



NORTH BIHAR POWER DISTRIBUTION CO. LTD.

[Office of Chief Engineer, Project-I/Urban]
[Regd. Office: Vidyut Bhawan, Bailey Road, Patna]
CIN No: U40109BR2012SGC018920

Letter No: 1694

[File No:-N-XIII/RDSS/V.A./Motihari Circle-3031/2024-

Dated: 06-06-24

E-mail: cerdssnbpdcl@gmail.com

From,

J.K.Bhanu
Chief Engineer, Project-I (Rural)

To,

M/s Vindhya Telelinks Limited
Club 125, 6th floor, Tower A, Plot No- 3, 4 & 5,
Sector 125, Noida, UP-201301
Email: ashish@vtlrewa.com/ s.shah@vtlrewa.com/ epc@vtlrewa.com

Sub:- Regarding approval of GTP & Drawing of 8 Mtr. & 9 Mtr. PSC Pole of make M/s Nath Industries, Muzaffarpur for Loss Reduction Component works under "Revamped Reforms-Based and Results-Linked Distribution Sector Scheme."

Ref:- (i) NOA No.-246 & 247 dated 06.03.2023

(ii) Your letter no.- VTL/NBPDCL/RDSS/Approval/Motihari/87 dated 31.05.2024

Sir,

With reference to the above, please find the copy of approved GTP & Drawing of following item for Loss Reduction Component works under "Revamped Reforms-Based and Results-Linked Distribution Sector Scheme":-

Sl.N.	Material Description	Vendor Name
1	8 Mtr. 200 Kg PSC Pole	M/s Nath Industries, C/18, Industrial Area, Bela, Muzaffarpur
2	9 Mtr. 300 Kg PSC Pole	

Correction where required in GTP & Drawing submitted by you has been done. However, these GTP & Drawing shall be subject to correctness as per technical specifications of the tender document and the entire responsibility of correctness of the GTP & Drawing as per the specifications as well as supply of material according to the technical specifications of the contract agreement shall be that of the contractor.

In case of any conflict or contradiction between GTP & Drawing the decision of Chief Engineer, Project-I (Rural) shall be final and binding on both parties. Contractor shall have to replace the material to the entire satisfaction of the purchaser in case the material is found unsuitable for use in the project, at any stage.

Please carry out the works immediately under the conditions stated above.

Encl:- As above

Yours faithfully

(J.K.Bhanu)

Chief Engineer, Project-I (Rural)

Memo No.- 1694

Dated- 06-06-24

Copy forwarded M/s Ashoka Buildcon Ltd., Nashik/M/s J.K. Electric Contractor LLP, Jaipur/M/s NCC Ltd., Hyderabad- 500081 for information and necessary action.

Encl:-As above

(J.K.Bhanu)

Chief Engineer, Project-I (Rural)

Memo No.- 1694

Date- 06-06-24

Copy forwarded to Chief Engineer (Project-II), NBPDCL/ Chief Engineer, Project-I (Urban), NBPDCL for information and necessary action.

Encl:-As above

(J.K.Bhanu)

Chief Engineer, Project-I (Rural)

