

Project note with salient features

Government of Maharashtra entrusted the Maharashtra State Road Development Corporation (MSRDC) for the work of Construction of Mumbai Pune Expressway (MPEW, presently known as Yashwantrao Chavan Expressway -YCEW) in the year 2000. Construction of MPEW and widening of Mumbai Pune Section of NH-4 was completed by MSRDC and is presently in operation. At the time of construction of the Expressway, the alignment between Khopoli and Lonavala could not be constructed due to Viability Gap Funding (VGF) issues. Hence, existing alignment of the NH-4 in the hilly portion had to be followed by widening it to six lanes. In the hilly alignment therefore, the length of the Expressway and NH-4 is common. Thus, the entire traffic from NH-4 as well as MPEW merge in this section and usually causes heavy congestion on this Part of the YCEW. A need, therefore, is felt to adopt another alternative alignment for the Expressway in this stretch.

The objective of the project is to construct missing link of MPEW (MPEWML) in Khopoli to Lonavala hilly section to provide transport & communication facilities, considering future growth of traffic on this route. Construction of the new alignment for MPEWML between Khopoli to Lonavala, consists of two Tunnels, two Viaducts and capacity augmentation of the corridor i.e. existing NH-4 and YCEW including improvements to connectors between NH-4 and YCEW. The proposed alignment starts near Khopoli exit on YCEW in Raigad district and ends at Sinhagad institute near Lonavala in Pune district.

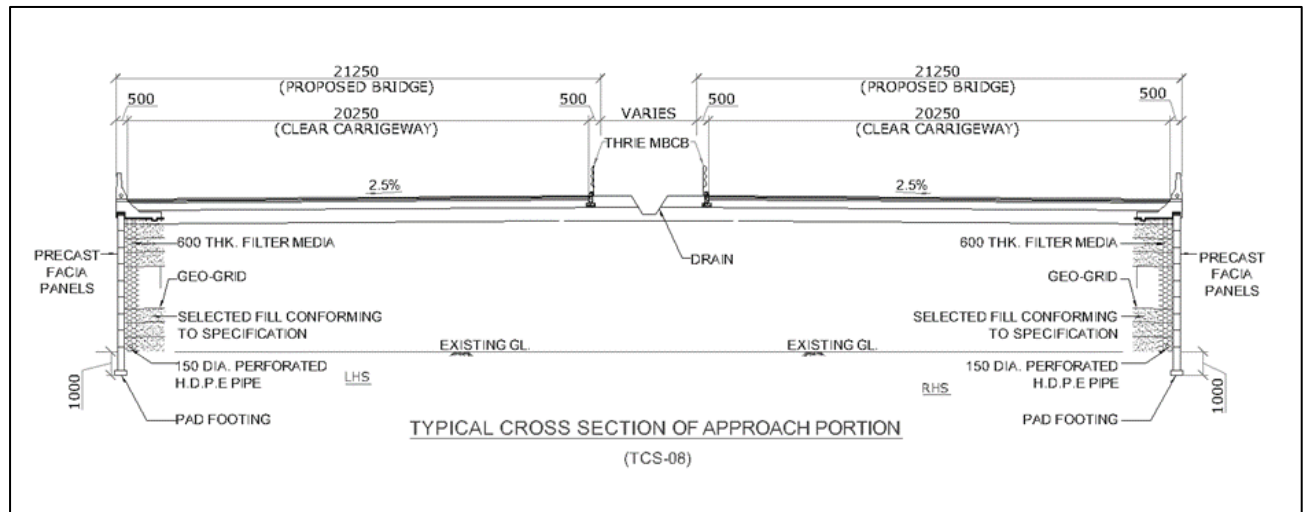
Salient Features of the Project:

Sr. No.	Particulars	:	Details
1	Project Name	:	Construction of the Missing link of Mumbai – Pune Expressway with 8 lane new alignment of about 13.3 km, starting at Khopoli Exit on the existing YCEW in Raigad district and ending at Sinhagad Institute near Lonavala in Pune district.
2	User Agency	:	Maharashtra State Road Development Corporation Limited (MSRDCL), a Government of Maharashtra undertaking.
3	Total length of the proposed project	:	6.5 km (capacity augmentation of existing MPEW from Khalapur toll plaza CH.32/000 km to Khopoli exit CH.38/500 km) + 13.3 km (missing link of MPEW from Khopoli exit CH.38/500km to Sinhagad Institute near Lonavala CH.51/800)
4	Forest Area for which Diversion is sought	:	34.2028 Ha (in Raigad District) 40.5074 Ha (in Pune District) 74.7102 Ha (Total)
5	Project cost (civil)	:	4797.57 Cr
6	Length of the alignment passing through the two districts	:	The Alignment is passing through 2 Districts Raigad District: Taluka Khalapur (3.540km) Pune District: Taluka Maval (9.76km)
7	No. of affected villages	:	Raigad District: 3 (Adoshi, Bhanvaj, Chavani,) Pune District: 4 (Kurvande, Bhushi, Kusgaon Budruk, Lonavala and Khandala)
8	Project Components	:	2 tunnels, 2 viaducts, 2 horizontal shafts

