



# North Bihar Power Distribution Company Limited

Regd. Office-Vidyut Bhawan, Bailey Road, Patna.

CIN No:U40109BR2012SGC018920

(Department of Project II)

Letter No- 255 /

dated 07/07/2023 /

NB/P-II/Kishan/RDSS/ Vaishno Associates/74/2023

Contact No – 09264437179

Email – cerdssnbpdc12@gmail.com

From,

Pranav Kumar  
Chief Engineer (Project-II)

To,

M/s Vaishno Associates Vidyut Projects LLP,  
H.O-14-15,3<sup>rd</sup> Floor, Gajraj Tower,  
Motilal Atal Road, Jaipur-302001,

Sub: - Regarding approval of GTP & Drawing of 8 Mtr. 200 Kg PSC Pole & 9 Mtr. 300 Kg PSC Pole of M/s Hariom Industries for Kishanganj Circle.

- Ref :- 1) NIT No.-35/PR/NBPDCL/2022  
2) NOA No.-23 & 24 dated 06.03.2023  
3) Your Lt. No.- VAVP/NBPDCL/RDSS/KISH/2023-24/64 dated 06.07.2023

Sir

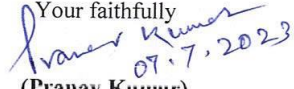
With reference to the subject noted above, please find enclosed herewith the GTP & drawing of 8 Mtr. 200 Kg PSC Pole & 9 Mtr. 300 Kg PSC Pole for Development of Distribution Infrastructure against NIT No.-35/PR/NBPDCL/2022 for Kishanganj Circle under Revamped Reforms-Based And Results-Linked, Distribution Sector scheme.

| Sl. No. | Name of Firm and address   | Name of Material/Equipment                               |
|---------|--|--|
| 1.      | M/s Hariom Industries, Reg Off-43-Jamuna Apartment, Boring Road, Patna-800013, Factory:-Sagdaha, Jasidih, B.Deoghar, Jharkhand-814142. | a) 8 Mtr. 200 Kg PSC Poles<br>b) 9 Mtr. 300 Kg PSC Poles |

The Correction wherever required in GTP/Drawing submitted by the manufacturer has been done. However, these drawing shall be subject to correctness as per technical specifications of the tender document and the entire responsibility of the correctness of the drawing as per the specification as well as supply of material according to the technical specification of the contract agreement shall be responsibility of the contractor.

In case of any conflict or contradiction between GTP/ Drawings & Technical Specification, the decision of C.E. (Project-II) shall be final and binding on both the parties. Contractor shall have to replace the material to the entire satisfaction of the owner in case the material is found unsuitable for use in the project, at any stage.

Please carry out the works immediately under conditions stated above.

Your faithfully  
  
(Pranav Kumar)  
Chief Engineer (Project-II)

Memo no 255-----/

dated 07/07/2023

Copy forwarded M/s Vindhya Telelinks Limited, Club 125, 6<sup>th</sup> Floor, Tower A, Plot No- 3, 4 & 5, Sector 125, Noida, UP-201301/ M/s Ashoka Buildcon Ltd., S.No.-861, Ashoka House, Ashoka Marg, Vadala, Nashik-422011/M/s Polycab India Ltd., Polycab House, 771, Pandit Satwalekar Marg, Mumbai / M/s NCC Ltd., NCC House, Survey no. 64, Madhapur, Hyderabad, 500081 / M/s JSP Projects Pvt. Ltd., Flat No.-5, IInd Floor, IIIrd B-2, Nehru Nagar, Ghaziabad (UP)-201001 /M/s CABCON India Ltd., 1<sup>st</sup> Floor, The Terminus Building, BG-12, Action Area- 1 B, New Town, Kolkata-700156 / M/s Techno Power Enterprises Pvt., INFINITY "THINK TANK" Tower II, 10<sup>th</sup> Floor Plot No. A3, Block-GP, Sector V, Salt Lake City, Kolkata-700091 (WB) for information and necessary action.

*Pranav Kumar*  
07.7.2023

(Pranav Kumar)

Chief Engineer (Project-II)

dated 07/07/2023

Memo no 255-----/

Copy forwarded to Chief Engineer, Project-I (Urban), NBPDCCL for information.

Memo no 255-----/

dated 07/07/2023

Copy forwarded to Director (Project), NBPDCCL for kind information.

*Pranav Kumar*  
07.7.2023

(Pranav Kumar)

Chief Engineer (Project-II)

Memo no 255-----/

dated 07/07/2023

Copy forwarded to M/s Rodic Consultant, Hq team for information and further needful.

