



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन एवं राजमार्ग मंत्रालय, भारत सरकार)

NATIONAL HIGHWAYS AUTHORITY OF INDIA

(Ministry of Road Transport and Highways, Govt. of India)

क्षेत्रीय कार्यालय / REGIONAL OFFICE

ई-6/47, स्मृति परिसर, साईबोर्ड के पास, अरेरा कॉलोनी, भोपाल (म.प्र.)-462016

E-6/47, Smriti Parisar, Near Sai Board, Arera Colony, Bhopal (M.P.)-462016

दूरभाष/Phone: 0755-2426638, फैक्स/Fax: 0755-2426698, ई-मेल/E-mail ID: robhopal@nhai.org



NHAI/RO-MP/Harda/Harda to Temagav/2024/E-249765/ 51104

Date: 03.06.2024

Invitation of Public Comments

Sub: Four Lanning of Harda to Temagav section from (design Ch. 0+000/Existing CH 141+750) to (Desing Ch. 30+000/Existing 180+500) section of NH-47 (old NH-59A) Design Length 30.000 km in the State of MP on Hybrid Annuity Basis-**Development of Inter-State Transmission work in Madhya Pradesh Package-01/Submission of 132KV overhead NH-47 Indore-Betul Road 2 nos. crossing proposal revised documents Sodalpur-Sulatanpur Transmission line, between Chainage no. 16+577, 166+515 (Near village Sodalpur) – Reg.**

Ref: PD, PIU-Harda e-office file (Computer No. 249765).

The Project Director, PIU-Harda vide e-office file (Computer No. 249765) has recommended the proposal for permission for Development of Inter-State Transmission work in Madhya Pradesh Package-01/Submission of 132KV overhead NH-47 Indore-Betul Road 2 nos. crossing proposal revised documents Sodalpur-Sulatanpur Transmission line, between Chainage no. 16+577, 166+515 (Near village Sodalpur).

2. As per Ministry vide OM No. RW/NH-33044/29/2015/S&R (R) dated 22.11.2016; the Highways Administrator will make available the proposal seeking permission for utility laying for public comments for 30 days on ground of public interest.

3. In view of the above the comments of public are invited on captioned proposal and the same should reach to below mentioned address till 02.07.2024 beyond which no comments will be considered.

The Highway Administrator
O/o Regional Officer,
National Highways Authority of India
E-6/47, Smriti Parisar,
Near Sai Board, Arera Colony,
Bhopal (MP)-462016
E-mail ID:robhopal@nhai.org

This issues with the approval of Regional Officer cum Highway Administration.


(Riya Rathore)
Manager (T)

Copy to:

- Web Admin, NHAI-HQ-with request for uploading on the NHAI website.
- The Senior Technical Director, NIC, Transport Bhawan, New Delhi-110001 for uploading on Ministry's Website.
- The Project Director, NHAI, PIU-Harda (M.P.) for information.
- The Authorized Signatory, M.P. Power Transmission Package-I Limited 2nd Floor, Niryat Bhawan, Rao Tularam Marg, Vasant Vihar Opposite Army Hospital & Referral, New Delhi-110057.

Check List			
For Overhead NH-47(BYPASS) Road Crossing by 132 Kv Sodalpur-Sultanpur Transmission Line.			
Sl.No.	Description	As Per Site.	Remarks
1	National Highway No.	NH - 47 (BYPASS)	
2	Crossing Name	132 kv D/C SS Sodalpur to Sultanpur Transmission line	
3	Crossing Chainage	16+577 (NEW ALIGNMENT)	
4	System Of Supplay (i.e. Volatage) Frequency ,no of Phases whether	132 kv, 3 phases, 50hz	
5	Position Of Tower.	AP6:- N- 2471195.06, E- 728574.16 AP7:- N- 2471034.16, E- 728516.46	
6	Normal Span at PANTHER Conductor	325	
7	Maximum Sag at Normal Span	7.611	
8	Crossing Span	171	
9	Preceding Span with Loc.	228 of AP5 to AP6	
10	Succeeding Span with Loc.	320 of AP7 to Loc. 7/1	
11	Hight Of Structure Above Ground And Below Ground Separately.	AP6:- Hight above ground= 37.50 m, Below ground = 3m. AP7:- Hight above ground= 34.50 m, Below ground = 3m.	
12	Sag Of PANTHER Conductor	Size 30/3 .0mm AL+7/3 .0 mm STEEL.	
13	Clearance Over Road	14.5 m	
14	Height of Lower Lower Conductor Over Ground Level at Loc.	AP6(DD+9):- 22.70 m AP7(DD+6):- 19.70 m	
15	Hight/Difference of Lower Conductor from level of SH/NH at Loc.	From bottom conductor to NH surface 14.5 mtr	
16	Angle of Road Crossing	88°50'30"	
17	Distance From SH/NH Boundary From Centre Of Tower.	AP6:- 66.4m. AP7:- 47.8m.	
18	Prependicular Distance from Center of Tower to Centre of Road	AP4:- 96.6M AP5:- 74.4	
19	Protection of Assembly Line	Earthing In Both Tower.	
20	Foundation Type	AP 6/0- DD+9, AP 7/0 DD+6	
21	No.Of Stay Required	NA	
22	Min factor of Safety	Earthing in Both Tower.	
23	Size Of Power Counductor	Size 30/3 .0mm AL+7/3 .0mm STEEL.DI -21.00mm,Weight- 0974/kg/m	
24	Size of Earth Wire/OPGW	Eart Wire 9.45mm,Weight=0.428/Kg/m,OPGW-12.22 mm,Dia Weight-0.451/kg/m	
25	Two Legs Of Tower Earthed	As per specification	
26	Plain paper Digram	Profile Enclosed	
27	Earthing	Pipe Type / Steel	