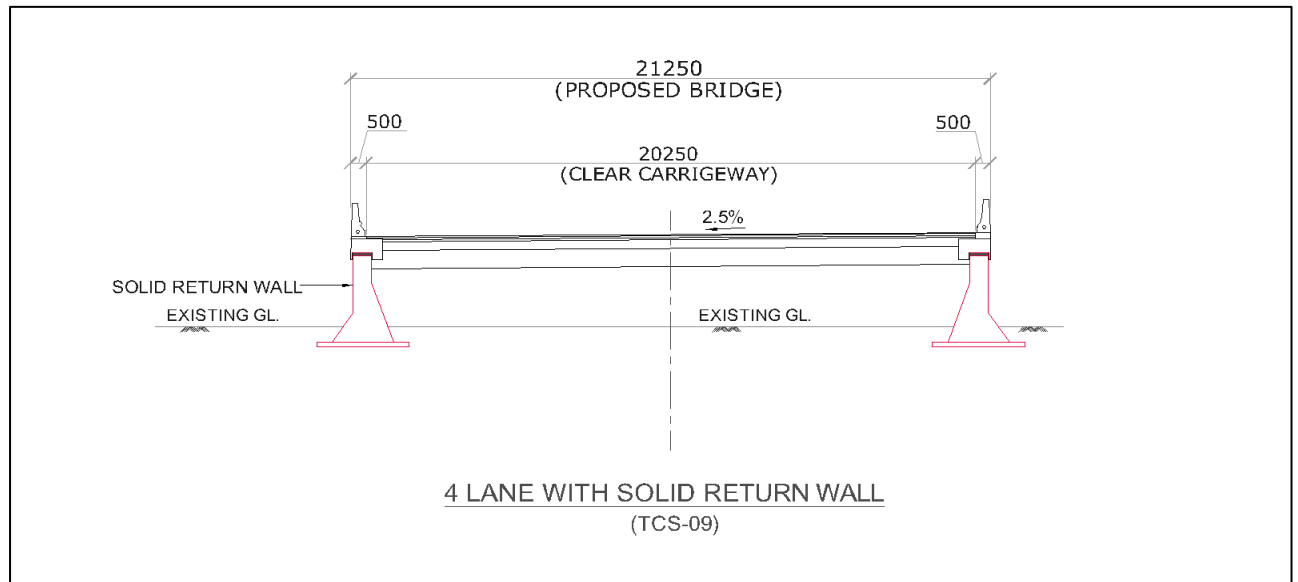
9	Right of way	:	100 m
10	Design Speed	:	120 kmph
11	Total length of the proposed project	:	13.3km (missing link of MPEW) + 6.5km (capacity augmentation of existing MPEW from Khalapur toll plaza CH 32/000km to Khopoli exit CH 38/500km and at Sinhagad Institute)
12	Seismic zone	:	Zone – III

The proposed cross sections are as follows:

Typical Cross Section of Approach Road (TCS-08)

