Name of the Work- Construction of Bungidhar-Mehalchuri-Bachuwaban 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		
4	Geometric				-		
	(a) Gradients	1:20			1:20		
	(b) Curves, H.P Bends	03 Number	s of HP	Bends	05 Number	SOFHP	Rends
5	Existing Means of communication, mule path, jeep, Tracks etc.	By mule path			By mule pa		1301100
6	Right of way, bringing out. construction on account of	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			out the co	nstruction	n work. There a onuments or oth
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 mix of Earth and Boulders, Soft Rocand Hard Rock.		
	(i) Cliffs and gorges.	(i) None			(i) None		
	(ii) Drainage characteristics of the area including susceptibility to flooding.				e (ii) The natural Drainage characteristics of the area is goo		
	froad indicating maximum and	(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.			is 1450 m. The elevation at the starting point of the road is 1300 and the elevation at the end point		
	minimum height negotiated	starting poi and the ele the road is	int of the vation at 1500 m.	road is 1300 m the end point of Thus the road	starting po and the ele the road is	int of the evation a s 1500 n	e road is 1300 t t the end point n. Thus the roa
	minimum height negotiated by main ascends and	starting poi and the ele the road is achieves a	int of the vation at 1500 m. height of 2	road is 1300 m the end point of Thus the road 200 m.	starting po and the ele the road is achieves a	int of the evation a s 1500 n height of	e road is 1300 t the end point n. Thus the road 200 m.
8	minimum height negotiated by main ascends and descends.  (iv) Variations extant and	starting poi and the ele the road is achieves a	int of the vation at 1500 m. height of 2	road is 1300 m the end point of Thus the road 200 m.	starting po and the ele the road is achieves a	int of the evation a s 1500 n height of	e road is 1300 t the end point n. Thus the road 200 m.
8	minimum height negotiated by main ascends and descends.  (iv) Variations extant and types.  Climate Condition:	starting poi and the ele the road is achieves a 30 / 100 (At	int of the evation at 1500 m. height of 2 ttached aft	road is 1300 m the end point of Thus the road 200 m. ter comprative)	starting po and the ele the road is achieves a 30 / 100 (A	int of the evation at a 1500 n height of ttached a	e road is 1300 t the end point n. Thus the road 200 m. after comprative
8	minimum height negotiated by main ascends and descends.  (iv) Variations extant and types.  Climate Condition:  (a) Temperature Monthly	starting poi and the ele the road is achieves a 30 / 100 (At	int of the evation at 1500 m. height of 2 ttached aft ature Mong. data of Tempera	road is 1300 m the end point of Thus the road 200 m. (er comprative) thly max. & min. 12 years)	starting po and the ele the road is achieves a 30 / 100 (A	int of the evation at 1500 m height of ttached at erature 1 g (Avg. c	e road is 1300 t the end point n. Thus the road 200 m. after comprative Monthly max. data of 12 years rature (in °C)
8	minimum height negotiated by main ascends and descends.  (iv) Variations extant and types.  Climate Condition:  (a) Temperature Monthly	starting poi and the ele the road is achieves a 30 / 100 (At (a) Tempera reading (Av Month	int of the evation at 1500 m. height of 2 tached aft ature Mong, data of Tempera	the end point of Thus the road 200 m. the comprative) the thing max. & min. 12 years) the thing max. & min.	starting po and the ele the road is achieves a 30 / 100 (A	int of the evation at 1500 n height of ttached at tracked at Temper Max.	e road is 1300 the end point in. Thus the road is 200 m. after comprative worthly max. data of 12 years
8	minimum height negotiated by main ascends and descends.  (iv) Variations extant and types.  Climate Condition:  (a) Temperature Monthly	starting poi and the ele the road is achieves a 30 / 100 (At (a) Tempera reading (Av Month	int of the evation at 1500 m. height of 2 ttached aft ature Mong. data of Tempera Max.	road is 1300 m the end point of Thus the road 200 m. (er comprative) thly max. & min. 12 years)	starting po and the ele the road is achieves a 30 / 100 (A (a) Tempe min. readin Month	int of the evation at 1500 in height of ttached at tracked at Temper Max.	e road is 1300 It the end point In. Thus the road Is 200 m. Inter comprative  Monthly max. Istata of 12 years Istature (in OC)  Min.  -1