GTP DRAWING OF 8 MTR PSC POLE 200 KG W/L

SL. No.	Description	Unit	Guaranteed Value
1.	Over All Length of Pole	Mtrs.	8
2.	Depth of Plantation	Mtrs.	1.5
3.	Minimum Ultimate Transverse Load	Kgs.	500
4.	Weight of Pole in Kgs.	Kgs.	380 Approx.
5.	Factor of Safety		2.5
6.	Concrete Grade		M-42
7.	Working Load Applied at 600 MM from Top	Kgs.	200
8.	Volume of Pole in Cube Meters	Cubic Meters	0.157
9.	DIMENSIONS of the POLES		
a	Top Dimension	mm	90x145
b	Bottom Dimension	mm	90x290
10.	ACTUAL CONSUMPTION/QUALITY OF MATERIAL USED IN MANUFACTURE OF EACH PSC POLE		
c	Cement (Exclusive of wastage)	Kgs.	As per IS 269-1976 OR IS 8041 E-1978
d	Aggregate	CFT	As per relevant IS
e	Sand	CFT	As per IS 383-1970
f	H.T. Steel Wire	CFT	As per relevant IS
(i)	Dia of Wire	mm	4mm/12 Nos. wire full & 2 Nos. Half
(ii)	No. of Wire	Nos.	12Nos. Tensioned wire & 2 Nos. untensioned
(iii)	Weight of Wire	Kgs.	11.50 Approx.
g	Other M.S. Reinforcement		
(i)	HT Wire Rings	mm	4 mm HT Wire of 12 Nos.
(ii)	Weight of Steel	Kgs.	0.6
(iii)	HT Wire Hooks	Nos.	2
11.	EARTHING ARRANGEMENT IN EACH PSC POLES		
a	Length of GI Wire & SWG	Mtrs.	7.25 Mtrs. & 8 SWG
b	Weight of GI Wire	Kgs.	800 Gms
12.	CONCRETE MIX & CUBE STRENGTH		
a	After 72 Hours	Kgs/cum ²	210
b	After 28 days	Kgs/cum ²	420
13.	Method of Pre-Stressing	By Tensioning of HT Wires through Hydraulic Tensioning Machine	
14.	Ultimate Tensile Strength of Pre-Stress Wire	Kg/cm ²	17500
15.	Marking		

APPROVED

Subject to the condition that you are not absolved of the responsibility of correctness of materials.

C.E. Project-I (Rural)
NBPDCI

RDSS



NBPDCI, Makers- Sr No., Manufacturer's Name month / year of Manufacture, Project Name - RDSS

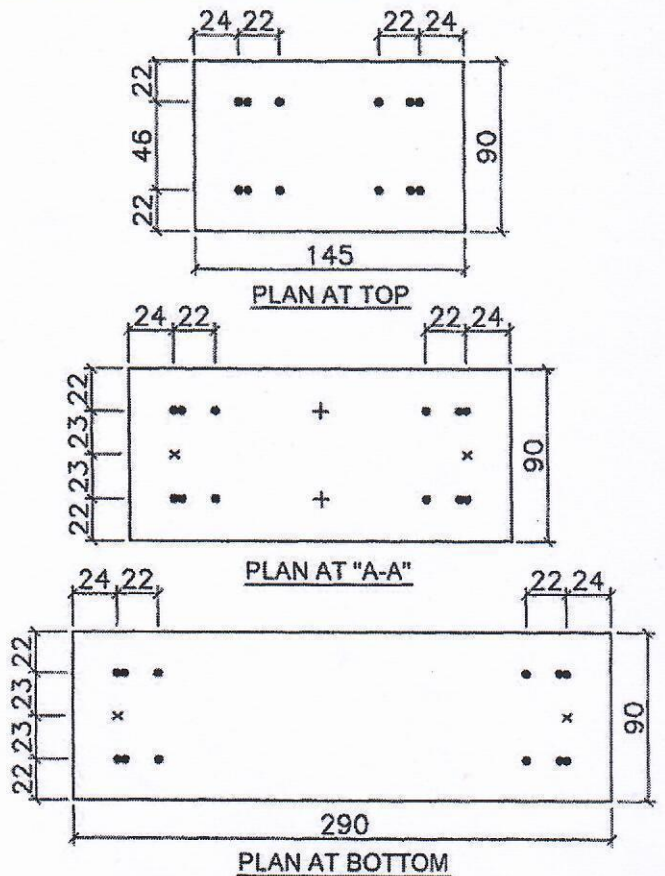
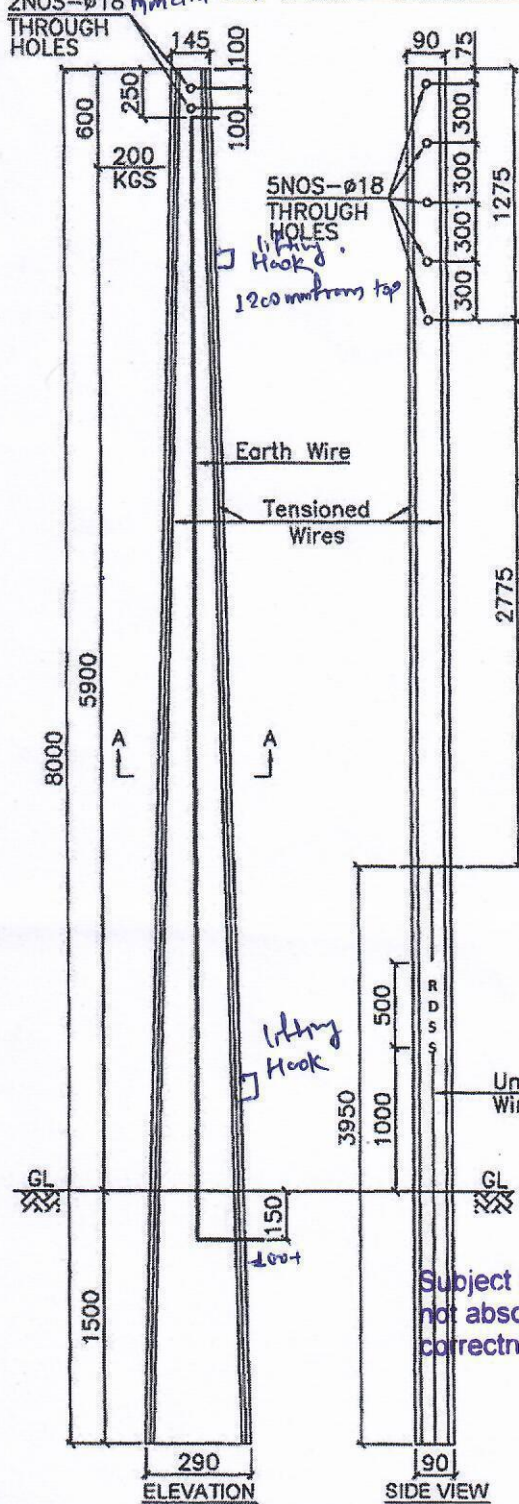
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Nates
J6/P1 AEE(P-1) EEE(P-1) ESE(P-1)

