Name of Project Construction of 2-lane missing link road from Rath Bypass (Hamirpur District) to Garautha (Jhansi District) of SH-42 in the State of Uttar Pradesh (FP/UP/ROAD/117342/2020)

Checklist Serial No. -9.6

Justification locating project in Forest land

Rath in Hamirpur district and Garautha in Jhansi Districts are two towns on either side of the Dhasan river. There is no connectivity between these two towns at Majhgaavan (Hamirpur District) and Kachir Ghat (Jhansi District) as no bridge exists on Dhasan river. People have to travel to Jhansi to travel another end of the river. Therefore, it is a need to connect Rath to Garautha for improving the connectivity between the districts.

Two alternate alignments options were studied in order to minimize the ecological impacts, natural habitations and minimize the social impacts such as resettlement and environmental impacts. Various factors were considering while studying the alignment which are broadly grouped under main heads such as connectivity, geometrics, cost, economic benefits and social and environmental impacts.

Option-I: In the Hamirpur-Rath-Garautha-Chirgaon section of SH-42, there is a missing link/ road between Majhgavan (Km 92+000, Hamirpur district) and Kachir Ghat (Km 108+000, Jhansi district). No bridge existing on Dhasan River at Kachir Ghat (green line in Figure 1).

Option-II: To connect Rath and Garautha via Kuchechha Ghat which is 10 km upstream from Kachir Ghat (red line). A bridge ($24 \times 30 \text{ m}$) already has been constructed and opened for traffic in 2015. On Hamirpur side, this bridge is connected through an Other District Road (ODR, $\sim 18 \text{ km long}$) to Rath. On Jhansi side, this bridge is connected through a Village Road (VR, $\sim 12 \text{ km long}$) to Gauratha (refer red line in Figure 7.1).

The option will provide a shortest route connectivity to public by linking the Hamirpur-Rath section of SH-42 to Garautha-Chirgaon section of SH-42 via this new bridge across Dhasan river at Kuchechha Ghat. The road section has an approx. length of 37Km with a general ROW of 30m.

Analysis of Option-I and Option-II

S. No.	Particulars	Option-l	Option-II	Option-III
1	Length (km)	44.34	37.347	40.618
3	Affected Forest Length in RF (Km)	9.2	7.1	8.2
3	Affected Forest Area (ha.)	32.3	21.9	29.6
4	Resettlement issues	Approx. 6 commercial and 16 residential exist.	20 commercial & 2 resi- commercial structure affected.	18 commercial & 4 resi- commercial structure affected.
5.	Required New Bridges	1 (Dhasan River)	Nil	2 (One across Dhasan River, One across Lakheri River)
	Saving on Dhasan River Bridge (Rs in Crore)	Nil	22.2	Nil

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S. No.	Particulars	Option-I	Option-II	Option-III
5	Savings construction cost (INR)	Nil	30.6	Nil
6	Approx. Travel time (minutes)	44	37	41

All the three option will have to pass through the reserved forests adjacent to Dhasan river and therefore it is unavoidable. However, it is considered minimum on the basis of IRC and other standard guidelines for highway construction. Any other alternative chosen for the project considering engineering, social, financial and other issues would have caused more loss of Forest area. Therefore, on merit basis, Option-2 is recommended.

Overall, the development of this state highway will ensure better, faster and uninterrupted direct connectivity. This will play a significant role in reducing the pollution besides savings in vehicle operating costs, less fuel consumption and decreased cost and time of passenger travel. The proposed project road will give significant economic impetus to Uttar Pradesh state and will help in changing the socio-economic condition of the people living in the Hamirpur and Jhansi region and generate direct and indirect employment to the local people.

Date: 29,08,2022
Place: Lineknow

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(RAKESH VERMA) Superintending Engineer