8	minimum height negotiated by main ascends and descends.  (iv) Variations extant and types.  Climate Condition:  (a) Temperature Monthly max. & min. reading.	starting poi and the ele the road is achieves a 30 / 100 (At (a) Tempera reading (Av Month January Feb.	int of the evation at 1500 m. height of 2 stached aft ature Mong. data of Tempera Max.	road is 1300 m the end point of Thus the road 200 m. ter comprative)  thly max. & min. 12 years)  ture (in °C)  Min1 7	starting po and the ele the road is achieves a 30 / 100 (A (a) Tempe min. readin Month	int of the evation at 1500 in height of ttached at erature of g (Avg. of Temper Max.	e road is 1300 It the end point In. Thus the road I 200 m. Inter comprative  Monthly max. Idata of 12 years I ature (in OC)  Min.  -1  7
8	minimum height negotiated by main ascends and descends.  (iv) Variations extant and types.  Climate Condition:  (a) Temperature Monthly max. & min. reading.	starting poi and the ele the road is achieves a 30 / 100 (At (a) Tempera reading (Av Month January Feb. March	int of the evation at 1500 m. height of 2 stached aff attree Mong. data of Tempera Max.	road is 1300 m the end point of Thus the road 200 m. ter comprative)  thly max. & min. 12 years)  ture (in °C)  Min1 7 13	starting po and the ele the road is achieves a 30 / 100 (A (a) Tempe min. readin Month January Feb March	int of the evation at 1500 in height of ttached at ttached at ttached at 1500 in height of ttached at 1	e road is 1300 It the end point In. Thus the road If 200 m. In after comprative  Monthly max. Idata of 12 years In attrict (in OC)  Min.  -1  7  13
8	minimum height negotiated by main ascends and descends.  (iv) Variations extant and types.  Climate Condition:  (a) Temperature Monthly max. & min. reading.	starting poi and the ele the road is achieves a 30 / 100 (At (a) Tempera reading (Av Month January Feb. March April	int of the evation at 1500 m. height of 2 stached aft ature Mong. data of Tempera Max. 16 18 24 30	road is 1300 m the end point of Thus the road 200 m. ter comprative)  thly max. & min. 12 years)  ture (in OC)  Min1 7 13 18	starting po and the ele the road is achieves a 30 / 100 (A (a) Tempe min. readin Month January Feb March April	int of the evation at 1500 in height of ttached at 1500 in height of ttach	e road is 1300 It the end point In. Thus the road If 200 m. In after comprative  Monthly max. In atta of 12 years In atta of 12 years In atta of 13 years In atta of 1
8	minimum height negotiated by main ascends and descends.  (iv) Variations extant and types.  Climate Condition:  (a) Temperature Monthly max. & min. reading.	starting poi and the ele the road is achieves a 30 / 100 (At (a) Tempera reading (Av Month January Feb. March April May	int of the evation at 1500 m. height of 2 stached aft ature Mong. data of Tempera Max. 16 18 24 30 35	road is 1300 m the end point of Thus the road 200 m. ter comprative)  thly max. & min. 12 years)  ture (in °C)  Min1 7 13 18 20	starting po and the electhe road is achieves a 30 / 100 (A (a) Temper min. readin Month January Feb March April May	int of the evation at 1500 in height of ttached at 1500 in height of ttach	e road is 1300 It the end point In. Thus the road If 200 m. In after comprative  Monthly max. In atta of 12 years In atta of 12 years In atta of 13 In atta
8	minimum height negotiated by main ascends and descends.  (iv) Variations extant and types.  Climate Condition: (a) Temperature Monthly max. & min. reading.	starting poi and the ele the road is achieves a 30 / 100 (At (a) Tempera reading (Av Month January Feb. March April May June	int of the evation at 1500 m. height of 2 tached aft ature Mong. data of Tempera Max. 16 18 24 30 35 36	road is 1300 m the end point of Thus the road 200 m.  ter comprative)  thly max. & min. 12 years)  ture (in °C)  Min.  -1  7  13  18  20  25	starting po and the electhe road is achieves a 30 / 100 (A (a) Temper min. readin Month January Feb March April May June	rature Max. 16 18 24 30 35	e road is 1300 to the end point on. Thus the road is 200 m.  after comprative of 200 m.  Monthly max. data of 12 years of 12 years of 13 and 18 and 20 and 25