REVISED CHECKLIST

M.P POWER TRANSMISSION PACKAGE-I LIMITED		
NH 47 Crossing Chainage no 16+577 Indore -Betul Road for Construction of 132kv Sodalpur -Sulatanpur Transmission Line, Between Angle Tower No AP-6/0 (DD+9) And AP-7/0 (DD+6) Ministry Circular No-EW/MH-33044/29/2015/S&R ³ Dated-22.11.2016,& Circular No-NH-36094/01/2022-S&R(P&B)Dated-17.04.2023.		
Name Of Transmission Line-132kv Sodalpur -Sulatanpur With P anther Conductor		
1	Situation of tge EHV Transmission line crossing on NH/SH	Indore -Betul NH -47 KM Stone /Chainage no 16+577 (Over Head Crossing)
2	Site plan showing location of crossing(NH/SH boundary) in reference to NH/SH Mileage to be supplied on quadruplicate	Enclosed
3	Angle of crossing of Transmission line with the NH at crossing point	88°50'30"
4	The length of Span at the crossing and also those on either side of the crossing	Crossing Span 172 Mtr,From AP-6/0 to NH-Boundary-85.4 mtr,& AP-7/0 to NH -Boundary-62.9Mtr
5	In the event of the Transmission line deviation at any of the supports of the crossing necessitating one of the structures to be a corner structure ,deviation angle of such deviation the deviation of the span on either side of crossing shall be illustrated in the sketch mentioned in the cluse 2 above	Angle Type Tower -Loc AP- 6 /0 DD+ 9 Angle Type Tower Loc-AP- 7 /0 DD+ 6 (Enclosed Plan Drawing)
6	The number size ,and the material of the conductor and wires crossing the NH/SH each wire under under phase ,netural each,guard,bearer and ground cross wire should be separately described and their disposition indicated by means of sketch .	PANTHER -Diameter 21 mm,Unit Weight -974kg/m


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General Manager
MPPT PKG-1 LTD

7	Indicate wheter the proposed guard is to be restricted to the crossing span or it is to be continued over the adjacent span	NA
8	The deviation of the span on either side on the crossing shall be illustrated in the sketch mentioned in the cluse 2 above.	Enclosed drawing
9	System of supply (i.e voltage) frequency No.of phases .whether nutral is erthed or not	132kV ,50Hz, 3 phases,Earthwire/OPGW.
10	Height of the structure above ground and below ground separately	AP6/O- Hight above ground= 37.5m, Below ground - 3m.AP 7/O- Hight above ground= 34.5m, Below ground - 3m.
11	Height above ground level of (1) lowest conductor on insulator and (2) guard wire on brecket above ground level	Bottom Conductor From Road-14.5Mtr ,G-wire not reqired.
12	Height of the road level above ground level measured at the foot of the structure	Enclosed Drawing
13	Clearance of maxmimum sag condition between road level and the lowest live conductors & between road level and lowest guard wire (State if box type of guarding is provided in case on adoptions of unearthed nutural system)	From Road-14.5Mtr.
14	Ultimate tensil stress of the steel wire used for guard for earth wire in tones pe.Sq Cm	NA


