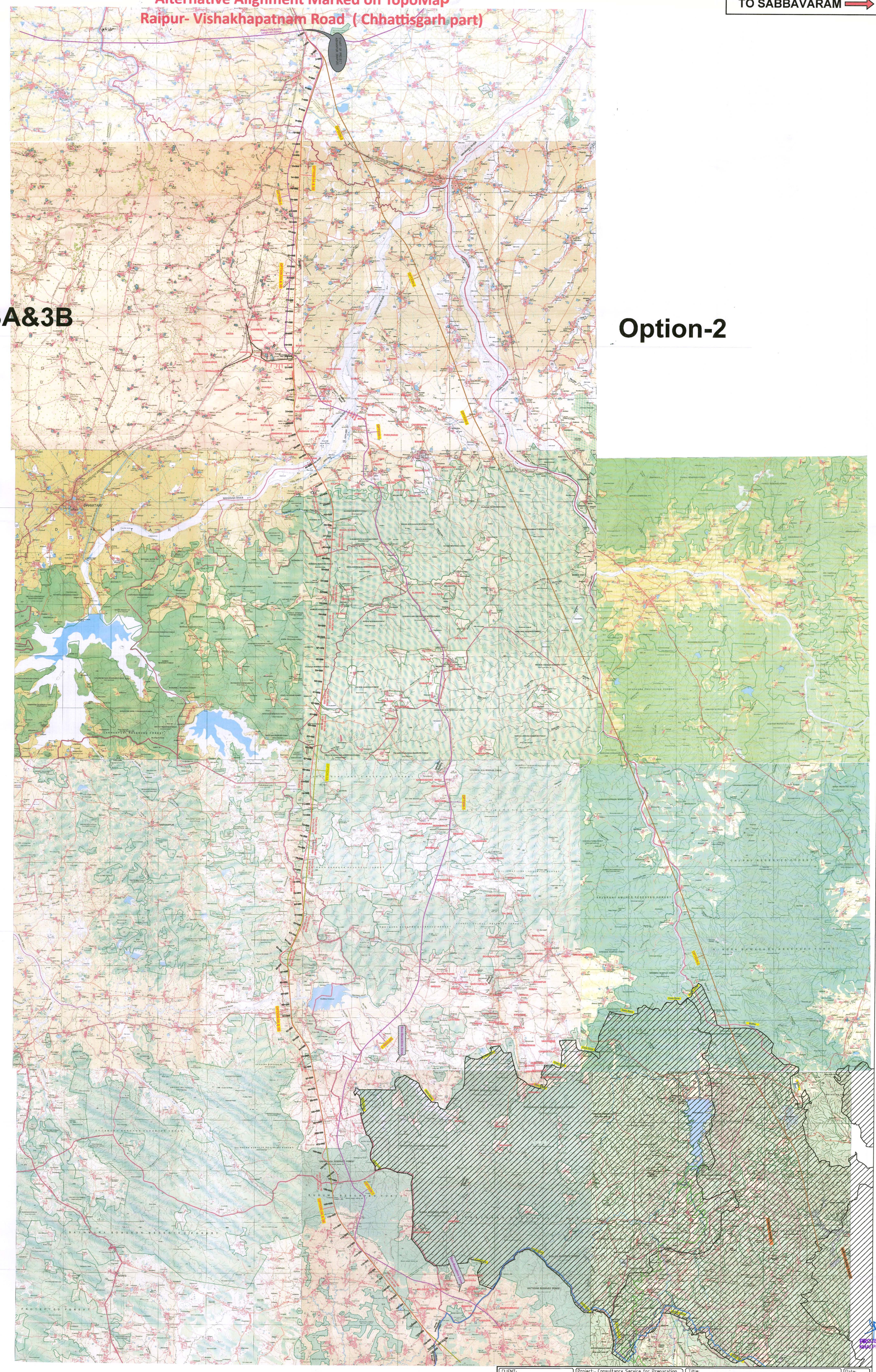
TO RAIPUR

Alternative Alignment Marked on TopoMap

Raipur- Vishakhapatnam Road (Chhattisgarh part)

TO SABBAVARAM



PROJECT DIRECTOR
NHAI PIU,Dhamtari(C.G.)