8	minimum height negotiated by main ascends and descends.  (iv) Variations extant and types.  Climate Condition: (a) Temperature Monthly max. & min. reading.	starting poi and the ele the road is achieves a 30 / 100 (At (a) Tempera reading (Av Month January Feb. March April May June July	int of the evation at 1500 m. height of 2 tached aft ature Mong. data of Tempera Max. 16 18 24 30 35 36 32	road is 1300 m the end point of Thus the road 200 m. ter comprative)  thly max. & min. 12 years)  ture (in °C)  Min.  -1  7  13  18  20  25  20	starting po and the ele the road is achieves a 30 / 100 (A (a) Tempe min. readin Month January Feb March April May June July	rature Max. 16 18 24 30 35 36 32	e road is 1300 to the end point on. Thus the road is 200 m.  after comprative of 200 m.  Monthly max. data of 12 years of 12 years of 12 years of 13 and 18 and 20 and 25 and 20
8	minimum height negotiated by main ascends and descends.  (iv) Variations extant and types.  Climate Condition: (a) Temperature Monthly max. & min. reading.	starting poi and the ele the road is achieves a 30 / 100 (At (a) Tempera reading (Av Month January Feb. March April May June July August	int of the evation at 1500 m. height of 2 tached aft ature Mong. data of Tempera Max. 16 18 24 30 35 36 32 30	road is 1300 m the end point of Thus the road 200 m.  ter comprative)  thly max. & min. 12 years)  ture (in °C)  Min.  -1  7  13  18  20  25  20  23	starting po and the electhe road is achieves a 30 / 100 (A (a) Temper min. readin Month January Feb March April May June July August	int of the evation at 1500 in height of ttached at 1500 in height of ttach	e road is 1300 to the end point on. Thus the road is 200 m.  after comprative of 200 m.  Additionally max. data of 12 years of 12 years of 12 years of 13 and 18 and 20 and 25 and 23
8	minimum height negotiated by main ascends and descends.  (iv) Variations extant and types.  Climate Condition: (a) Temperature Monthly max. & min. reading.	starting poi and the ele the road is achieves a 30 / 100 (At (a) Tempera reading (Av Month January Feb. March April May June July	int of the evation at 1500 m. height of 2 tached aft ature Mong. data of Tempera Max. 16 18 24 30 35 36 32	road is 1300 m the end point of Thus the road 200 m. ter comprative)  thly max. & min. 12 years)  ture (in °C)  Min.  -1  7  13  18  20  25  20	starting po and the ele the road is achieves a 30 / 100 (A (a) Tempe min. readin Month January Feb March April May June July	rature Max. 16 18 24 30 35 36 32	e road is 1300 to the end point on. Thus the road is 200 m.  after comprative data of 12 years reture (in °C)  Min.  -1  7  13  18  20  25  20
8	minimum height negotiated by main ascends and descends.  (iv) Variations extant and types.  Climate Condition: (a) Temperature Monthly max. & min. reading.	starting poi and the ele the road is achieves a 30 / 100 (At (a) Tempera reading (Av Month January Feb. March April May June July August	int of the evation at 1500 m. height of 2 tached aft ature Mong. data of Tempera Max. 16 18 24 30 35 36 32 30	road is 1300 m the end point of Thus the road 200 m.  ter comprative)  thly max. & min. 12 years)  ture (in °C)  Min.  -1  7  13  18  20  25  20  23	starting po and the electhe road is achieves a 30 / 100 (A (a) Temper min. readin Month January Feb March April May June July August	int of the evation at 1500 in height of ttached at 1500 in height of ttach	e road is 1300 to the end point on. Thus the road is 200 m.  after comprative of 200 m.  Additionally max. data of 12 years of 12 years of 12 years of 13 and 18 and 20 and 25 and 23
8	minimum height negotiated by main ascends and descends.  (iv) Variations extant and types.  Climate Condition: (a) Temperature Monthly max. & min. reading.	starting poi and the ele the road is achieves a 30 / 100 (At (a) Tempera reading (Av iMonth January Feb. March April May June July August September	ature Mong. data of Tempera Max. 16 18 24 30 35 36 32 30 30	road is 1300 m the end point of Thus the road 200 m. ter comprative)  thly max. & min. 12 years)  ature (in <sup>0</sup> C)  Min.  -1  7  13  18  20  25  20  23  21	starting po and the ele the road is achieves a 30 / 100 (A (a) Tempe min. readin Month January Feb March April May June July August September	int of the evation at 1500 in height of ttached at ttached at ttached at 18 at	e road is 1300 to the end point in. Thus the road is 200 m. In a comprative in the road is 200 m. In a compr

