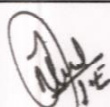


Name of the Work- Construction of Gairsain (Aagarchatti) to Syuni Malli Motor Road under PMGSY

Comparison between identified alignments

Sl. No.	Variables	Alignment No-1	Alignment No-2																																																																																		
1	Topography	Mountainous	Mountainous																																																																																		
2	Length of Road	6.00 km	7.150 km																																																																																		
3	Bridging requirement No. and Length	Nil	Nil																																																																																		
4	Geometric																																																																																				
	(a) Gradients	01:20	01:16																																																																																		
	(b) Curves, H.P Bends	06 numbers of H.P. Bends	09 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 1207 m. The elevation at the starting point of the road is 1080 m and the elevation at the end point of the road is 1335 m. Thus the road achieves a height of 243 m.	(iii) The General elevation of the road is 1187 m. The elevation at the starting point of the road is 1075 m and the elevation at the end point of the road is 1300 m. Thus the road achieves a height of 378 m.																																																																																		
	(iv) Variations extant and types.	38 / 100 (Attached after comprative)	38 / 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)																																																																																		
		<table><tr><th rowspan="2">Month</th><th colspan="2">Temperature (in °C)</th></tr><tr><th>Max.</th><th>Min.</th></tr><tr><td>January</td><td>18</td><td>-1</td></tr><tr><td>Feb.</td><td>22</td><td>7</td></tr><tr><td>March</td><td>27</td><td>13</td></tr><tr><td>April</td><td>33</td><td>18</td></tr><tr><td>May</td><td>35</td><td>20</td></tr><tr><td>June</td><td>32</td><td>21</td></tr><tr><td>July</td><td>31</td><td>21</td></tr><tr><td>August</td><td>30</td><td>23</td></tr><tr><td>September</td><td>30</td><td>21</td></tr><tr><td>October</td><td>29</td><td>17</td></tr><tr><td>November</td><td>26</td><td>12</td></tr><tr><td>December</td><td>21</td><td>-1</td></tr></table>	Month	Temperature (in °C)		Max.	Min.	January	18	-1	Feb.	22	7	March	27	13	April	33	18	May	35	20	June	32	21	July	31	21	August	30	23	September	30	21	October	29	17	November	26	12	December	21	-1	<table><tr><th rowspan="2">Month</th><th colspan="2">Temperature (in °C)</th></tr><tr><th>Max.</th><th>Min.</th></tr><tr><td>January</td><td>18</td><td>-1</td></tr><tr><td>Feb.</td><td>22</td><td>7</td></tr><tr><td>March</td><td>27</td><td>13</td></tr><tr><td>April</td><td>33</td><td>18</td></tr><tr><td>May</td><td>35</td><td>20</td></tr><tr><td>June</td><td>32</td><td>21</td></tr><tr><td>July</td><td>31</td><td>21</td></tr><tr><td>August</td><td>30</td><td>23</td></tr><tr><td>September</td><td>30</td><td>21</td></tr><tr><td>October</td><td>29</td><td>17</td></tr><tr><td>November</td><td>26</td><td>12</td></tr><tr><td>December</td><td>21</td><td>-1</td></tr></table>	Month	Temperature (in °C)		Max.	Min.	January	18	-1	Feb.	22	7	March	27	13	April	33	18	May	35	20	June	32	21	July	31	21	August	30	23	September	30	21	October	29	17	November	26	12	December	21	-1
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Karanprayag-1

Executive Engineer
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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 80	January 80
		Feb. 92	Feb. 92
		March 66	March 66
		April 36	April 36
		May 60	May 60
		June 180	June 180
		July 325	July 325
		August 298	August 298
		September 190	September 190
		October 45	October 45
		November 10	November 10
		December 25	December 25
	(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)03	(b)03
	(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.



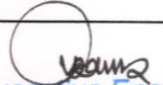
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Sl. No.	Variables	Alignment No-1	Alignment No-2
	(e) Construction material (Timber, Bamboo, Sand, Stone, Shingle etc. extent of their availability and lead involved.	(e) Stone required for the construction work shall be made available locally as it 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, 0.280 hectare @ Rs. 2500000.00= Rs. 560000.00 Reserve Forest Land, 4.370 hectare @ Rs. 9,39,000= Rs. 4103430.00 Thus total value of land = Rs. 4663430.00	Value of the land required for the construction of the road in this alignment is as under- - Private land, 0.280 hectare @ Rs. 2500000.00= Rs. 560000.00 Reserve Forest Land, 5.175 hectare @ Rs. 9,39,000= Rs. 4859325.00 Thus total value of land = Rs. 5419325.00
11	Approximate Const. Cost.	Rs.480.00 lacs	Rs. 560.00 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.	15 months	15 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- Syuni Malli with a population of 425 numbers	The road shall provide connectivity to Village- Syuni Malli with a population of 425 numbers
16	Recreational potential.	Nil	Nil
17	Economic Factors:		
	(a) Population served by the alignment.	(a) 425 numbers	(a) 425 numbers
	(b) Agricultures 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 .	425 numbers	425 numbers
21	Average Density of forest cover .	0.4 (Dense Forest)	0.4 (Dense Forest)
22	Total No. of Merits	15	10
23	Total No. of Demerits	04	09

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.


A.E.


A.E.
Assistant Engineer
RWD PMGSY
Karanprayag-1


E.E.


D.F.O.