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15	Approximate distance of each of the structure to the nearest SH/NH (marked by pillars/fencing) measured along the alignment of the Transmission line.	AP 6/0- 85.4m. AP 7/0- 62.9 mtr. Distance from NH boundary
16	Are the proposed structure is in SH/NH boundary	NO. Both Tower are outside of NH Boundary. (Privet land)
17	Are approved anticlimbing devices and warning notices provided on the structures erected	ACD and Denger plates are provided on both the Tower
18	National / State the tensile strength and dimension of the steel used for construction of each member of the supporting structure, it is to be noted that supporting structure must be of approved design confirming with I.S.I code of practic for use of structural steel in genaral bulding construction (IS 800 1965).	Tested Steel ,As per IS standard
19	Dimensions and type of brackets used for tre cross arms as well as for the guards wires.	NA
20	in each structure of the crossing span independently earthed by means of on earth plate.	Yes, Each structure is earthed.
21	In each structure supported by means of stage in three direction give the size of guy wires (the neglected in claculating the strength of structure)	Not required. Self supporting


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22	If no guard is provided ,in the Transmission line protected by device to ensure instantaneous isolation is conduction ?	Yes. The Transmission line is protected instantaneously by high speed protection relays with carrier equipment
23	Type of insulators used	Polymer insulator 120KN
24	State the method of maintenance to be employed to ensure following protection.	
(a)	From overhanging or decaying trees which might fall on the line.	The clearance 27Mtr (ROW) Maintained as per I.E Rules.
(b)	To reduce the hazard to life and property.	Danger plates anti climbing devices provided
(c)	Supporting structure including guys, from the denger of being struck by moving road vehicle	Safe tower falling distance from Road and Ground clearance is maintained as per C.E A/I.E Rules.
25	Drawing showing details of crossing distrubance of road,ground or attchment that may be necessary.	Enclosed.

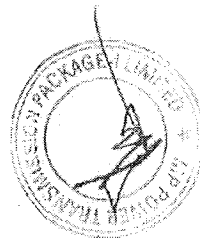

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General Manager
MPPT PKG-1 LTD

M.P POWER TRANSMISSION PACKAGE-1 LIMITED

132 Kv DCSS Sodulpur-Sultanpur Transmission Line

Overhead Crossing NH-47(New Alignment) Indore-Betul Road, At Chainage 16+577

Crossing Details	
Crossing Angle	88°50'30"
KM Stone No.	At Chainage 16+577
Crossing Location No/Type of tower	AP6/0 (DD+9) & AP7/0 (DD+6)
Clearance From Bottom Conductor	14.5 m from NH surface
ROW in both side from Center	13.5 m from center (corridor 27 m as per I. E. rule)
Crossing Span Length	171m
Tower Height	AP6/0 = 37.5m & AP7/0 = 34.5m
Clearance	22.7m AP6/0 & 19.7m AP7/0



