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-2/167, अरेरा कॉलोनी, हबीबगंज रेल्वे स्टेशन के पास, भोपाल (म.प्र.) 462 016

E-2/167, Arera Colony, Near Habibganj Railway Station, Bhopal (M.P.)-462 016

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

भारतमाला
प्रगति के पथ पर अग्रसर
BHARATMALA
ROAD TO PROSPERITY

NHAI/RO-MP/Shiv/Guna Bypass/HTLine/132KV Line/2020/ 37560 Date: 04.01.2020

Invitation of Public Comments

Sub.: Construction Operation and maintenance of 2-lane Road from km 319.700 to Km 332.100 of NH-3 (GUNA Bypass section) in the State of Madhya Pradesh under (Phase IIIA) -**Permission for Crossing of overhead 132 KV line at Chainage 329+700 Km in Guna Bypass section of NH-3.**

Ref.: PD, PIU-Shivpuri letter no. 14530 dated 30.12.2019.

The Project Director, PIU-Shivpuri NHAI vide their letter no. 14530 dated 30.12.2019 has submitted the Proposal for Permission for Crossing of overhead 132 KV line at Chainage 329+700 Km in Guna Bypass section of NH-3..

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 (copy of application is enclosed) and the same should reach to below mentioned address till **01.02.2020** beyond which no comments will be considered.

The Highway Administrator
O/o Regional Officer
National Highways Authority of India
E-2/167, Arera Colony
Near Habibganj Railway Station
Bhopal (MP)-462016
E-mail ID: robhopal@nhai.org

This issues with the approval of Highways Administrator-cum Regional Officer, NHAI-Bhopal (MP).

(V.K.Kankane)
DGM (T)

Copy to:

(i) **The Senior Technical Director, NIC**, Transport Bhawan, New Delhi-110001 for uploading on Ministry's Website.
(ii) **The Project Director**, NHAI, PIU-Shivpuri for information please.
(iii) **The Chief Municipal Corporation, Shivpuri** for information.
(iv) **Madhya Pradesh Power Transmission Company Limited,** Executive Engineer Office, Auda Nirman Division-I, E 17-18, Mahalgaon, Gwalior (MP).

ANNEXURE-A(a)

DETAILS OF CONSTRUCTING 132KV GUNA - BHOURA FCFS TR. LINE ACROSS NATIONAL HIGHWAY 03 BETWEEN AP3 TO AP4

1	1.1	Name of company asking permission	M.P. Power transmission co. Ltd.
	1.2	Full address	EHT(C) DN.1 MPPTCL E-17 & 18 220 KV S/s Mahalgaon Campus, Behind New Collectorate Gwalior - 474011
	1.3	Telephone No. & Fax/Mob.	9425805145, 9425805316
	1.4	Details and purpose for Erecting Towers	Construction of 132 KV FCFS Guna - Bhoura Transmission line
	1.5	Any other details regarding overhead line	
		(a)Situation of crossing	Between proposed structure AP-3 & AP – 4
		(b)Distance of proposed structure from center of the road	AP-3 - 95.00 M AP-4 – 65.00 M
		(c)Span at the crossing	Crossing span – 160.00 M
		(d)Angle of crossing	90°0′0″
		(e) Structure used to cross the existing NH and its devation Angle	AP-3 – MD60+5 49°38′11″ LT AP-4 -- MD60+10 37°34′51″ RT
2		Detail regarding road alignment	Drawing attached
	2.1	Name of Road	Agra – Mumbai (Guna bypass NH-3)
	2.2	Category of Road	NH -03
	2.3	Width of the Road	11 M
	2.4	Black topped carriage way width	Under construction
	2.5	Road boundary	One side – 15 M (From center of road) Other side – 15 M (From center of road)
	2.6	All these detail are to be shown on the Drawing	Yes shown in Drawing
	2.7	Location of 132KV Guna - Bhoura transmission FCFS line	Between AP-3 & AP -4
3		Details to be supplied on layout drawing (4 copies)	Drawing in 1 copies attached
4		Ground clearance under maximum sag condition between lowest conductor of Proposed line and existing National Highway	11.20M Against the stipulation 10.00M (From Bottom conductor to top of BT Surface of NH)

