



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन और 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/KNW/Bahadpur-Badgaaon/Electric Line/2023/ Date: 09.08.2023

49635

Invitation of Public Comments

Sub: 4-Laning of Boregaon Buzurg to Shahpur Section of NH-753L from Design Ch. 139+000 To 216+278 (PKG-I & II) under Bharatmala Pariyojana in the state of Madhya Pradesh on HAM mode - **Approval/Permission of Transmission Line Crossing of 132KV DCSS Bahadpur-Badgaaon proposed on NH-753L - Reg.**

The Project Director, PIU-Khandwa vide their note dated 02.08.2023 has recommended the proposal for permission of transmission line crossing of 132KV DCSS Bahadpur-Badgaaon proposed on NH-753L.

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 08.09.2023 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.

(Paras Bansal)
Manager (T)

Copy to:

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

Check List

For Overhead SH 27/NH Road Crossing by 132 Kv DCSS BAHADURPUR -BADGAON Transmission Line.

Sl.No.	Description	As Per Site.	Remarks
1	State Highway No.	SH - 27	
2	Crossing Name	132 KV DCSS BAHADURPUR TO BADGAON	
3	Crossing Chainage	14-15	
4	System Of Supply (i.e. Voltage) Frequency, no of Phases whether	132 kV, 3 phases	
5	Position Of Tower	AP 10/1 :- N- 2351549, E-626534 AP 11 :- N- 2351456, E- 626717	
6	Normal Span at ACSR PANTHER Conductor	375	
7	Maximum Sag at Normal Span	7.611	
8	Crossing Span	205.75	
9	Preceding Span with Loc.	200 of loc. AP 10 to AP 10/1	
10	Succeeding Span with Loc.	235 of loc. AP 11 to AP 11/1	
11	Hight Of Structure Above Ground And Below Ground Separately.	AP 10/1 :- Hight above ground= 37.5 m, Below ground = 3m. AP 11 :- Hight above ground=37.5m, Below ground = 3m.	
12	Sag Of ACSR PANTHER Conductor Size 30/3 .0mm AL+7/3 .0mm STEEL.		
13	Clearance Over Road	16 m&16.1m	
14	Height of Lower Lower Conductor Over Ground Level at Loc.	AP 1/1 (DD+6):- 19.7 AP 2 (DD+6):- 19.7	
15	Hight/Difference of Lower Conductor from level of SH/NH at Loc.		
16	Angle of Road Crossing	82°00'00"	
17	Distance From SH/NH Boundary From Centre Of Tower.	AP 10/1 :- 56.95 m. AP 11 :- 91.72 m.	
18	Perpendicular Distance from Center of Tower to Centre of Road	AP 10/1 :- 102.11m. AP 11 :-103.57 m.	
19	Protection of Assembly Line	Earthing in Both Tower.	
20	Foundation Type		
21	No.Of Stay Required	NA	
22	Min. factor of Safety		
23	Size Of Power Conductor	Size 30/3 .0mm AL+7/3 .0mm STEEL.DI -21.00mm,Weight-0974/kg/m Eart Wire 9.45mm,Weight=0.428/Kg/m,OPGW-12.22 mm.Dia Weight-0.451/kg/m	
24	Size of Earth Wire/OPGW		
25	Two Legs Of Tower Earthed	As per specification	
26	Plain paper Diagram	Profile Enclosed	
27	Earthing	Pipe Type	



M.P POWER TRANSMISSION LIMITED PACKAGE-I LIMITED

Detail of 132 KV DCSS Bahadurpur-Badgaon With ACSR Panther Conductor Transmission Line for overhead SH-27 Indore-Ichhapur Road crossing

Name of NH to be crossed by 132 KV DCSS Bahadurpur-Badgaon Transmission Line	SH-27 Indore-Ichhapur Road
Tower No.	AP-10/1-AP-11/0
Crossing Between Mile stone No.	KM Stone-14-15
Crossing Angle.	82°00'00"
Vertical Clearance between 132 Kv bottom conductor to Top surface of NH	14 Mtr.
Distance of 132 kv crossing tower AP-10/1 & 11/0 from Road	AP-10/1- 102.11 Mtr & AP-11/0 - 103.67Mtr.
Crossing Span.	205.75Mtr



MP POWER TRANSMISSION PKG-1 LTD.																		
132kV D/C TRANSMISSION LINE FROM BAHADURPUR TO BADGAON (ELEMENT NO.18)																		
TOWER SCHEDULE																		
SL. No.	Location No.	Type of Tower	Angle of Deviation	Span Length (m)	Section Length (m)	Cumulative change (m)	Reduced Level (m)	Wind Span (m)	Weight Span Hot (m)			Weight Span Cold (m)			Crossing Details	Existing	Noting	Village Name
									Left	Right	Total	Left	Right	Total				
1	10/3	DD +	9			7858.44	242.353	252.9	142.3	129.5	265.8	174.7	139.3	314.0		626534.4	2951548	MAHILANGA GAOIN
				206.75											2 Nos. LT Line, 11kV Line, Nala, PROPOSED STATE HIGHWAY-27			
2	AP 11	DD +	8	10°47'19"LT	405.75	7865.19	239.886	220.4	82.2	125.1	207.3	68.5	13° 0	197.4		626717.8	2351456	



