

## **SUMMARY OF THE PROPOSALS**

**Name of Work** – Detailed Project Report for Improvement Two Laning with paved shoulder of stretch from Junction of NH-22 near Hazipur to junction of NH-122 at Bachhwara via Mahanar and Mohiuddin Nagar of NH- 122 B (Ch. 0.000 to Ch 72.950).

The National Highway Division, Bihar Sharif Bihar has decided to Concentric Up-gradation Widening and strengthening work of existing Two Laning with paved shoulder of stretch from Junction of NH-22 near Hazipur to junction of NH-122 at Bachhwara via Mahanar and Mohiuddin Nagar of NH- 122 B (Ch. 0.000 to Ch 72.950).in the state of Bihar. The implementation of rehabilitation and up-gradation of this part to be taken under the control of Road Construction Department N.H. Division Bihar Sharif. The project Section Jadhua - Bachwara under consideration from Ch. 0.000 to Ch 72.950, starts from Junction of NH-22 near Hazipur and passes through important township /habitations Bikramganj, Bidupur, Mathura, Mustkpur, Kurwa, Jahagirpur, Mahanar, Hatanpur, Bindgama, Dashara, DihDashara, Birganj, Mohiuddin Nagar, Chakfarano, Madudabad, Badhuna, harpurbocha chowk, Khanawa, Bajitpur, Mau, Harijan Tola and terminates Ch. 72.950 at Murli Tola (Bachwara) on NH-122 in Begusarai district.

The total length of the project road is 72.950 km per D.P.R. Total length of the project road from Km Ch. 0.000 to Ch 72.950 is passing under the administrative boundary of Vaishali, Samastipur and Begusarai Forest Division, Bihar. National Highway Division has to upgrade the existing road to 2- Lane with paved shoulders configuration in the public interest. Improvement of Project Highway as per the applicable IRC codes needs to be widened. There is no reserve forest near the project road, however some sections of the road have been designated as notified protected forest by Govt. of Bihar attached as Annexure-II. Proposal involves felling of trees from the existing plantation which is notified as protected Forest and approx. In this proposed alignment, 97.3934 ha. Forest land (Vaishali (35.7263 Ha) + Samastipur (58.5085 Ha.) + Begusarai (3.1586 Ha.) = 97.3934 Ha.) will be affected in the Notified Protected Forest and approx. 7952 no. trees are likely to be fallen (3692 trees (Dist. Vaishali), 3302 trees (Dist. Samastipur) and 958 trees (Dist. Begusarai).

- I. Total length: - 72.950 Km
- II. Carriageway width: - 7.0m.
- III. Existing RoW: - 14 to 30m.
- IV. No of Bridges: -There is no major Bridge in the Project Section; ten minor bridges are falls in project section, one is under construction, five are new proposal and seven bridges are retain +Rehabilitation.
- V. Total 47 Nos. of Culverts of different types has been found in the project section. Detail of existing culverts along with their existing condition is presented in Table below. Existing culverts are having total width ranging from 8.0 m to 12 m. Most of the hump pipe culverts are of dia varying 0.6 – 1.0 m size and slab culverts with a minimum size of 1x2.0 m. The existing culverts are in poor condition and proposed for reconstruction.
- VI. There is two Major Junction fall in the project section of Hajipur to Bachwara. A number of minor roads Jn. (34 Nos.) are meeting in this project road at different locations throughout the project section from Ch. 0.000 to Ch 72.950. These minor junctions comprise of adjoining feeder roads and village roads connected with this road at different locations. These roads are generally 3.0/5.5 m.wide.

- VII. CBR of existing soil: - Since the present case is widening of highway in terms of paved shoulder & strengthening of existing pavement. For widening portion subgrade earth of good quality will laid so that 8% CBR of subgrade is achieved. As per field and laboratory data CBR of existing section is 5%. So for design purpose CBR of existing has been taken 5%.

#### **Pavement Design: -**

- (i) Widening portion: - In view of present Traffic Scenario and available Right of Way, it has been decided to go for Concentric Up-gradation Widening and strengthening work of existing Two Laning with paved shoulder of stretch from Junction of NH-22 near Hazipur to junction of NH-122 at Bachhwara via Mahanar and Mohiuddin Nagar of NH-122 B (Ch. 0.000 to Ch 72.950) in the state of Bihar.

#### **Design of Flexible Pavement Widening / Paved Shouldering**

For widening of existing two-lane highway with paved shoulder and strengthening overlay, Flexible & Rigid Pavement has been proposed in length of project Section.

**Sub Grade:** Since the present case is widening of highway in terms of paved shoulder & strengthening of existing pavement. For widening portion subgrade earth of good quality will laid so that 8% CBR of subgrade is achieved. As per field and laboratory data CBR of existing section is 5%. So for design purpose CBR of existing has been taken 5%.

#### **Design of Flexible Pavement for Paved Shoulder Work (New Construction) in Project section**


100mm (GSB First Layer) over subgrade earth which will be extended in full width to act as drainage layer and 100 mm second layer on carriageway width only, hence total thickness of GSB will be 200mm in crust portion. Over GSB 250 mm WMM will be overlayed on widening portion and 250 mm on existing portion also. Over WMM 90 mm DBM & 30 mm BC shall be overlayed. Maximum length of road section is new construction due to overtopping of existing road by flood water. So in new construction earth filling & subgrade earth shall be used to achieve the CBR of subgrade 8%..

Project road from Two Laning with paved shoulder of stretch from Junction of NH-22 near Hazipur to junction of NH-122 at Bachhwara via Mahanar and Mohiuddin Nagar of NH- 122 B (Ch. 0.000 to Ch 72.950) in the state of Biharis National Highway-122 B with double lane, Intermediate and single lane road configuration in the state of Bihar. Government of India has decided to upgrade the project stretch for better connectivity to people in order to improve the condition of the road transport network of the state and contribute to its economy development.\ The project road section of Bikramganj to Dumraon of National Highway -120 traverse through built-up area but avenue plantation of existing road has been declared as Notified Protected Forest by the Government of Bihar under the Forest (Conservation) Act. 1980. Therefore Forest Clearance to be accorded from Ministry of Environment Forest & Climate change, Government of India for felling of trees under Notified Protected Forest Land.

The project will not generate directly employment opportunities to people but it can arise opportunity of employment in the future construction work of project road will be awarded to employment in the future. Contractor will hire some skilled and non-skilled persons as per the requirement of construction work.

In this proposed alignment, 97.3934 ha. Forest land (Vaishali (35.7263 Ha) + Samastipur (58.5085 Ha.) + Begusarai (3.1586 Ha.) = 97.3934 Ha.) will be affected in the Notified Protected Forest , Bihar is required for rehabilitation and up- gradation of existing road to 2-lane with paved shoulders configuration, to cater the better traffic facility as per the Indian Road Congress (IRC)guidelines.

Total Cost of the project is 368.72 Crores. Alignment has been designed carefully for the requirement of forest area.

  
09.3.2021  
Executive Engineer  
N.H. Division, Biharsharif

Executive Engineer  
N.H. Division, Biharsharif

Date:-09.03.2021

Place:-Biharsharif