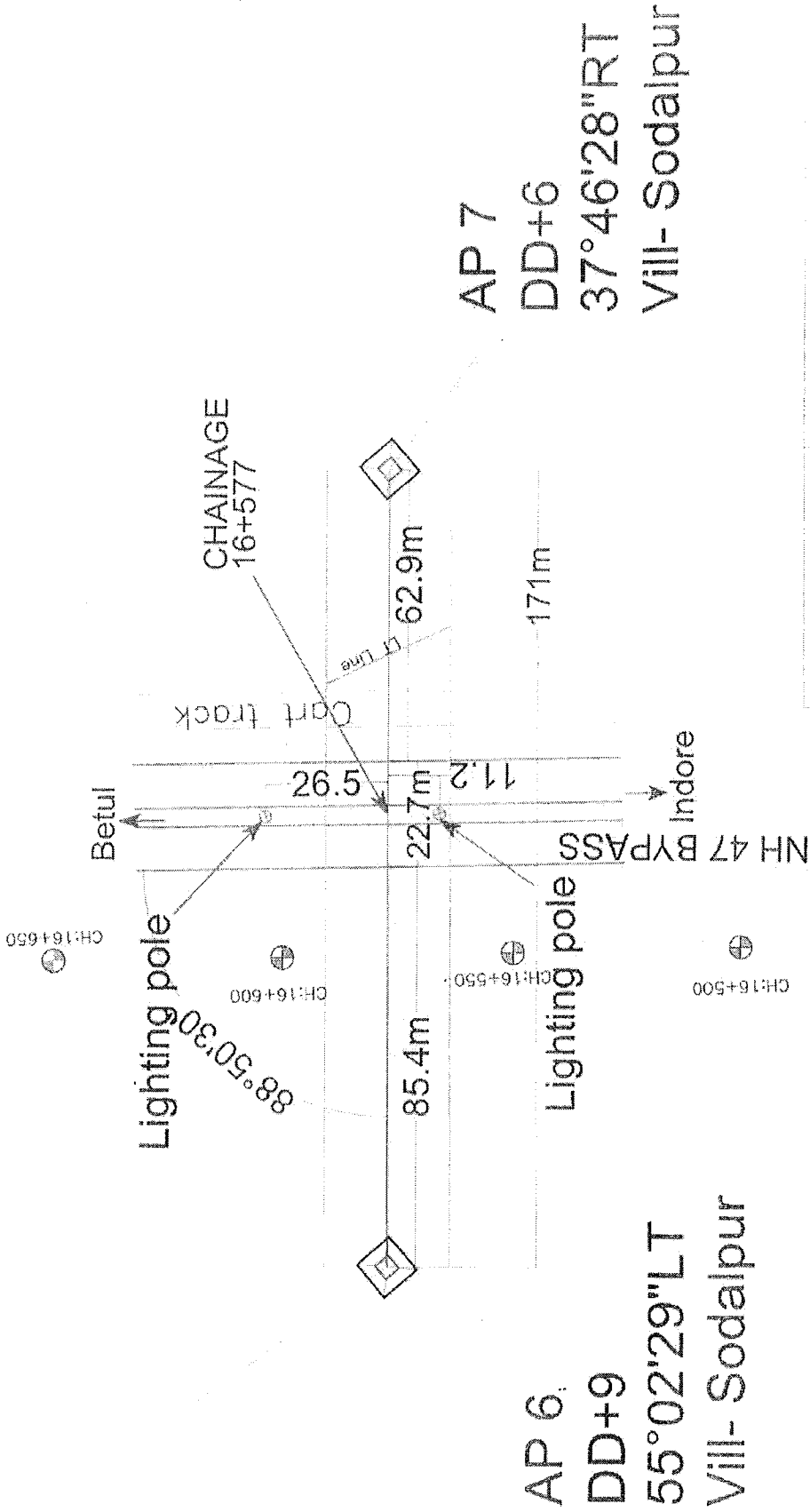
NAME OF PROJECT :- (ELEMENT NO: 4) 132 KV DCSS Sodulpur to Sultanpur Transmission Line
NAME OF CLIENT :- M. P. POWER TRANSMISSION PKG-1 LIMITED
NAME OF AGENCY :- Megha Engineering & Infrastructures Limited

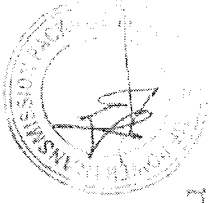
TOWER SCHEDULE :- AP6 to AP7 (171m)

Sl. No	Twr No.	Tower Type	Deviation Angle (DMS)	Span (m)	Cum. Chainage (m)	Wind Span (m)	Adjacent Span			Weight Span (Cold)			Weight Span (Hot)			UTM Coordinate		Elevation	Major Crossings / Remarks
							Left	Right	Total	Left	Right	Total	Left	Right	Total	Easting	Northing		
12	AP 6	DD+9	55°02'29"LT		2633	199.5	228	171	399	158	144	302	139	119	258	728574.16	2471195.06	305.72	
				171															National Highway Bypass 47, Cart track, I.T line
13	AP 7	DD+6	37°46'28"RT		2804	245.5	171	320	491	27	217	243.6	52	192	244.1	728516.46	2471034.16	305.44	

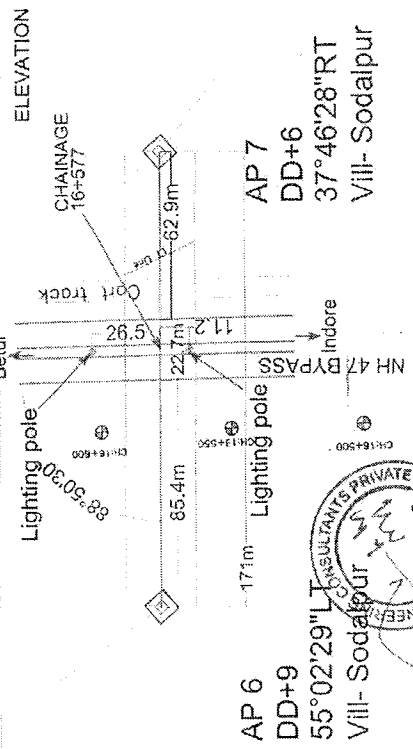
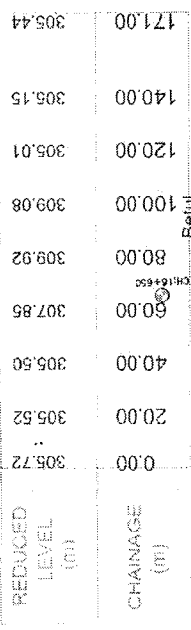
SURVEYED BY	CHECKED BY	SUBMITTED BY
 Tanmay Patra MEIL	 G. Sudhir Babu Sr. Project Manager MEIL	