M.P POWER TRANSMISSION PACKAGE-I LIMITED		
SH-27 Crossing Between KM Stone-14 - 15 of INDORE-ICHHAPUR Road for Construction of 132 kV DCSS Bahadurpur To Badgaon Transmission Line Between Angle Tower No AP-10/1 (DD+9) & AP-11/0 (DD+9).		
Name Of Transmission Line-132 KV DCSS Bahadurpur- Badgaon With ACSR Panther Conductor		
1	Situation of tge EHV Transmission line crossing on SH	INDORE-ICHHAPUR SH-27, KM Stone 14 -15
2	Site plan showing location of crossing(SH boundary) in reference to SH Mileage to be supplied on quadruplicate	Enclosed
3	Angle of crossing of Transmission line with the SH at crossing point	82°00'00"
4	The length of Span at the crossing and also those on either side of the crossing	Crossing Span 205.75 Mtr, From AP-10/1 to SH-Boundary- 56.95 mtr, & AP-11/0 to SH -Boundary-91.72 Mtr
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-10/1 DD+9 Angle Type Tower Loc-AP-11/0 DD+9(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 .	ACSR PANTHER -Diameter 21 mm,Unit Weight -974kg/m



7	Indicate whether 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 clause 2 above.	Enclosed drawing
9	System of supply (i.e voltage) frequency No. of phases .whether neutral is earthed or not	132kV, 50Hz, 3 phases, Earthwire/OPGW.
10	Height of the structure above ground and below ground separately	AP 10/1-Height above ground= 37.5m, Below ground - 3m. AP 11/0- Height above ground= 37.5, Below ground - 3m.
11	Height above ground level of (1) lowest conductor on insulator and (2) guard wire on bracket above ground level	Bottom Conductor From Road-14 Mtr, G-wire not required.
12	Height of the road level above ground level measured at the foot of the structure	Enclosed Drawing
13	Clearance of maximum 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 neutral system)	From Road/SH surface -14 Mtr.
14	Ultimate tensile stress of the steel wire used for guard for earth wire in tones per Sq Cm	NA



15	Approximate distance of each of the structure to the nearest SH (marked by pillars/fencing) measured along the alignment of the Transmission line.	AP 10/1-56.95 m. AP 11/0-91.72 m. Distance from SH boundry
16	Are the proposed structure is in SH boundary	NO. Both Tower are outside of SH Boundary. Privet land.
17	Are approved anticlimbing devices and warning notices provided on the structures erected	ACD and Danger 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 calculating the strength of structure)	Not required. Self supporting
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 danger 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 disturbance of road, ground or attachment that may be necessary.	Enclosed.

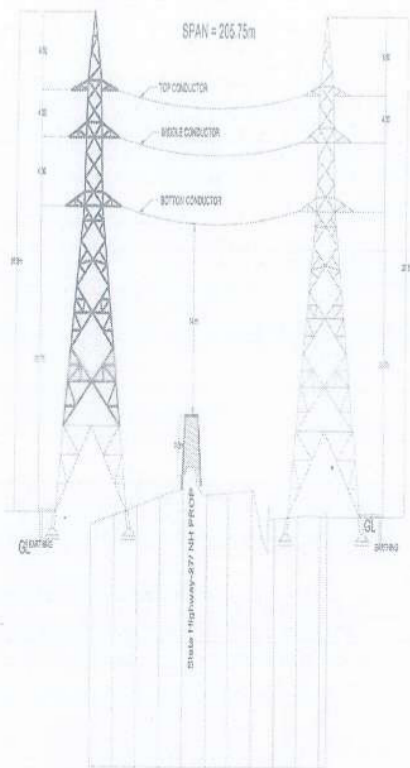


MP POWER TRANSMISSION ON PKG-1 LTD.																		
132kV D/C TRANSMISSION LINE FROM BAHADL RPUR TO BADGAON (ELEMENT NO.18)																		
TOWER SCHEDULE																		
SL No.	Location No.	Type of Tower	Angle of Deviation	Span Length (m)	Section Length (m)	Cumulative change (m)	Reduced Level (m)	Wind Span (m)	Weight span Hot (m)			Weight Span Cold (m)			Crossing Details	Easting	Northing	Village Name
									Left	Right	Total	Left	Right	Total				
1	10/1	DD + 9				7659.44	242.333	202.9	142.3	123.5	265.8	174.7	139.3	314.0	2Nos. LT Line, 11kV Line, Nala, PROPOSED STATE HIGHWAY-27	626534.4	2351549	
2	AP 11	DD + 9	10° 47' 19" LT			7865.19	239.886	220.4	82.2	125.1	207.3	66.4	131.0	197.4		626717.8	2351456	MANUSANGA GAON