Assistant Engineer
E.H.T. Construction Div-I
MPPTCL. Gwalior

Executive Engineer
E.H.T. Const. Dn.-I
MPPTCL Gwalior

5		Conductor used to cross the National Highway with complete Technical Details of Conductor	Conductor Detail :- i. Name : ACSR Panther ii. Diameter: 21.00mm iii. Cross- sectional area: 251.5mm iv. Weight of conductor : :974kg/km v. Modulas of Elasticity8155kg/ sqmm vi. Ultimate Tensile strength: 89.67kn vii. Co.- efficient of linear expension:17.80×10^{-6} /deg C
6		CERTIFICATION	
	6.1	This is to certify that no. Govt. Road shall be occupied by Bhopal Dhule Transmission Company Ltd except For the purpose of Electric Line across or along the road.	Confirmed
	6.2	This is to certify that the work shall be done in accordance with Govt. Rules and Regulations.	Confirmed
	6.3	This is to certify that all required cost and fees as per Rules and Regulation of the Govt. will be deposited timely.	Confirmed

Date & Place :-

Executive Engineer
EHT (C) Dn. I MPPTCL Gwalior

Assistant Engineer
E.H.T. Construction Div-I
MPPTCL. Gwalior

ANNEXURE –A(b)

INFORMATION TO BE FURNISHED ALONGWITH THE PROPOSAL FOR CONSTRUCTING 132KV GUNA - BHOURA TRANSMISSION FCFS LINE ACROSS THE NATIONAL HIGHWAY NO- 03 B/W AP-3 TO AP-4

1	Exact location of crossing with chainage of national highway and Right of way of NHAI at crossing point		National Highway 03 between KM AP-3 to AP-4 at Span 160.00 M
2	Methodology of crossing in NH.		Stringing of Overhead conductor by T & E
3	Crossing details : plan & cross section		Attached
4	Route index plan along the showing following		
	(a) Existing ROW of NHAI/NH land		Attached
5	Undertaking that you shall take care of existing services lines that have been laid previously		Yes Attached

Date :-

Place :-

Executive Engineer
EHT (C) Dn.I MPPTCL Gwalior

Assistant Engineer
E.H.T. Construction Div-I
MPPTCL Gwalior

Annexure B(a)

M.P. POWER TRANSMISSION CO. LTD
132KV Guna – Bhoura FCFS transmission line
TOWER SCHEDULE AP-3 TO AP-4

s.n.	Angle Point no	Type of Tower		Angle of Deviation	Span Length (m)	Wind Span (m)	Weight Span Hot			Weight Span Cold			Crossing Details
							Left	Right	Total	Left	Right	Total	
					295.00								33KV line
1	AP-2	MD60+	10			185.00	173.8	164.4	338.2	187.1	193.2	380.3	
					215.00								
2	AP-3	MD60+	5	49°38'11'' LT		222.5	50.6	-33.6	17.00	21.8	-88.7	-66.9	
					160.00								03 Nos. 33KV line NH03
3	AP-4	MD60+	10	37°34'51'' RT		207.5	183.6	145.4	329.00	238.7	168.5	407.20	
					200.00								
4	AP-5	MD60+	6			160.00	54.6	31.5	86.10	31.5	4.4	35.90	
					170.00								Railway Crossing

Assistant Engineer
E.H.T. Construction Div-I
MPPTCL. Gwalior

Executive Engineer
EHT (C) Dn.I MPPTCL Gwalior

TOWER SPOTTING DATA

FOR

132 KV FCFS TOWER TYPES

MD0 / MD30 / MD60

PROJECT: 132KV GUNA - BHOURA FCFS Tr. LINE

CONTRACTOR:

DESIGNER: M/S LARSEN & TOUBRO LTD

(On behalf of MPPTC)

Document No.	Date	Rev no.	Remarks if any	Desn by	STATUS
C0945/TS/132/Dcal-01	05/02/2014	0		VINITA/MKK	

Assistant Engineer
E.H.T. Construction Div-I
MPPTCL Gwalior

Executive Engineer
E.H.T. Const. Dn.-I
MPPTCL Gwalior

NOTE:-

1. Minimum ground clearance required = 6100mm+150 mm as Sag Error
2. (i) Type of conductor - ACSR Panther
   (ii) Type of ground wire OPGW (48 fibre)
   (iii) Reliability Level :- 1
   (iv) Terrain category -2
   (v) Wind Zone -2
   (vi)Design Wind Pressure -701 N/M^2
   (vii) Wind pressure on conductor: 133.6 kg/m^2
   (viii) Wind pressure on groundwire 169.4 kg/m^2
   (ix) Tension @ 32 deg. Full wind::
   conductor: 3952kg
   groundwire:2220kg
   Tension @ 32 deg.75% full wind::
   conductor: 3323kg
   groundwire:1660kg
3. Tower Type — Type of Insulator
   MD0 — Suspension
   MD30 — Tension
   MD60 — Tension

   Normal Span = 350 M
   Wind Span = 350 M BWC 210 M

Assistant Engineer
E.H.T. Construction Div-I
MPPTCL Gwalior

Executive Engineer
E.H.T. Const. Dn.-I
MPPTCL Gwalior

	SAG TENSION CALCULATION	

MADHYA PRADESH POWER TRANSMISSION CO. LTD.

LINE PYPE :- 132KV Guna – Bhoura FCFS transmission line under M.P. power transmission co. LTD Gwalior.

BASIC SPAN

CHARACTERISTICS OF WIRES	CONDUCTOR	GROUND WIRE
NAME	ACSR PAIMTHER	OPGW
Strands in Aluminum .....Nos	30/3mm	-
Strands in Steel.....Nos	7/3mm	-
Diameter.....cm	21.00mm	1.23
Area .....sq.cm	261.5mm²	0.6166
Unit Weight.....kg/m	974kg/km	0.49
Ultimate Tensile Strength.....kg	89.67kn	6526
Modulus of Elastacity ..... kg/sq.cm	8155kg/mm²	1386800
Coefficient of Linear Expansionper Deg c	17.80×10^{-6}/deg.C	0.000014
Full Wind Pressure .....kg/sq.M	133.6	169.4
Exposure Facror	1	1

CONDUCTOR:- ACSR PANTHER

SR NO	TEMP	WIND FACTOR	ICE THK (CM)	WIND PRESSURE	TENSION	SAG(M)	F.O.S. AVAILABLE	F.O.S. REOD
1	0	0	0	0	3915	11.142	4.011	
2	0	0.36	0	48	4745	-	3.310	1.428
3	32	1.00	0	138	7164	-	2.192	1.428
4	32	0.75	0	100	5963	-	2.633	
5	32	0	0	0	3455	12.626	4.545	4.545
6	85	0	0	0	2934	14.665	5.352	