- * Applicable standards -
- (1) IS 269 - 1976 (Cement)
 - (2) IS 383 - 1970 (Aggregate)

* Poles has to be painted in mason colour from top upto 3A (IS-5/2007 - shaft 54) in all four faces.

TYPICAL DRAWING DETAILS OF 8.0 M/200 KG WORKING LOAD



LEGEND:

- DENOTES TENSIONED WIRES
- × DENOTES UNTENSIONED WIRES
- + DENOTES POSSIBLE POSITION OF EARTH WIRE

NOTES:

- 1) HOLES IN PSC POLE AS PER SITE REQUIREMENT.
- 2) WORKING LOAD 200KG ACTING AT 600MM BELOW FROM TOP OF POLE.
- 3) ALL DIMENSIONS ARE IN MM. (NOT TO SCALE)
- 4) THE POLE SHALL BE ENGRAVED AS PER DRAWING.

APPROVED

Subject to the condition that you are not absolved of the responsibility of correctness of materials.

C.E., Project-I (Rural)
NBPDC

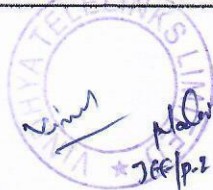
DESIGN DETAILS		
S.NO.	DESCRIPTION	QUANTITY
1	FACTOR OF SAFETY	2.5
	GRADE OF CONCRETE USED	M420
	DIAMETER OF PRESTRESSING WIRE	4MM
4	ULTIMATE TENSILE STRENGTH OF PRESTRESSING WIRE (KG/cm ²)	17500KG
5	NUMBER OF TENSIONED WIRES	12Nos
6	NUMBER OF UNTENSIONED WIRES	2Nos
7	NUMBER OF EARTH WIRE	2Nos
8	CONCRETE QUANTITY PER POLE	0.157 CU.M
9	STEEL QUANTITY PER POLE	11.5 kg 10.25KG
10	WEIGHT OF POLE	380KG
11	CLEAR COVER TO WIRE	20MM
12	LOCATION OF HOLES AS PER REC STANDARDS	

NOTES:-
FOR HOLDING PART LENGTH UNTENSIONED WIRES IN POSITION 4MM M.S STIRRUPS MAY BE USED WITH SUITABLE SPACING.

