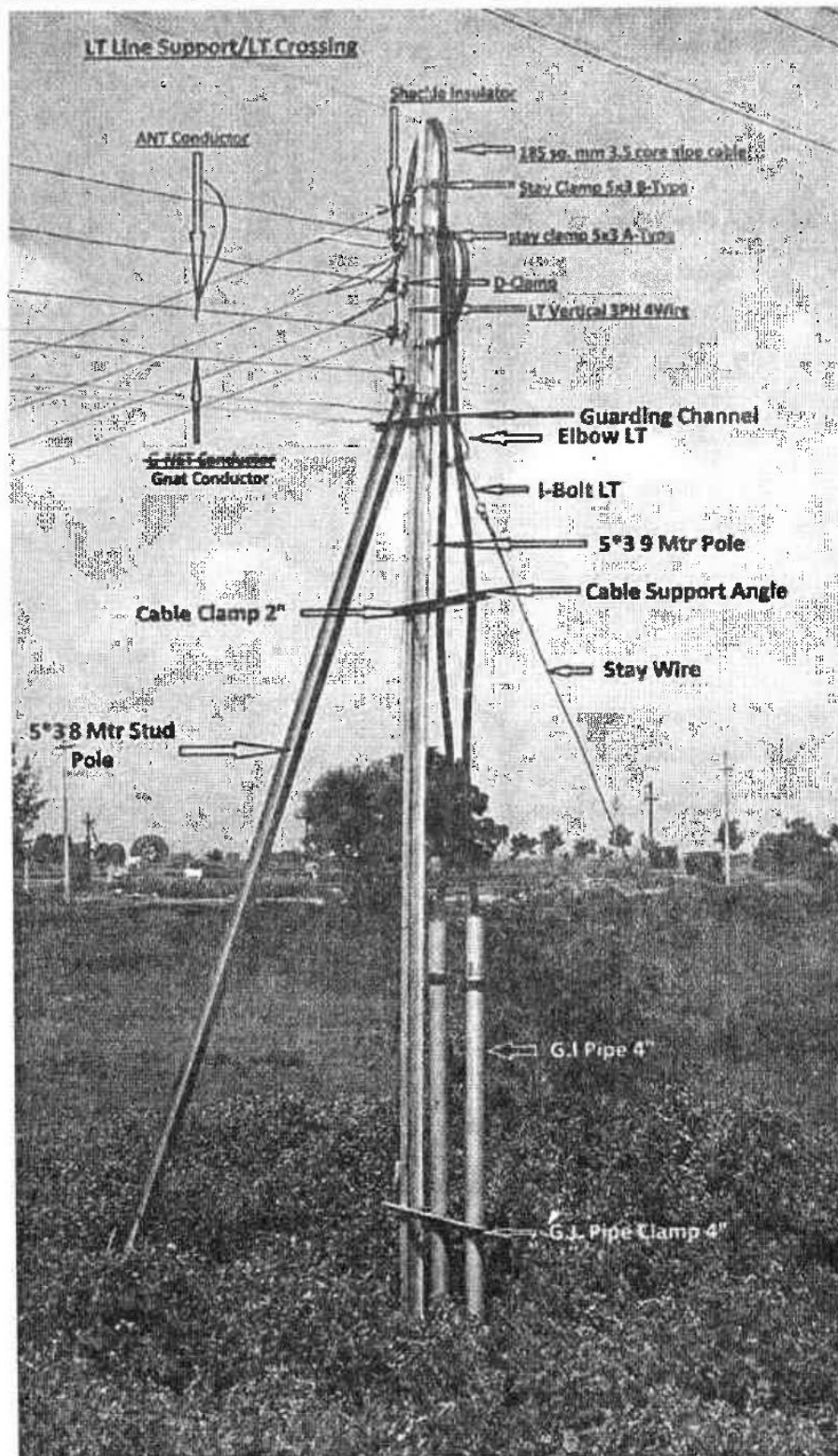






33 KV INLINE DP









## 11 KV LINE SUPPORT