CONDUCTOR:- ACSR OPGW

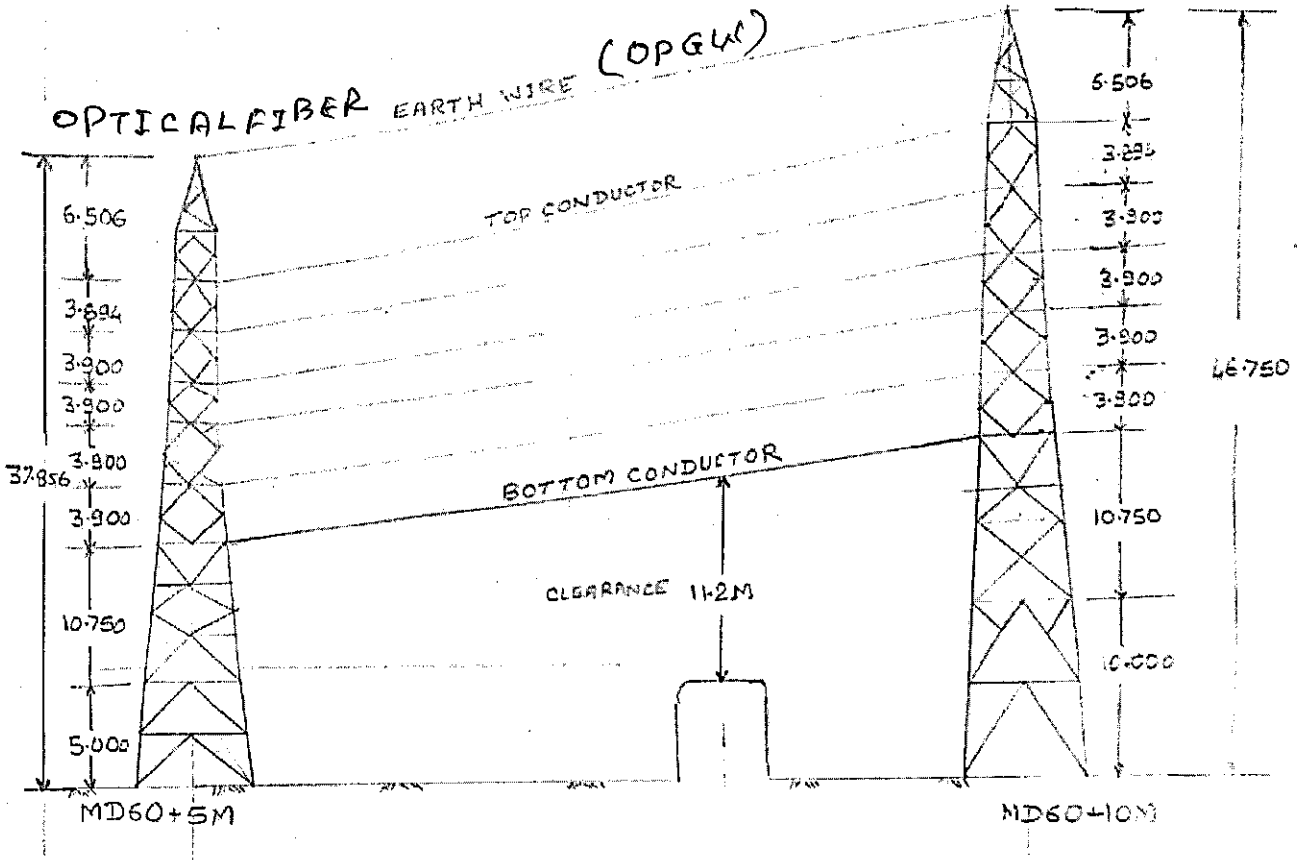
SR NO	TEMP	WIND FACTOR	ICE THK (CM)	WIND PRESSURE	TENSION	SAG(M)	F.O.S. AVAILABLE	F.O.S. REOD
1	0	0	0	0	1320	7.424	4.944	
2	0	0.36	0	61	1921	-	3.397	1.428
3	32	1.00	0	169	3184	-	2.050	1.428
4	32	0.75	0	127	2652	-	2.461	
5	32	0	0	0	1148	8.358	5.685	5.000
6	53	0	0	0	1058	8.895	6.167	