IF ANY PRACTICAL DIFFICULTY IS EXPERIENCED IN USING PART LENGTH UNTENSIONED WIRES, FULL LENGTH WIRES MAY BE USED INSTEAD, BUT THE TENSION IN THESE WIRES SHOULD NOT EXCEED OF THEIR UTS VALUE. HOWEVER IT MAY BE NOTED THAT USE OF PART LENGTH UNTENSIONED WIRES WILL BE MORE ECONOMICAL.

THE ALTERNATIVE OF USING FULL LENGTH WIRES INSTEAD OF PART LENGTH UNTENSIONED WIRES IS NOT POSSIBLE. THE POLE IS TO BE USED FOR LT LINES WITH VERTICAL CONFIGURATION. THIS IS BECAUSE OF NON-AVAILABILITY OF SUFFICIENT CLEARANCE BETWEEN THE EXTENDED FULL LENGTH WIRES AND THE HOLES TO BE PROVIDED IN THE POLE FOR FIXING THE SHACKLE INSULATOR.

CLIENT:	NBPDC
PROJECT:	RDSS
TITLE:	REINFORCEMENT DETAILS OF 8M/200KG PRESTRESSED CONCRETE POLE WITH GTP
DRG NO:	



Checked
AEE(P-1) EEE(P-1) ESE(P-1)

GTP DRAWING OF 8 MTR PSC POLE 200 KG W/L

52

SL. No.	Description	Unit	Guaranteed Value
1.	Over All Length of Pole	Mtrs.	8
2.	Depth of Plantation	Mtrs.	1.5
3.	Minimum Ultimate Transverse Load	Kgs.	500
4.	Weight of Pole in Kgs.	Kgs.	380 Approx.
5.	Factor of Safety		2.5
6.	Concrete Grade		M-42
7.	Working Load Applied at 600 MM from Top	Kgs.	200
8.	Volume of Pole in Cube Meters	Cubic Meters	0.157
9.	DIMENSIONS of the POLES		
a	Top Dimension	mm	90x145
b	Bottom Dimension	mm	90x290
10.	ACTUAL CONSUMPTION/QUALITY OF MATERIAL USED IN MANUFACTURE OF EACH PSC POLE		As per IS 269-1976 OR IS 8041 E-1978
c	Cement (Exclusive of wastage)	Kgs.	As per relevant IS
d	Aggregate	CFT	As per IS 383-1970
e	Sand	CFT	As per relevant IS
f	H.T. Steel Wire		
(i)	Dia of Wire	mm	4mm/12 Nos. wire full & 2 Nos. Half
(ii)	No. of Wire	Nos.	12Nos. Tensioned wire & 2 Nos. untensioned
(iii)	Weight of Wire	Kgs.	11.50 Approx.
g	Other M.S. Reinforcement		
(i)	HT Wire Rings	mm	4 mm HT Wire of 12 Nos.
(ii)	Weight of Steel	Kgs.	0.6
(iii)	HT Wire Hooks	Nos.	2
11.	EARTHING ARRANGEMENT IN EACH PSC POLES		
a	Length of GI Wire & SWG	Mtrs.	7.25 Mtrs. & 8 SWG
b	Weight of GI Wire	Kgs.	800 Gms
12.	CONCRETE MIX & CUBE STRENGTH		
a	After 72 Hours	Kgs/cum2	210
b	After 28 days	Kgs/cum2	420
13.	Method of Pre-Stressing	By Tensioning of HT Wires through Hydraulic Tensioning Machine	
14.	Ultimate Tensile Strength of Pre-Stress Wire	Kg/cm2	17500
15.	Marking	RDSS	

APPROVED
 Subject to the condition that you are not absolved of the responsibility of correctness of materials.