Assistant RWD PMGSV Karanprayag-

अधिशासी अभियन्त ग्रामीण निर्माण विभाग पीरुपमठजीरुपसठवाईर खण्ड-कर्णप्रमाग

SI. No.	Variables		Alignment No-1	Alignment No-2		
	(b) Rainfall data average	(b) Rainfall	data average annual peak	(b) Rainfall data average annua		
	annual peak intensities	intensities r	monthly distribution	peak intensities monthly distribution		
	monthly distribution (to the			90		
	extent available) .	Month	Average Rainfall Data	Month	Average Rainfall Data (	
			(in mm)		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		33	
	(c) Snowfall data average	(c) Snowfal	l occurs in the month of	(c) Snowfa	Il occurs in the month	
	annual peak intensities	December a	and January upto 15 cm in	December and January upto 15 ca		
	monthly distribution (to the	depth on an average		in depth on an average		
	extent available).	The state of the s			arr arerage	
		(d) Owing	to the nature of terrain	(d) Owing	to the nature of terra	
	velocities.	local affect	are pronounced and when	local affect	are pronounced and whe	
			prevailing winds not too			
		strong to m	ask these effect, there is a	strong to mask these effect, there i		
		tendency	for diurnal reversal of	fa tendency for diurnal reversal winds, the flow being anabatic during the day and katabatic at night, the latter being of considerable force.		
		winds the f	low being anabatic during			
		the day an	d katabatic at night the			
		latter being				
		latter being	or considerable force.			
	(e) Fog Condition.	(e) Genera	ally there are no fog	(e) Generally there are no for		
		conditions	in the area. However,	conditions	in the area Howeve	
	-	during the	month of December and	during the month of December ar		
			slight foggy conditions			
		prevail during night, with clear sky in		prevail during pight with clear sky		
		the day.	ig mgm, mar crear sky m	the day.		
	(f) Exposure to sun.					
	12.00			(f) The site is exposed to su		
		1000		throughout		
	(g) Unusual weather condition	(g) There	is no record of unusual	(g) There is no record of unusual weather condition like cloud burst if the area where the site is located.		
	like cloud burst etc.	weather cor	ndition like cloud burst in			
			ere the site is located.			
9	Facilities resources.					
	(a) Landing ground	(a) None		(a) Name		
	(a) Landing ground.	(a) None		(a) None		
	(b) Dropping Zone.	(b) None		(b) None		
	(c) Food stuffs.	(c) Haldi	Adrak, Mirch, Lehsoon,	(c) Holdi	Adrok Mirah Labara	
	, , , , , , , , , , , , , , , , , , , ,	Dhan Ghah	un, Aloo etc.			
		Dilaii, Grien	uri, Aloo etc.	unan, Gher	nun, Aloo etc.	
	(d) Labour local availability	(d) Local	labour is available for	(d) Local	labour is available for	
		construction	work	construction		
			1177111	wwitati doddol	I VVAZIA.	