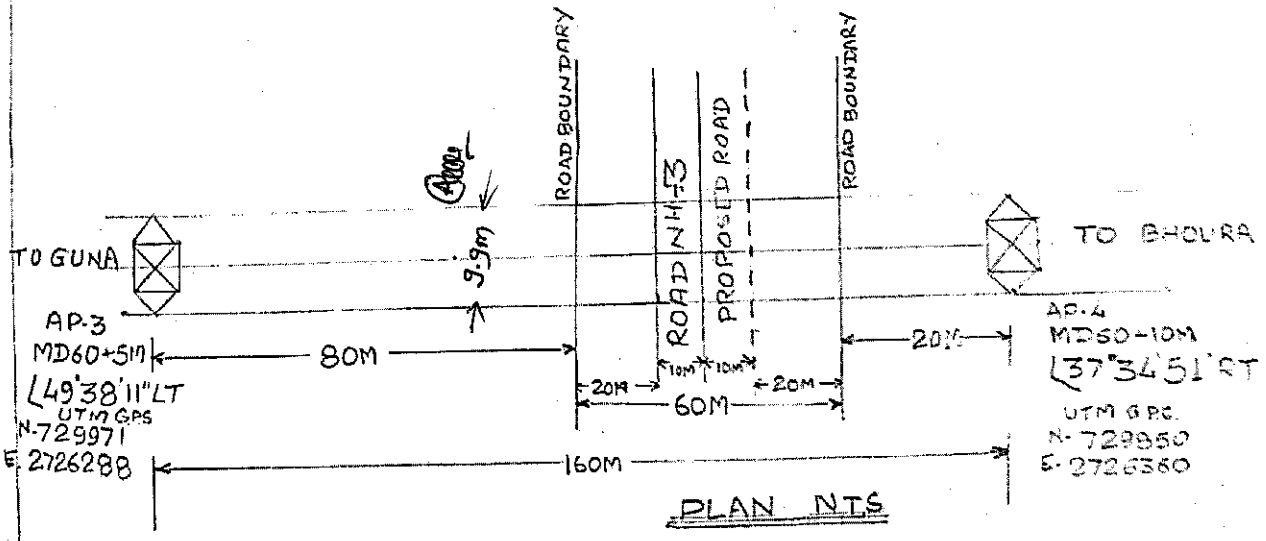
Assistant Engineer
E.H.T. Const. Dn.-I
MPPTCL Gwalior

Executive Engineer
E.H.T. Const. Dn.-I
MPPTCL Gwalior

PROPOSAL FOR OVER HEAD CROSSING OF NH-3 NEAR VILLAGE BAMORI - KUSHMODA TAHSIL GUNA DISTT. GUNA BY 132 KV DCSS GUNA - BHOURA AND 132 KV GUNA - ESAGARH DCSS LINE ON THE MULTY CIRCUIT TOWER

SCALE - N.T.S.