C.E., Project-I (Rural)
 NBPDCI

NBPDCI, Make & Ser No., Manufacturer's Name, Month/year of manufacture, Project Name - RDSS.

Checked
 AEE(P-1) EEE(P-1) ESE(P-1)



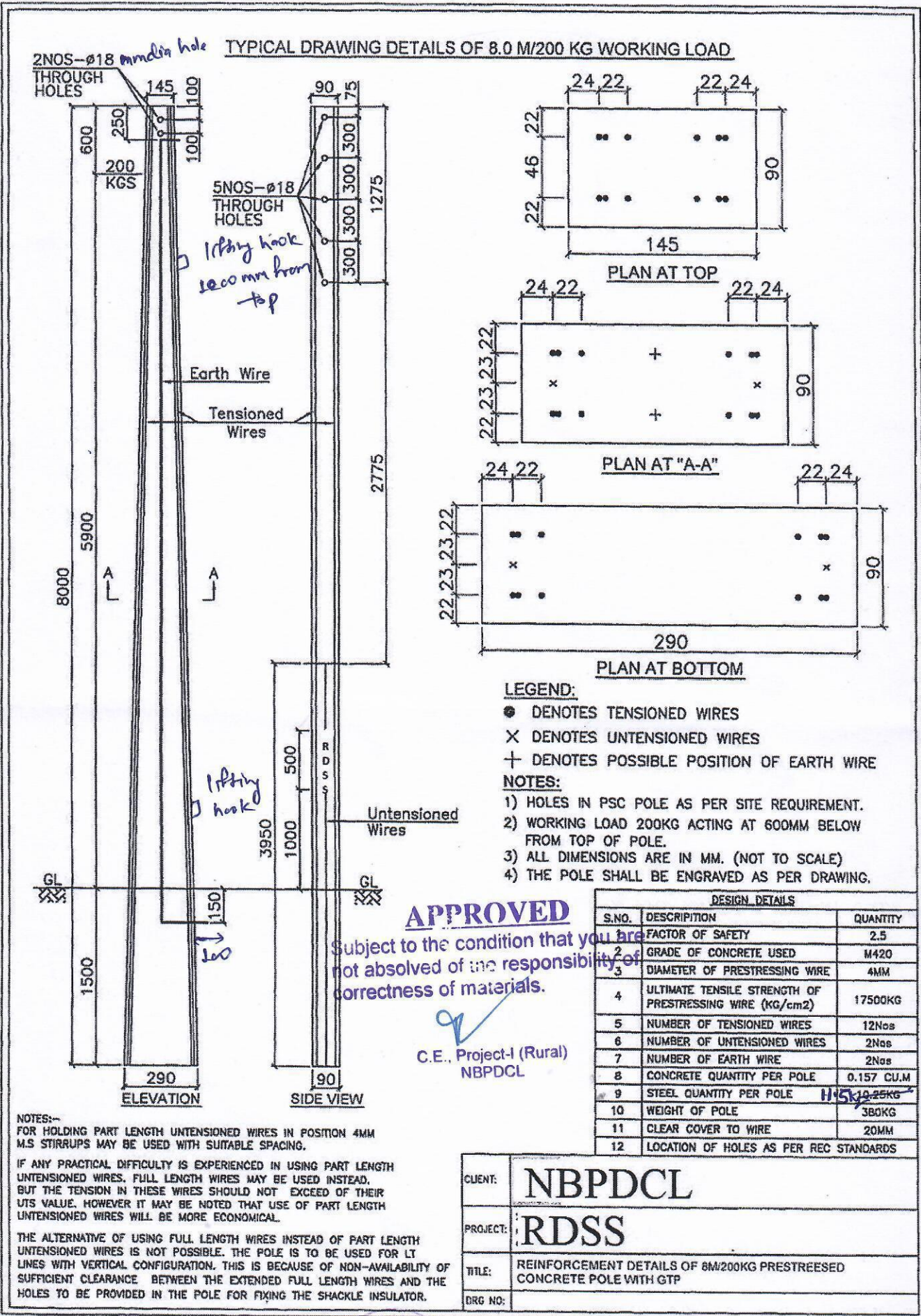
* Applicable Standards -

(1) IS 269-1976 (Cement)

(2) IS 383-1970 (Aggregate)

(3) IS 1678-2000 (Pole)

* Poles has to be painted in maroon colour from top
 at 150 mm in all four sides.