*Pranav Kumar*  
07.7.2023

(Pranav Kumar)

Chief Engineer (Project-II)

Memo no 255-----/

dated 07/07/2023

Copy forwarded to OSD to MD, NBPDCCL for kind information.

*Pranav Kumar*  
07.7.2023

(Pranav Kumar)

Chief Engineer (Project-II)

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# HARIOM INDUSTRIES

(S.S.I. Unit of Jharkhand for Mfg. PSC Pole)

Regd. Office : 43, Jamuna Apartment, Boring Road, Patna - 800 013

Factory : Sagdaha Main Road, Jasidi h, B.Deoghar (Jharkhand)

9334100998 (M), E-mail : pradip.bhopalka@gmail.com, pradip.ranchi1962@gmail.com

No.:

Date.....

## GTP 8 METRE LONG 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.      | <b>DIMENSIONS of the POLES</b>   |  |  |
| a       | Top Dimension  | mm   | 90x145 ✓                                   |
| b       | Bottom Dimension   | mm   | 90x290                                     |
| 10.     | <b>ACTUAL CONSUMPTION/QUALITY OF MATERIAL USED IN MANUFACTURE OF EACH PSC POLE</b> |  |  |
| c       | Cement (Exclusive of wastage)  | Kgs.   | As per IS 269-1976 OR IS 8041 E-1978       |
| d       | Aggregate  | Kgs.   | 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.     | <b>EARTHING ARRANGEMENT IN EACH PSC POLES</b>                                      |  |  |
| a       | Length of GI Wire & SWG  | Mtrs.  | 7.25 Mtrs. & 8 SWG ✓                       |
| b       | Weight of GI Wire  | Kgs.   | 800 Gms                                    |
| 12.     | <b>CONCRETE MIX &amp; CUBE STRENGTH</b>  |  |  |
| 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   | (RDSS-LR) 17500 ✓                          |
| 15.     | Marking  | Engraving  |  |

**APPROVED**  
 Subject to the condition that you are not absolve of the responsibility of Correctness of materials  
 Chief Engineer (Project-II) NBPDC

