

Name of the Work- Construction of Bungidhar-Mehalchuri-Bachuwan Motor Road KM12 to Kolani Motor Road under PMGSY

Comparison between identified alignments

Sl. No.	Variables	Alignment No-1	Alignment No-2				
1	Topography	Mountainous	Mountainous				
2	Length of Road	5.100 km	5.610km				
3	Bridging requirement No. and Length	01	01				
4	Geometric						
	(a) Gradients	1:20	1:20				
	(b) Curves, H.P Bends	03 Numbers of H.P. Bends	05 Numbers of H.P. Bends				
5	Existing Means of communication, mule path, jeep, Tracks etc.	By mule path	By mule path				
6	Right of way, bringing out construction on account of built up areas, monuments and other structures.	Right of way is available for carrying out the construction work. There are no built up area, monuments or other important structures along this alignment	Right of way is available for carrying out the construction work. There are no built up area, monuments or other important structures along this alignment				
7	(a) Terrain & Soil Condition.	The terrain is hilly and the soil is a mix of Earth and Boulders, Soft Rock and Hard Rock.	The terrain is hilly and the soil is a mix of Earth and Boulders, Soft Rock and Hard Rock.				
	(i) Cliffs and gorges.	(i) None	(i) None				
	(ii) Drainage characteristics of the area including susceptibility to flooding .	(ii) The natural Drainage characteristics of the area is good and there is no susceptibility to flooding	(ii) The natural Drainage characteristics of the area is good and there is no susceptibility to flooding.				
	(iii) General elevation of the road indicating maximum and minimum height negotiated by main ascends and descends.	(iii) The General elevation of the road is 1400 m. The elevation at the starting point of the road is 1300 m and the elevation at the end point of the road is 1500 m. Thus the road achieves a height of 200 m.	(iii) The General elevation of the road is 1450 m. The elevation at the starting point of the road is 1300 m and the elevation at the end point of the road is 1500 m. Thus the road achieves a height of 200 m.				
	(iv) Variations extant and types.	30 / 100 (Attached after comprative)	30 / 100 (Attached after comprative)				
8	Climate Condition:						
	(a) Temperature Monthly max. & min. reading.	(a) Temperature Monthly max. & min. reading (Avg. data of 12 years)		(a) Temperature Monthly max. & min. reading (Avg. data of 12 years)			
		Month	Temperature (in °C)		Month	Temperature (in °C)	
			Max.	Min.		Max.	Min.
		January	16	-1	January	16	-1
		Feb.	18	7	Feb	18	7
		March	24	13	March	24	13
		April	30	18	April	30	18
		May	35	20	May	35	20
		June	36	25	June	36	25
		July	32	20	July	32	20
		August	30	23	August	30	23
		September	30	21	September	30	21
		October	29	17	October	29	17
November	25	12	November	25	12		
December	18	-1	December	18	-1		

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खण्ड-कनप्रयाग

Sl. No.	Variables	Alignment No-1	Alignment No-2
	(b) Rainfall data average annual peak intensities monthly distribution (to the extent available).	(b) Rainfall data average annual peak intensities monthly distribution	(b) Rainfall data average annual peak intensities monthly distribution
		Month	Average Rainfall Data (in mm)
		January	74
		Feb.	76
		March	77
		April	36
		May	48
		June	140
		July	322
		August	271
		September	150
		October	66
		November	12
		December	33
	(c) Snowfall data average annual peak intensities monthly distribution (to the extent available).	(c) Snowfall occurs in the month of December and January upto 15 cm in depth on an average.	(c) Snowfall occurs in the month of December and January upto 15 cm in depth on an average
	(d) Wind direction and velocities.	(d) Owing to the nature of terrain local affect are pronounced and when the general prevailing winds not too strong to mask these effect, there is a tendency for diurnal reversal of winds, the flow being anabatic during the day and katabatic at night, the latter being of considerable force.	(d) Owing to the nature of terrain local affect are pronounced and when the general prevailing winds not too strong to mask these effect, there is a tendency for diurnal reversal of winds, the flow being anabatic during the day and katabatic at night, the latter being of considerable force.
	(e) Fog Condition.	(e) Generally there are no fog conditions in the area. However, during the month of December and January, slight foggy conditions prevail during night, with clear sky in the day.	(e) Generally there are no fog conditions in the area. However, during the month of December and January, slight foggy conditions prevail during night, with clear sky in the day.
	(f) Exposure to sun.	(f) The site is exposed to sun throughout the year.	(f) The site is exposed to sun throughout the year.
	(g) Unusual weather condition like cloud burst etc.	(g) There is no record of unusual weather condition like cloud burst in the area where the site is located.	(g) There is no record of unusual weather condition like cloud burst in the area where the site is located.
9	Facilities resources.		
	(a) Landing ground.	(a) None	(a) None
	(b) Dropping Zone.	(b) None	(b) None
	(c) Food stuffs.	(c) Haldi, Adrak, Mirch, Lehsoon, Dhan, Ghehun, Aloo etc.	(c) Haldi, Adrak, Mirch, Lehsoon, Dhan, Ghehun, Aloo etc.
	(d) Labour local availability and need for import.	(d) Local labour is available for construction work.	(d) Local labour is available for construction work.