अधिशासी अभयन्ता ग्रामीण निर्माण विभाग पी०एम०जी०एस०वाई० RWD PMGSY Karanprayag-

I. No.	Variables	Alignment No-1	Alignment No-2			
	(e) Construction materia		e (e) Stone required for th			
	(Timber, Bamboo, Sand	construction work shall be made	construction work shall be mad			
	Stone, Sningle etc. extent of	flavailable locally as it shall be	available locally as it shall h			
	their availability and lead	obtained from hill side cutting	obtained from hill side cutting			
	involved.	However, sand required for the	However, sand required for the			
	1	construction work shall be procured	construction work shall be procured			
	_	from the approved quarry with a	from the approved quarry with a			
	1	distance of 30 km.	distance of 30 km.			
10	Value of land agricultural	Value of the land sequired for the	No.			
	land Irrigated land built up	Value of the land required for the construction of the road in this	value of the land required for the			
	land, forest land etc.	alignment is as under-				
	The state of the s	The state of the s	alignment is as under-			
		- Private land, 2.055 hectare @ Rs.	- Private land, 1.530 hectare @ Rs.			
		2100000= Rs. 4,315,500	2100000= Rs. 3,213000			
		- Forest Land, 0.18 hectare @ Rs.	- Forest Land, 0.63 hectare @ Rs.			
		9,35,000= Rs. 168,300	9,35,000= Rs. 589,050			
		Thus total value of land = Rs.	Thus total value of land = Rs			
		4,483,800.00	The total value of land - 145.			
11	Approximate Court Court	5				
11	Approximate Const. Cost.  Access point indicating	Rs. 44.84 lacs	Rs. 38.02lacs			
12	possibility of induction of	Access point available for induction	Access point available for induction			
	equipment.	or equipment	of equipment			
13		12 months	10			
	construction.	12 months	12 months			
14	Strategic Consideration.	Deployment of skilled mannower and	Deployment of skilled manpower and			
		efficient equipment / machinery shall	efficient equipment / machinery shall			
		be made for completion of the	be made for completion of the			
		project.	project.			
15	Important villages, towns and					
	markets centers to be	The road shall provide connectivity to	The road shall provide connectivity to			
	connected	Village- Kolani with a population of 305 numbers	Village- Kolani with a population of			
		303 Humbers	305 numbers			
16	Recreational potential.	Nil	Nil			
			a common			
17	Economic Factors:					
	Escripting ( actors,					
Ì	(a) Population served by the	(a) 305 numbers	(-) 205			
	alignment.	(a) 505 humbers	(a) 305 numbers			
		(b) Transportation of the cultivated	(h) Transportation of the sufficient			
	potential of the area.	crops by mechanical means (i.e	(b) Transportation of the cultivated			
- 1		through road) shall enhance the	through road) shall sales at			
		economical condition of the people	economical condition of the			
		residing in this area. Potential of the	residing in this area. Detential of the			
		development of animal husbandry.	development of animal husbandry.			
			acted princing of animal nusbandry.			
18	Other major development	None	None			
	projects being taken up					
	electric projects etc.					
	[1] S. (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)					
	A CONTRACTOR OF THE CONTRACTOR	// A				
19	(i) Misc. Such as camping	(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 Angineer RWO PMGSY (2)

विभागां सिनियन्ताः यानीय निमाण विभाग पान्यपान्तीव्यक्तवाईव यण्ड-कर्णायसम्

Juguel JE

SI. 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		
	(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		
<ul><li>(v) Working period available for construction of work.</li></ul>		(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

Jaguag.

अधिशासी अभियन्ता ग्रामीण निर्माण विभाग पी०एम०जी०एस०वाई० खण्ड-कर्णप्रवाग

वन क्षेत्राधिकारी लोक्स रन्द्रन रेग्सैप

D.F.O.

प्रभागीय वनाधिकारी केदारनाथ वन्य जीव प्रभाग गोपेश्वर।