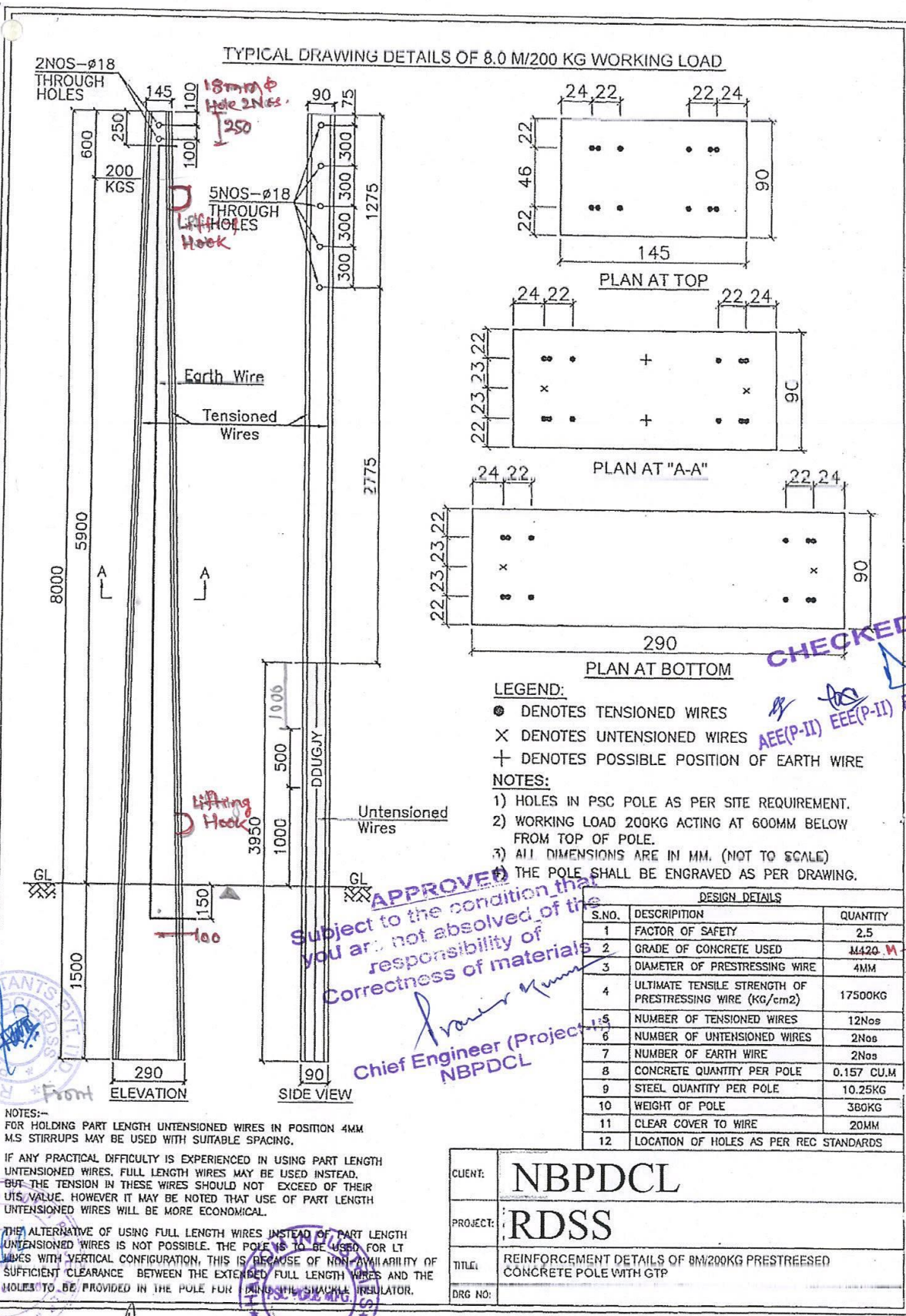


NBPDC dev. under RDSS-LR, Manufacturers name, Month/Year of manufacture  
 \* Colored indelible depth marker at 1.5 Mtr from bottom to verify the planting depth.  
 \* Top 3 feet of pole to be painted with IS-5 shade-541 in four faces.

**CHECKED**

AEE(P-II) EEE(P-II) ESE(P-II)

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.

CHECKED

AEE(P-II) EEE(P-II) ESE(P-I)

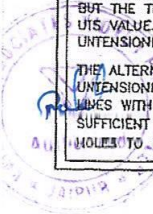
APPROVED  
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Chief Engineer (Project) NRPDCL

| DESIGN DETAILS |  |            |
|----------------|--|------------|
| S.NO.          | DESCRIPTION  | QUANTITY   |
| 1              | FACTOR OF SAFETY   | 2.5        |
| 2              | GRADE OF CONCRETE USED   | M420       |
| 3              | DIAMETER OF PRESTRESSING WIRE  | 4MM        |
| 4              | ULTIMATE TENSILE STRENGTH OF PRESTRESSING WIRE (KG/cm <sup>2</sup> ) | 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  | 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 ATTACHING THE INSULATOR.

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



# HARIOM INDUSTRIES

(S.S.I. Unit of Jharkhand for Mfg. PSC Pole)

Regd. Office : 43, Jamuna Apartment, Boring Road, Patna - 800 013

Factory : Sagdaha Main Road, Jasidi h, B.Deoghar (Jharkhand)

☎ : 9334100998 (M), E-mail : pradip.bhopalka@gmail.com, pradip.ranchi1962@gmail.com

C. No.:

Date.....

## GTP 9 METER LONG POLE 300 KG W/L

| 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 <sup>2</sup> | 17500 ✓  |
| vi)  | Steel Quantity                        | Kg/pole            | 22 ✓   |
| 7  | Concrete Detail                       |                    |  |
| i)   | Cement Type                           |                    | Ordinary Portland Cement -43 Grade ✓   |
| ii)  | Concrete mix strength                 | Kg/cm <sup>2</sup> | 210 kg/cm <sup>2</sup> at time of transfer of prestress(min) ✓   |
| iii)   |                                       | Kg/cm <sup>2</sup> | 420kg/cm <sup>2</sup> at age of 28days(min) ✓  |
| iv)  | Concrete Quantity                     | Cubic meter/p      | 0.243m <sup>3</sup> ✓  |
| v)   | 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 ✓                            |
| 15   | Standard confirming to 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<br>+- 5mm on sectional dimension<br>0.5% on the uprightness of pole |

**CHECKED**

4  
AEE(P-II) EEE(P-II) ESE(P-II)

**APPROVED**  
subject to the condition that you are not absolved of responsibility of correctness of materials

Chief Engineer (Project-II)  
NBPDCL



developed under ROSS - LR  
Coloured triangle depth marker at 1.5mtr from bottom to verify the planting depth.

\* Top 3-feet of pole to be painted with SS-5 shade-541 on all four faces.

Shade 541 on all four faces