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Sl. No.	Variables	Alignment No-1	Alignment No-2
	(e) Construction material (Timber, Bamboo, Sand, Stone, Shingle etc. extent of their availability and lead involved.	(e) Stone required for the construction work shall be made available locally as it shall be obtained from hill side cutting. However, sand required for the construction work shall be procured from the approved quarry with a distance of 30 km.	(e) Stone required for the construction work shall be made available locally as it shall be obtained from hill side cutting. However, sand required for the construction work shall be procured from the approved quarry with a distance of 30 km.
10	Value of land, agricultural land, irrigated land, built up land, forest land etc.	Value of the land required for the construction of the road in this alignment is as under- - Private land, 2.055 hectare @ Rs. 2100000= Rs. 4,315,500 - Forest Land, 0.18 hectare @ Rs. 9,35,000= Rs. 168,300 Thus total value of land = Rs. 4,483,800.00	Value of the land required for the construction of the road in this alignment is as under- - Private land, 1.530 hectare @ Rs. 2100000= Rs. 3,213,000 - Forest Land, 0.63 hectare @ Rs. 9,35,000= Rs. 589,050 Thus total value of land = Rs.
11	Approximate Const. Cost	Rs. 44.84 lacs	Rs. 38.02 lacs
12	Access point indicating possibility of induction of equipment	Access point available for induction of equipment	Access point available for induction of equipment
13	Period required for construction.	12 months	12 months
14	Strategic Consideration.	Deployment of skilled manpower and efficient equipment / machinery shall be made for completion of the project.	Deployment of skilled manpower and efficient equipment / machinery shall be made for completion of the project.
15	Important villages, towns and markets centers to be connected.	The road shall provide connectivity to Village- Kolani with a population of 305 numbers	The road shall provide connectivity to Village- Kolani with a population of 305 numbers
16	Recreational potential.	Nil	Nil
17	Economic Factors:		
	(a) Population served by the alignment.	(a) 305 numbers	(a) 305 numbers
	(b) Agriculture and economic potential of the area.	(b) Transportation of the cultivated crops by mechanical means (i.e., through road) shall enhance the economical condition of the people residing in this area. Potential of the development of animal husbandry.	(b) Transportation of the cultivated crops by mechanical means (i.e., through road) shall enhance the economical condition of the people residing in this area. Potential of the development of animal husbandry.
18	Other major development projects being taken up electric projects etc.	None	None
19	(i) Misc. Such as camping sites	(i) Camping sites to be located along the alignment of the road.	(i) Camping sites to be located along the alignment of the road.

Assistant Engineer

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Sl. No.	Variables	Alignment No-1	Alignment No-2
	(ii) Law and other problem	(ii) There is no significant law and order problem in the area and the local administration takes care of such matters.	(ii) There is no significant law and order problem in the area and the local administration takes care of such matters.
	(iii) Royalty	(iii) Royalty is paid to the Revenue Department.	(iii) Royalty is paid to the Revenue Department.
	(iv) Availability of contractors for collection and carriage of construction material	(iv) Available	(iv) Available
	(v) Working period available for construction of work.	(v) 09 months in a year	(v) 09 months in a year
20	Total No. of trees to be removed.	370 numbers	Approximately 412 numbers.
21	Average Density of forest cover.	0.2 (Dense Forest)	0.2 (Dense Forest)
22	Total No. of Merits	16	11
23	Total No. of Demerits	05	10

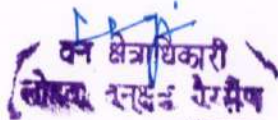
Note- Colour filled Cell is the de-merit of the alignment whereas no fill is the merit of the alignment
RECOMMENDATIONS:

Alignment no. -1 is Recommended for approval being more economical, useful & technically feasible


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वन क्षेत्राधिकारी
सोहरा रनक्षेत्र

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