CLIENT:	NBPDC
PROJECT:	RDSS
TITLE:	REINFORCEMENT DETAILS OF 8M/200KG PRESTRESSED CONCRETE POLE WITH GTP
DRG NO:	



Checked
 AEE(P-1) EEE(P-1) ESE(P-1)

Guaranteed Technical Particulars of 9 Mtr 300KG PSC Pole

Sl. No.	Description	Unit	Particulars
1	Type of Pole		Pre Stress Concrete
2	Factor of Safety		2.5
3	Overall Length of Pole(Meter)	MTR	9
4	Working Load	Kg	300
5	Point of Application of Load		600 mm below from top
6	Depth of Plantation	Mm	1500
7	Overall Dimensions		
i)	Bottom Depth	mm	355
ii)	top Depth	mm	185
	Breadth	mm	100
8	Reinforcement Details		
i)	Diameter of Pre Stressing Wire	mm	4
ii)	No. of Tensioned Wires	Nos.	20
iii)	No. of Untensioned Wire	Nos.	0
iv)	Length of each pre stressing wire	Mtr.	9
v)	Ultimate Tensile Strength	Kg/cm ²	17500
vi)	Steel Quantity	Kg/pole	22
9	Concrete Detail		
i)	Cement Type		Ordinary Portland Cement -43 Grade
ii)	Concrete mix strength	Kg/cm ²	210 kg/cm ² at time of transfer of prestress(min)
		Kg/cm ²	420kg/cm ² at age of 28days(min)
iii)	Concrete Quantity	Cubic meter/pole	0.243m ³
iv)	Concrete covering to Wires	Mm	20
10	GI earthing wire	SWG	6
11	Length of GI Earth Wire	Mtr	7.8
12	Weight of PSC Pole	Kg	607
13	18 MM holes At a Distance of from top	Mm	100, 200, 1000
14	Engraving Marking		NBPDCL/SBPDCL, Makers Sr No., Manufacturer's Name Month/Year of Manufacture, Project Name - RDS
15	Standard confirming to		IS: 1678/2000
	Pole		IS:8041
	Cement		IS: 383/1970
	Aggregates		IS:6003/1983
	Pre stressing wire		IS:456/2000
	Concrete Mix		
	Tolerance Dimensions		a) +- 15mm on overall length of pole +- 5mm on sectional dimension 0.5% on the uprightness of pole

APPROVED

Subject to the condition that you are not absolved of the responsibility of correctness of materials.

G.E., Project-I (Rural)
NBPDCL



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 AFE(P-1) EEE(P-1) ESE(P-1)

man in colour from dt

S. NO.	DESCRIPTION	QUANTITY
1	NO OF TENSIONED WIRES (4mm)	20 Nos.
3	CONCRETE GRADE	M-40
4	OVERALL LENGTH SUPPORT	9.0MTR
5	PLANTING DEPTH	1500MM
6	DIA OF PRESTRESSING WIRE	4MM
7	CLEAR COVER	22MM
8	FACTOR OF SAFETY	2.5
9	WORKING LOAD	300 Kgs
10	ULTIMATE TENSILE STRENGTH OF PRESTRESSING WIRE	17500KG/CM ²
11	G.I. Earth wire 6 SWG	1No.

Concrete grade - M-42

LEGEND:
 ● DENOTES TENSIONED WIRES
 + DENOTES POSSIBLE POSITION OF EARTH WIRE

- NOTES:
- 1) ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE MENTIONED.
 - 2) POLE WITH ANY TWO EDGES ROUNDED SHALL ALSO BE ACCEPTABLE.
 - 3) TOLERANCE FOR UPRIGHTNESS SHALL BE 0.5%.