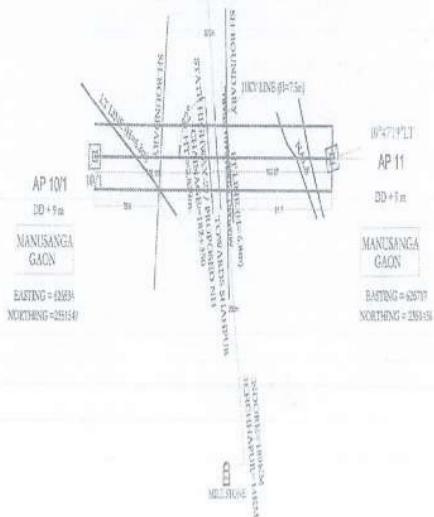

 Surveyor

 Manager





2000.00	254.0135	254.0135
2200.00	254.0135	254.0135
2400.00	254.0135	254.0135
2600.00	254.0135	254.0135
2800.00	254.0135	254.0135
3000.00	254.0135	254.0135
3200.00	254.0135	254.0135
3400.00	254.0135	254.0135
3600.00	254.0135	254.0135
3800.00	254.0135	254.0135
4000.00	254.0135	254.0135
4200.00	254.0135	254.0135
4400.00	254.0135	254.0135
4600.00	254.0135	254.0135
4800.00	254.0135	254.0135
5000.00	254.0135	254.0135






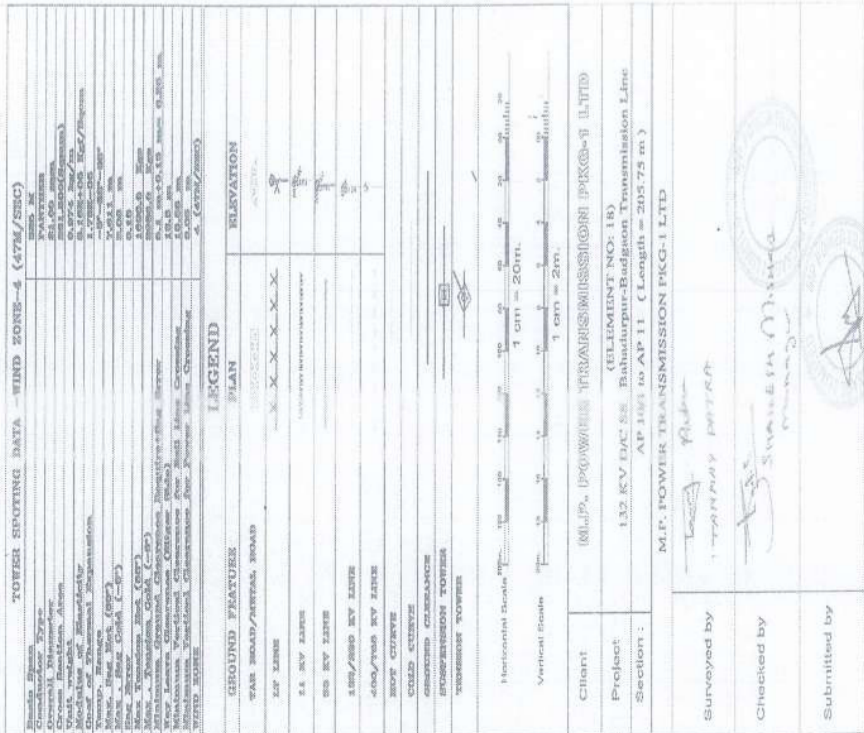
TOWER SPACING DATA - WIND TOWER-4 (47M/300)	
	305 M
	PANTHER
Overall Diameter	31.89 mm
Cross Section Area	281.800(Sqmm)
Conductor Type	0.874 kg/m
Modulus of Elasticity	0.180+06 Kg/Sqcm
Coeff of Thermal Expansion	1.70E-05
	-9°-58°-44°
Max. Sag Hot (80°)	7.611 m
Max . Sag Cold (-9°)	9.00 m
Temp. Range	0.15
Max Tension Hot (80°)	1600.0 Kgs
Max . Tension Cold (-9°)	2068.0 Kgs
Minimum Ground Clearance Required-Sag Error	6.1 m+0.16 m= 6.26 m
Way Leave Clearance (Eligter Side)	13.0 m
Minimum Vertical Clearance for Ball Line Crossing	16.50 m
Minimum Vertical Clearance for Power Line Crossing	3.05 m
	4 (77M/300)

