Comparison of Alignment				
S.No.	**Description**	**Widening & Improvement of Existing Alignment**	**Option on LHS of Existing Highway**	**Option on RHS of Exiting Highway**
Technical Aspects				
1	Length in Kms	**114.800**	**120.500**	**126.300**
2	Terrain	**Plain/Rolling/Hilly**		
3	Design Speed in KMPH	80-100	80	100
4	Railway Crossing	Nil	Nil	Nil
5	Major & Minor Bridge	4 Major & 38 Nos	5 Major & 40 Minor	5 Major & 44 Minor
Safety Aspects				
6	**Horizontal alignment as per IRC SP:73:2018 "Two Laning Manual)**	**For improvement of Horizontal alignment**		
7	**Vertical Geometric as per IRC SP:73:2018 "Two Laning Manual)**	**For improvement of Vertical alignment**		
Environmental Aspects				
8	Forest Area **(Sarguja & Balrampur)**			
A	Reserve Forest	**6.376**	**9.10**	**11.30**
B	Protected Forest	**88.261**	**93.30**	**98.50**
C	Revenue Forest	**7.687**	**8.94**	**7.85**
9	**Forest diversion to be Required**	**102.234**	**111.34**	**117.65**
10	Tree felling	**29636 Nos**	**33465 Nos**	**35543 Nos**
11	Protected Areas involved (WLS, NP, BR etc.)	Nil	Nil	Nil
12	Merits / Demerits of Alignment	1. Horizontal geometric will be as per IRC SP:73 i.e. 80-100KMPH	1. Horizontal geometric will be as per IRC SP:73 i.e. 80-100KMPH	1. Horizontal geometric will be as per IRC SP:73 i.e. 80-100KMPH
		2. Vertical geometric will be achieved as per IRC SP:73 i.e. 3.3%	2. Vertical geometric may not be achieved as per IRC SP:73 i.e. 3.3%	2. Vertical geometric may not be achieved as per IRC SP:73 i.e. 3.3%
		3. Less cutting & filling will be required	3. Huge cutting & filling will be required	3. Huge cutting & filling will be required
		4. Forest diversion required as per 30m ROW	4. Forest diversion required more than to other option	4. Forest diversion required more than to other option
		5. Traffic Diversion not possible during construction.	5. Traffic Diversion possible during construction.	5. Traffic Diversion possible during construction.
13	Tentative cost in Crores	1. Civil Construction - 617.23	1. Civil Construction - 638.13	1. Civil Construction - 642.123
		2. Forest Diversion cost - 30.87	2. Forest Diversion cost - 31.90	2. Forest Diversion cost - 32.11
		Total - 648.10	**Total - 670.03**	**Total - 674.23**
14	Conclusion	Most Feasible alignment as per **Technical, Safety & Environmental aspects**	The alignment on LHS side is not feasible due to Maximum Hill cutting & Forest Area	The alignment on RHS side is not feasible due to Maximum Hill cutting & Forest Area

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