SLD OF 132 KV DCSS SODALPUR - SULTANPUR TRANSMISSION LINE OVERHEAD
CROSSING OF NATIONAL HIGHWAY 47 BYPASS (INDORE - BETUL)



SURVED BY	CHECKED BY	SUBMITTED BY
 Tanmay Patra MEIL	 G. Sudhir Babu Sr. Project Manager MEIL	


Resident Engineer
Resident Cum Highway Engineer
Lda Engineering Consultants Pvt. Ltd.
Harda-Tenagav Pkg-1



TOWER SPOTING DATA - WIND ZONE-4 (47M/SEC)	
Basic Span	325 M
Conductor Type	PANTHER
Overall Diameter	21.00 mm
Cross Section Area	261.500(Sqmm)
Unit weight	0.974 kg/m
Modulus of Elasticity	8.16E+05 Kgf/Sqcm
Coeff of Thermal Expansion	1.78E-05
Temp. Range	-5°-32°-88°
Max. Sag Hot (85°)	7.611 m
Max. Sag Cold (-5°)	3.06 m
Sag Error	0.15
Max Tension Hot (85°)	1690.0 Kgs
Max. Tension Cold (-5°)	2986.0 Kgs
Minimum Ground Clearance Require+Sag Error	6.1 m 0.15 m= 6.25 m
Way Leave Clearance (Elger Side)	13.5 m
Minimum Vertical Clearance for Rail Line Crossing	15.56 m
Minimum Vertical Clearance for Power Line Crossing	3.05 m
WIND ZONE	4 (47M/SEC)

PROPOSAL OF NH - 47 BYPASS CROSSING IN BETWEEN LOCATION
AP6 - AP7 & CHAINAGE 16+577

CLIENT	M.P. POWER TRANSMISSION PKG-1 LTD
PROJECT	(ELEMENT NO: 4) 132 KV DCSS Sodalpur - Sultanpur Transmission Line
DRAWING TITLE	PLAN & VERTICAL CLEARANCE DRAWING OF NH-47 BYPASS CROSSING DIVISION : INDORE - BETUL SECTION : AP6 - AP7
Surveyed by	Checked by
	Submitted by

Submitted by

Checked by _____

Surveyed by

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AP 7

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173

AP 6

6+D

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PLAN

President, October 29, 1963

General - 1000

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TOWER SPOTING DATA - WIND ZONE-4 (47M/SEC)	
Basic Span	326 M
Conductor Type	PANTHER
Overall Diameter	21.00 mm
Cross Section Area	261.500(Sqmm)
Unit weight	0.874 kg/m
Modulus of Elasticity	8.1E+05 Kgf/Sqcm
Coef. of Thermal Expansion	1.70E-05
Temp. Range	-5° -32° -65°
Max. Sag Hot (65°)	7.611 m
Max. Sag Cold (-5°)	3.06 m
Sag Error	0.15
Max. Tension Hot (65°)	1690.0 Kgf
Max. Tension Cold (-5°)	2980.0 Kgf
Minimum Ground Clearance Requisite+Sag Error	6.1 m+0.15 m= 6.25 m
May Leave Clearance (Eligible Side)	13.5 m
Minimum Vertical Clearance for Rail Line Crossing	15.56 m
Minimum Vertical Clearance for Power Line Crossing	8.05 m
WIND ZONE	4 (47M/SEC)
LEGEND	
GROUND FEATURE	PLAN
TAR ROAD/METAL ROAD	
LT LINE	
11 KV LINE	
33 KV LINE	
132/220 KV LINE	
400/765 KV LINE	
HOT CURVE	
COLD CURVE	
GROUND CLEARANCE	
SUSPENSION TOWER	
TENSION TOWER	
Horizontal Scale 1 cm = 20m.	
Vertical Scale 1 cm = 2m.	
Client	M.P. POWER TRANSMISSION PKG-1 LTD
Project	(ELEMENT NO.4) 132 KV DCSS Sodapur - Sultanpur Transmission Line
Section :	AP 6 to AP 7 (Length=171 m)
M.P. POWER TRANSMISSION PKG-1 LTD	
Surveyed by	Tanmay Pava MEIL
Checked by	G. Sudhakar Sr. Project Engineer MEIL
Submitted by	