PROPOSAL OF EE-27/ FOR PROPOSAL CROSSING IN BETWEEN LOCATION

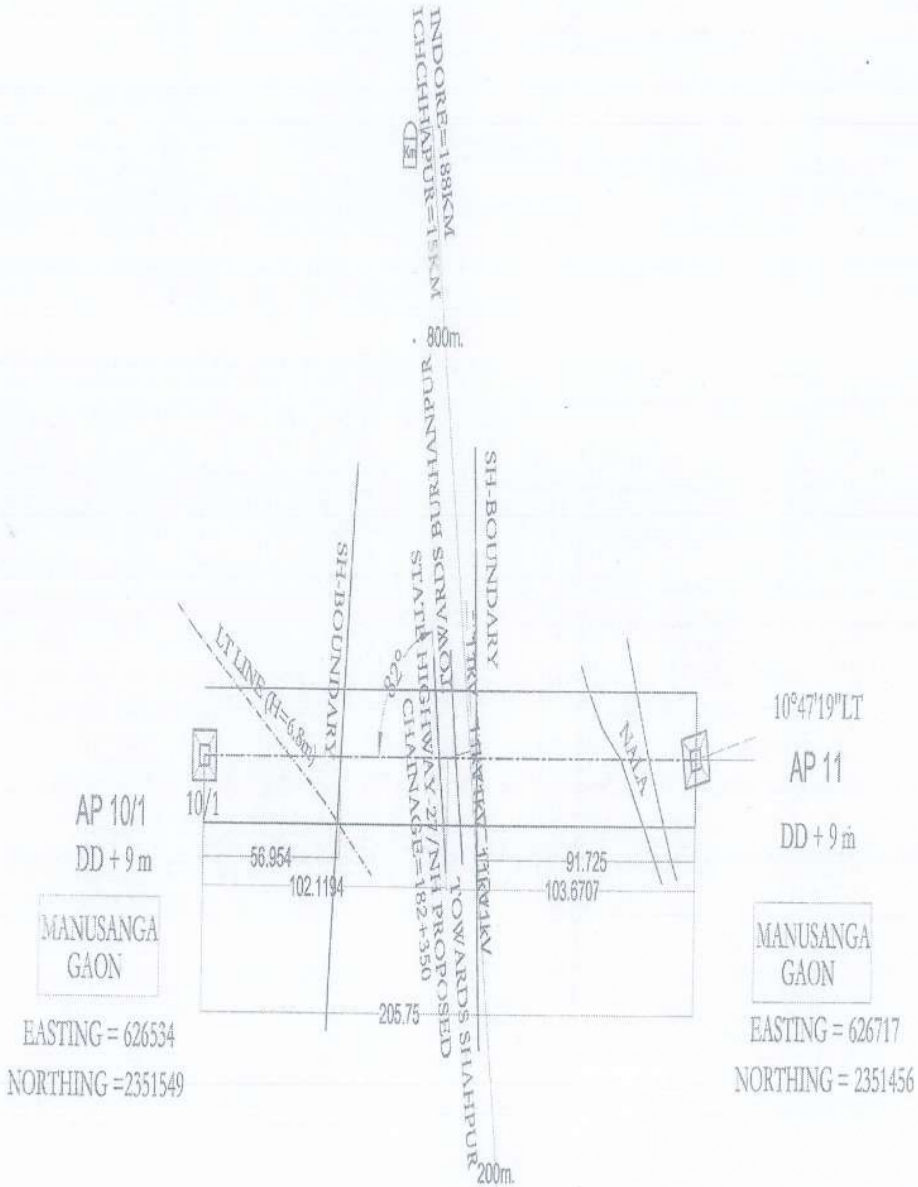
AP10/1 - AP11a KM STONE 14 -15



	M.P. POWER TRANSMISSION PER-1 LTD
PROJECT	(ELEMENT NO: 18) 132 KV D/C SS BANGALOREPUR-BAGLAIN Transmission Line
DRAWING TITLE	PLAN & VERTICAL CLEARANCE DRAWING OF PROPOSED NH CROSSING OVERHEAD : SECTION : AP10/1 - AP11

Surveyed by	Checked by	Submitted by
 TAWFIK ALKHATIB	 Shazleen Muneer Manager	



SLD OF 132kv D/C SS BAHADURPUR - BADGAON TRANSMISSION LINE CROSSING OVERHEAD
SH-27/ PROPOSED NH (ICHCHHAPUR - INDORE)



SURVEYED BY	CHECKED BY	SUBMITTED BY
 TANUJAY PATTAR	 Shrikanth Manna Manna	