Method of pre-stressing - By tensioning of HT wires through Hydraulic tensioning

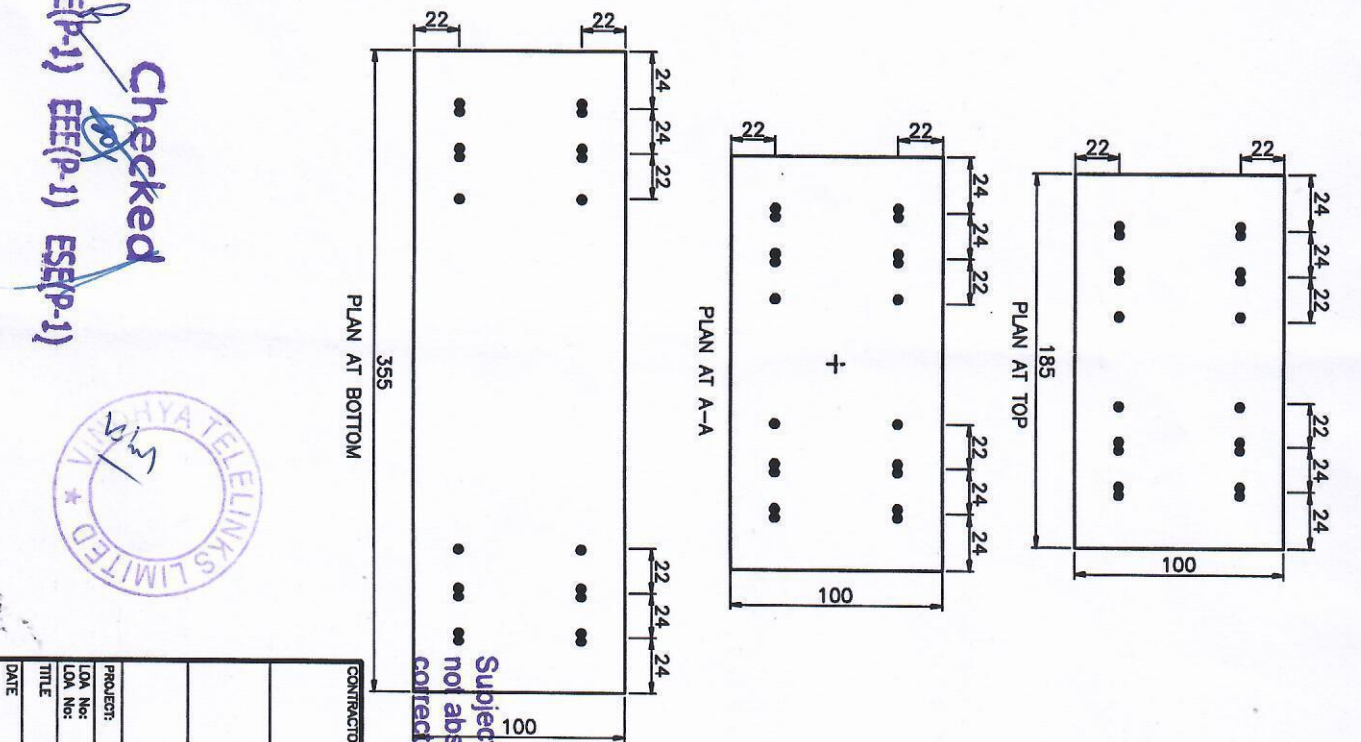
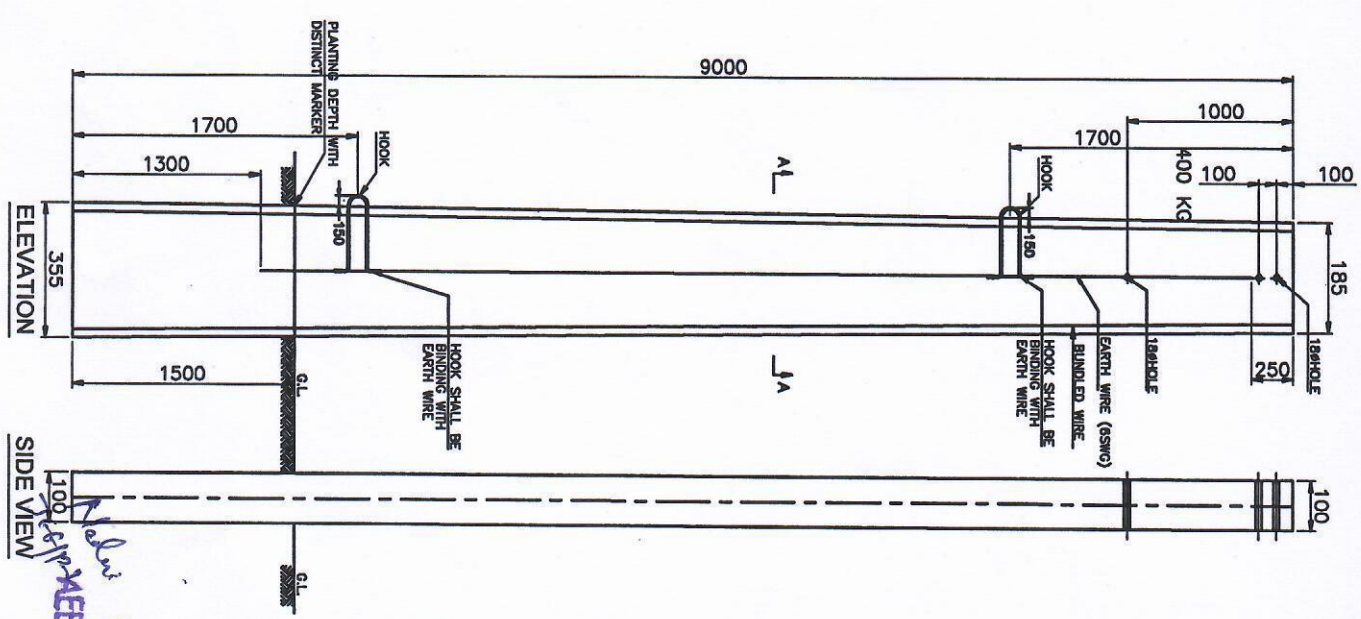


