

Proposal for the diversion of Diversion of 14.613 Ha. Forest Land in favour of NHAI for Construction of Eight laning of existing Four lane Vadape to Thane from Km. 539.202 to Km. 563.000 section of NH 3 (New NH-848) in the State of Maharashtra to be executed on Hybrid Annuity Mode (HAM).

By Project Director, National Highways Authority of India,
PIU, Thane.

PROJECT NOTE

By the Project Authority

Name of the Project: Diversion of 14.613 Ha. Forest Land in favour of NHAI for Construction of Eight laning of existing Four lane Vadape to Thane from Km. 539.202 to Km. 563.000 section of NH 3 (New NH-848) in the State of Maharashtra to be executed on HAM.

1.0 GENERAL

- 1.1 The existing road from Vadape (km 539/202) to Thane (km 563+000) experienced tremendous growth in Traffic once 4 laning was done, as it is a vital link connecting NH-8, NH-3, NH-4 and NH-17 bypassing Mumbai City. The traffic has increased considerably after development of surrounding network and growth of urban conglomerates like Thane Municipal Corporation (TMC), Kalyan Dombivli Municipal Corporation (KDMC), Navi Mumbai Municipal Corporation (NMMC) and Bhiwandi Nisampur Municipal Corporation BNMC). Keeping this in view, GOM / GOI has initiated 8 laning of this corridor considering present traffic and projected traffic in horizon years.
- 1.2 Considering the ever-increasing traffic demand on major link roads This link is beneficial for exchange of traffic from one highway to another highway.

2.0 DESIGN STANDARDS

- 2.1 The following standards for some major design elements of the proposed road, generally conforming to the internationally accepted standards for highway on similar terrain and traffic conditions were

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recommended by consultants and were accepted by the National Highway Authority of India.

2.2. Roads

The proposal for the Construction of Eight laning of existing four lane Vadape to Thane from Km. 539.202 to Km. 563.000 section of NH 3 (New NH-848) ("NH-3" or "New NH-848") to be executed on HAM. are provided in Table 2.1

Table 2.1 Improvement Proposals

Sr. No.	Design Elements	Proposed Features
1	Design speed	100 Km/h
2	Right of way (m)	60m to 84m (Proposed RoW in forest area is 60m only)
3	Main Carriageway width (MCW)	29.00 m (14.5 LHS+14.5 RHS).
4	Paved Shoulder (m)	4.00 m (2.0 LHS+2.0 RHS).
5	Drain MCW & SR (m)	4.0m (2.0 LHS+2.0 RHS).
6	Service Road	14.00m (7.0 LHS+7.0 RHS).
7	Median (m)	2.0 m.
8	Utility Corridor	3.0m (1.5 LHS+1.5 RHS).
9	Longitudinal Gradient (%)	1:60 min.
10	Total Required Row at Forest area	60m minimum (TCS enclosed)
11	Ruling	1 : 30
12	Absolute	1 : 20
13	Minimum	1 : 20
14	Cambers	2.0%
15	Length of Service roads	LHS - 17.709 Km RHS - 17.584 Km
16	Bus Bays	8 Nos.
17	Truck lay byes	2 Nos.

File

B. Bridge and Culverts

The improvement proposal for bridges and structures essentially consists of two components

- Up gradation of project corridor by provision of new bridges and structures to accommodate projected traffic.
- Widening / rehabilitation / replacing the bridges and structures on existing road.

The numbers of Bridges/Flyovers/CD structures proposed for the project is presented in the table -2.2

Table 2.2 Proposed Bridges, Flyovers & CD structures

Sr. No.	Structures	Nos.
1	No. of Major bridges	2 Nos.
2	No. of Minor bridges	2 Nos.
3	Flyover/ROB	1 No.
4	Vehicular underpass	8 Nos.
5	Pedestrian underpass	Nil
6	Cattle/underpass	Nil
7	Structures for Wildlife crossing	2 Nos.
8	Light Vehicular Underpass with @ 4.0 m	Nil
9	Foot Over Bridges	1 No.
10	Culverts (Widening/Reconstruction)	82 Nos.

Widening/rehabilitation of bridges and structures on existing road

- The existing major bridges, minor bridges on the existing road required to be repaired/ rehabilitated/ widened/ replaced to cater for safe movement of present-day traffic and traffic expected in future.
- The repair/rehabilitation for existing bridges is proposed as contained in IRC SP on Techniques for strengthening of bridges.

Road Alignment

The development of the road under consideration starts at Vadpe km. 539/202, and ends at Thane Km. 562/040.

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2.3 Existing ROW/Land width

The objectives of the proposal project is to improve the existing road 4 lane to standard 8 lanes depending upon the growth of vehicular traffic, proposed road development requires various studies such as traffic, terrain ribbon development, need for alternative alignments, bypass, service road for urban/built-up areas and flyover/ interchanges and widening of major as well as minor bridges and CD structures as per the discharge calculation and site requirement.

2.4 Proposed ROW

In general, right of way (ROW) of 60m - 84m is required for the widening to 8 Lane MCW (20.715 Km) & 2 Lane SR at both side (17709 m LHS +17584 m RHS) of project road.

2.5 Lane Configuration


Based on the traffic survey, analysis and forecast the 8-lane configuration is sufficient to cater to the traffic up to year 2040

2.6 Financial Details

- The capital cost of the project: 1,182.87 Cr.
- Construction period : Likely to be completed by October 2023.

Date: - 30/10/2021

Place: - Thane.


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