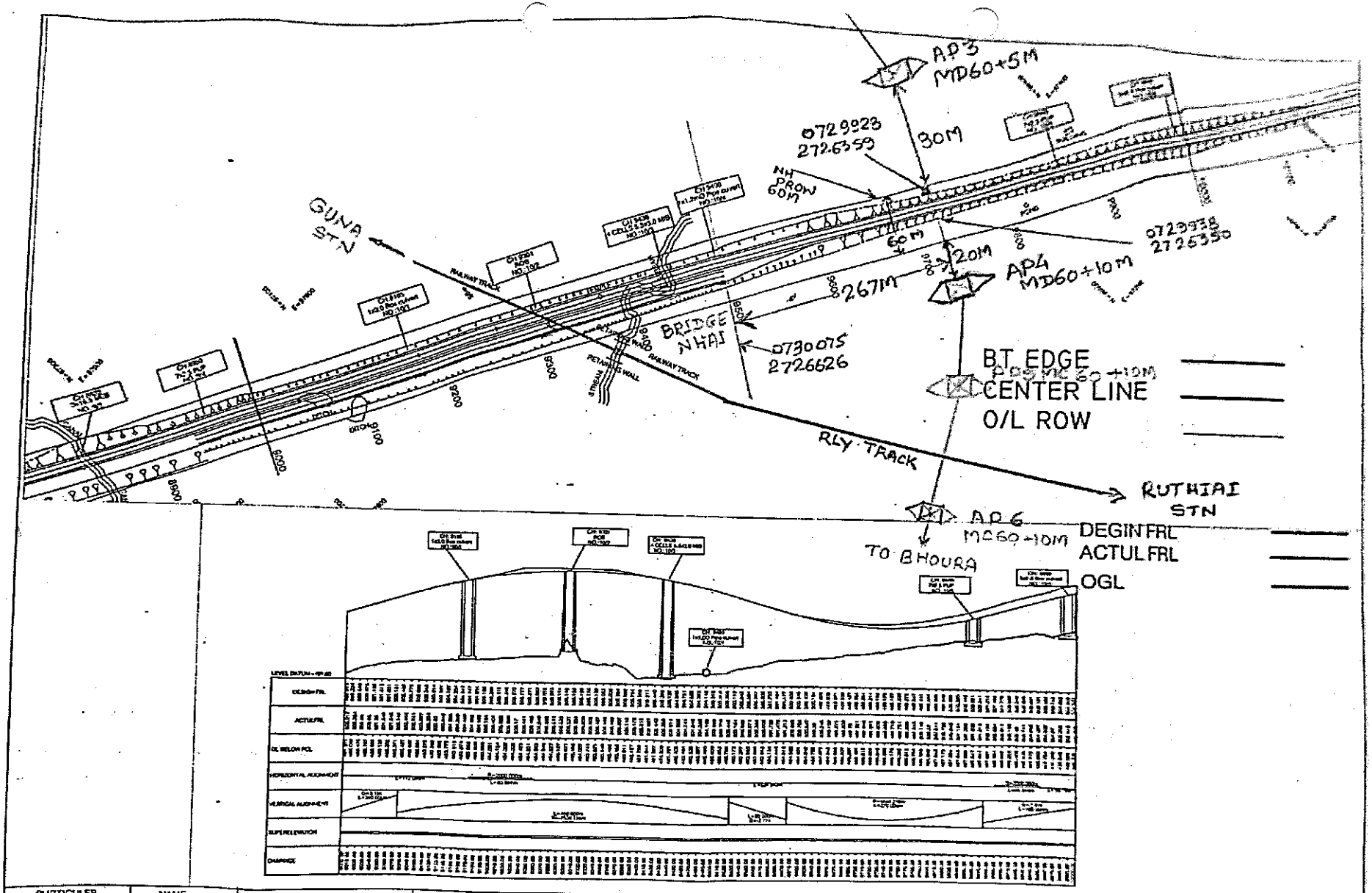
PLAN NTS

Dongre
Surveyor
EHT-C, DN-I
GWALIOR

Assistant Engineer
E.H.T. Construction Div-I
MPPTCL. Gwalior

TEAM FABER
SHIVPURI-GUNA PACKAGE
Aarvee Associates Architects
& Consultants Pvt. Ltd.

Executive Engineer
E.H.T. Const. Dn.-I
MPPTCL Gwalior



PURTICULER	NAME	SIGNATURE
DRAWN BY	SANJAY GOUR	
CHECKED BY	SANJEEV NAYAK	
SUBMMITED BY	P. MODANI	

Scale : N.T.S

Concessionaire: GUNA INFRASTRUCTURE LTD.
Site Office : 4, I.I.I.G. Colonym Guna, Ph. No. 07543-481606 Project Office : 206, Morya Centre, 15 Raza Course Road, Indore Tel : 0731 - 4045172, 73

Consultant: aarvee associates architects engineers & consultants pvt. ltd.

Client: NATIONAL HIGHWAYS AUTHORITY OF INDIA

GUNA BYPASS FROM km 319.700 TO km 332.110 OF NH IN MADHYA PRADESH.

TITLE: PLAN & PROFILE

Surveyor

Assistant Manager
Engg. Consultancy Div.
MPRTCL Gwalior

Executive Engineer
E.H.T. Const Div.
MPRTCL Gwalior

TEAM LEADER
SHIVPURI-GUNA PACKAGE-1
Aarvee Associates Architects Engineers & Consultants Pvt. Ltd