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Subject to the condition that you are not absolved of the responsibility of correctness of materials.

CONTRACTOR
 C.E., Project-I (Rural)
 NBPDCI

NORTH BIHAR POWER DISTRIBUTION COMPANY LIMITED



Checked
 (Signature)
 100 (E/P) (A/E) (P-1) EEE (P-1) ESE (P-1)



NO.	DATE	FOR APPROVAL	DESCRIPTION	MURALI	CHKD.	CLEARED BY	APRD	DATE	REMARKS
30	30.09.22								

PROJECT:		TITLE	
LOA No:		GA OF 9.0 MTR/300KG. PSC POLE (100MM WIDTH POLE)	DATE
LOA No:			30.09.22
SCALE		DRG. NO.	
NTS		PSC-300KG-GEN-002	REV. NO.
SIZE	A3		0
SHEET NO.		SHEET NO.	
1 OF 1		1 OF 1	

Guaranteed Technical Particulars of 9 Mtr 300KG PSC Pole

Sl. No.	Description	Unit	Particulars
1	Type of Pole		Pre Stress Concrete
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iii)	No. of Untensioned Wire	Nos.	0
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13	18 MM holes At a Distance of from top	Mm	100, 200, 1000
14	Engraving Marking		NBPDCL/SBPDCL, Makers Sr No., Subject to the condition that you Manufacturer's Name Month/Year of not absolved of the responsibility of Manufacture, Project Name - RDSS
15	Standard confirming to correctness of materials.		
	Pole		IS: 1678/2000
	Cement		IS:8041
	Aggregates		IS: 383/1970
	Pre stressing wire		IS:6003/1983
	Concrete Mix		IS:456/2000
	Tolerance Dimensions		a) +- 15mm on overall length of pole +- 5mm on sectional dimension 0.5% on the uprightness of pole

APPROVED

C.E. Project-I (Rural)
NBPDCL



Checked

AEE(P-1) EEE(P-1) ESE(P-1)

* pole has to be painted in maximum 5 days