CLIENT:- National Highways Authority of India (Ministry of Road Transport & Highways, Government of India) G - 5 & 6, Sector - 10, Dwarka, New Delhi - 110075	Project:- Consultancy Service for Preparation of DPR for Development of Economic Corridors, Inter Corridors, Feeder Routes and Coastal Roads to Improv the Efficiency of Freight Movement in India (Lot-3/Odisha & jharkhand/Package-2) Length: 463.111Km	Title: ALIGNMENT PLAN ON TOPO SHEET LENGTH IN CHHATTISGARH 124+661 Km.	Date: JAN, 2020	
		Scale: AS SHOWN / Size: A2	Drg. No: RAIPUR-SABBAVARM/HW/	Sheet: 01 OF 01 / Rev: R0 R0

Summarized details of Alternative study

Sl. No	Description	Option-1 (Brown & Green Field)	Option-2 (Green Field)	Option-3A (Green Field)	Option-3B (Green Field)
1.	Total Design Length (Km)	132	118.8	123.23	124.661
2.	Plain Terrain (Km)	126	111.8	114.73	116.661
3.	Hilly Terrain (Km)	6	7	8.5	8
4.	Brown Field (Km)	18.740	-	-	-
5.	Green Field (Km)	113.26	118.8	123.23	124.661
6.	Wild life Sanctuary Length (Km)	NA	28	NA	NA
7.	Road length in Forest (Km)	47.81	59.98	48.175	47.88
8.	Land Required (Ha)	720	622	670	705.83
9.	Total Forest (Ha)	209.502	264.359	232.83	228.0325
10.	Land Cost (Cr.)	219.04	153.45	200.45	208.91
11.	R&R Cost (Cr.)	19.80	17.82	18.48	18.70
12.	Environment & Forest Cost (Cr.)	135.79	128.91	127.43	128.02
13.	Utility Cost (Cr.)	19.80	17.82	18.48	18.70
14.	Tunnel Length (Km)	NA	NA	NA	2.7
15.	Tunnel Cost (Cr.)	NA	NA	NA	810
16.	Viaduct Length (Km)	1.1	0.5	0.8	2
17.	Viaduct Cost (Cr.)	130	59.08	94.53	236.00
18.	Total Civil Cost (Cr.)	2437.00	2144.00	2253.00	3161.00
19.	Centages (Cr.)	530.64	378.11	359.94	304.12
20.	Per Km Civil Cost (Cr.)	18.46	18.04	18.28	25.36
21.	Total Project Cost Including all (Cr.)	3124.46	4929.17	2542.67	406816
22.	Per Km Cost Including All (Cr.)	24.55	23.76	24.31	32.62
23.	Design Speed(Kmph)	50 Kmph for Hilly Terrain & 100 Kmph for Plain Terrain	100 Kmph for Hilly Terrain & 100 Kmph for Plain Terrain	100 Kmph for both Hilly & Plain Terrain	100 Kmph for both Hilly & Plain Terrain
24.	Achieved Riding Speed (Kmph)	50	70	70	70

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25.	Travel Time (Hrs)	2.7	1.7	1.8	1.8
26.	Remarks	Design Speed is less in Hilly Terrain	Design Speed is less in Hilly Terrain	Forest Length is more than the Option-3B	Forest Length is less than the Option 3A
27.	Recommendation	Not recommended due to total & forest length is more than the other options	Not recommended due to more length in forest & high cost also. Near CG & OD border the alignment passes through tiger reserve forest in CG portion	Not recommended due to forest length is more than the Option-3B	Recommended due to less forest length and technical feasibility

Most Suitable option is 3B and selected for development of project road.

28/06/21

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