

Name of the Work- Construction of Tharali kurad motor road (KM-15) to Gumad Lagga Gerud Link Motor Road under PMGSY

Comparison between identified alignments

Comparison between Recommended Alignment							
Sl. No.	Variables	Alignment No-1		Alignment No-2			
1	Topography	Mountainous		Mountainous			
2	Length of Road	3.00 km		4.50 km			
3	Bridging requirement No. and Length	Nil		Nil			
4	Geometric						
	(a) Gradients	1:20		1:16			
	(b) Curves, H.P Bends	02 numbers of H.P. Bends		04 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 1475 m. The elevation at the starting point of the road is 1555 m and the elevation at the end point of the road is 1405 m. Thus the road achieves a fall of 150 m.		(iii) The General elevation of the road is 1450 m. The elevation at the starting point of the road is 1525 m and the elevation at the end point of the road is 1420 m. Thus the road achieves a fall of 105 m.			
	(iv) Variations extant and types.	50 / 100 (Attached after comprative)		50 / 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	18	-1	January	18	-1
		Feb.	22	7	Feb.	22	7
		March	27	13	March	27	13
		April	33	18	April	33	18
		May	35	20	May	35	20
		June	32	21	June	32	21
		July	31	21	July	31	21
		August	30	23	August	30	23
		September	30	21	September	30	21
October	29	17	October	29	17		
November	26	12	November	26	12		
December	21	-1	December	21	-1		

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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)	Month Average Rainfall Data (in mm)
		January 74	January 74
		Feb. 76	Feb. 76
		March 77	March 77
		April 36	April 36
		May 48	May 48
		June 140	June 140
		July 322	July 322
		August 271	August 271
		September 150	September 150
		October 66	October 66
		November 12	November 12
		December 33	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, 0.720 hectare @ Rs. 26,50,000= Rs. 1,908,000.00 - Reserve Forest Land, 1.825 hectare @ Rs. 9,35,000= Rs. 17,06,375.00 Thus total value of land = Rs. 3,614,375.00	Value of the land required for the construction of the road in this alignment is as under- - Private land, 1.080 hectare @ Rs. 26,50,000= Rs. 2,862,000.00 - Reserve Forest Land, 1.89 hectare @ Rs. 9,35,000= Rs. 1,767,150.00 Thus total value of land = Rs. 4,629,150.00
11	Approximate Const. Cost.	Rs.200.00 lacs	Rs.325.00 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- Gummad lagga gerud with a population of 345 numbers	The road shall provide connectivity to Village- Gummad Lagga Gerud with a population of 345 numbers
16	Recreational potential.	Nil	Nil
17	Economic Factors:		
	(a) Population served by the alignment.	(a) 345 numbers	(a) 345 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.

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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 .	262 numbers	425 numbers
21	Average Density of forest cover .	(Dense Forest)	(Dense Forest)
22	Total No. of Merits	12	8
23	Total No. of Demerits	02	06

RECOMMENDATIONS:

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



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