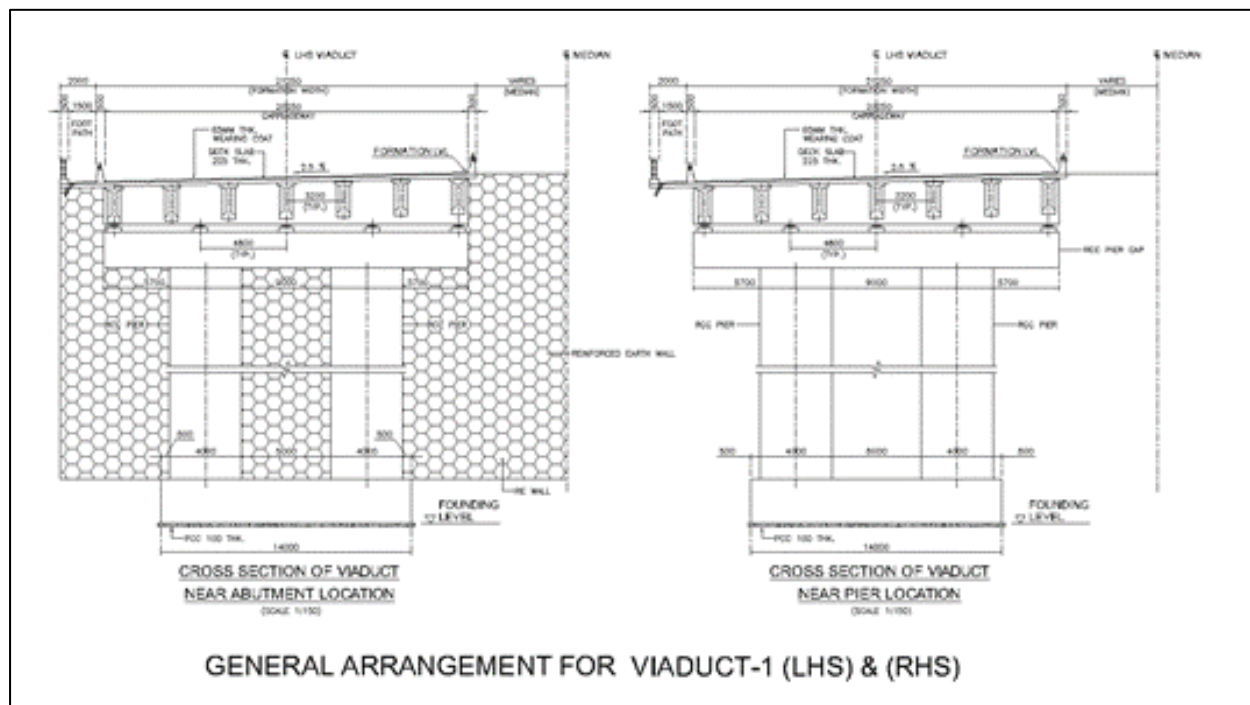


4-Lane with Solid Return Wall (TCS-09)

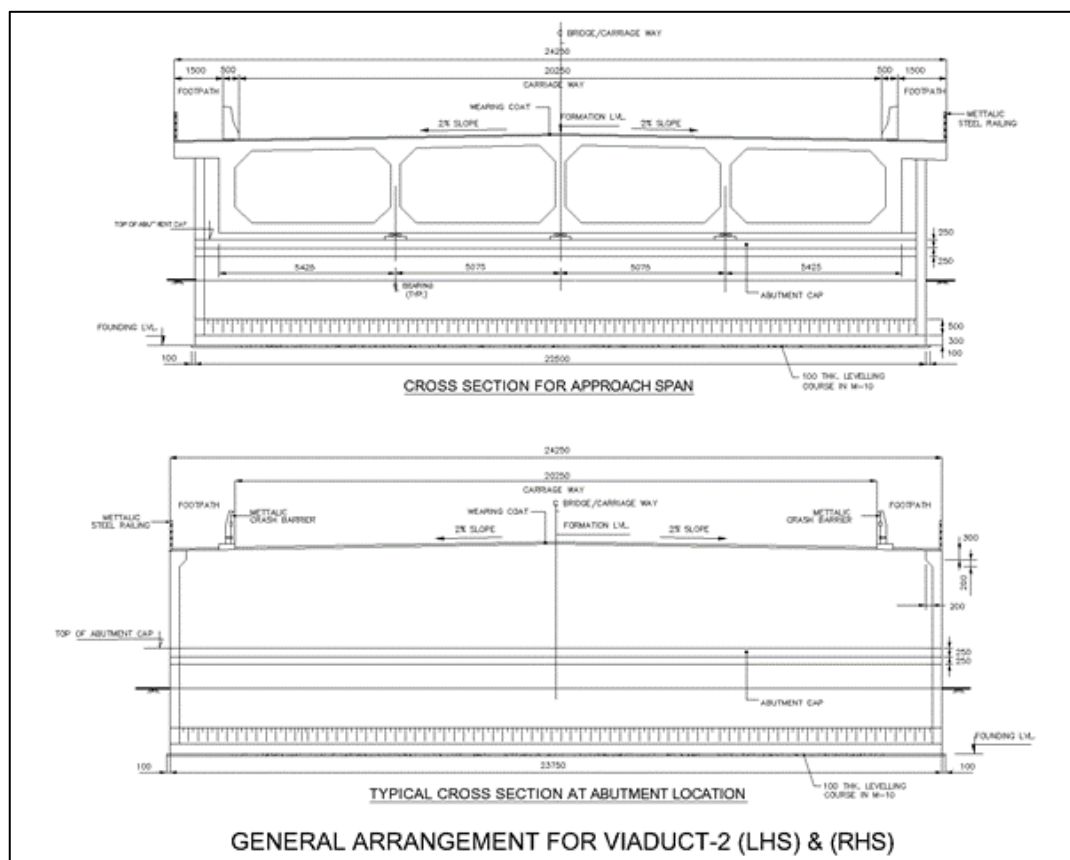


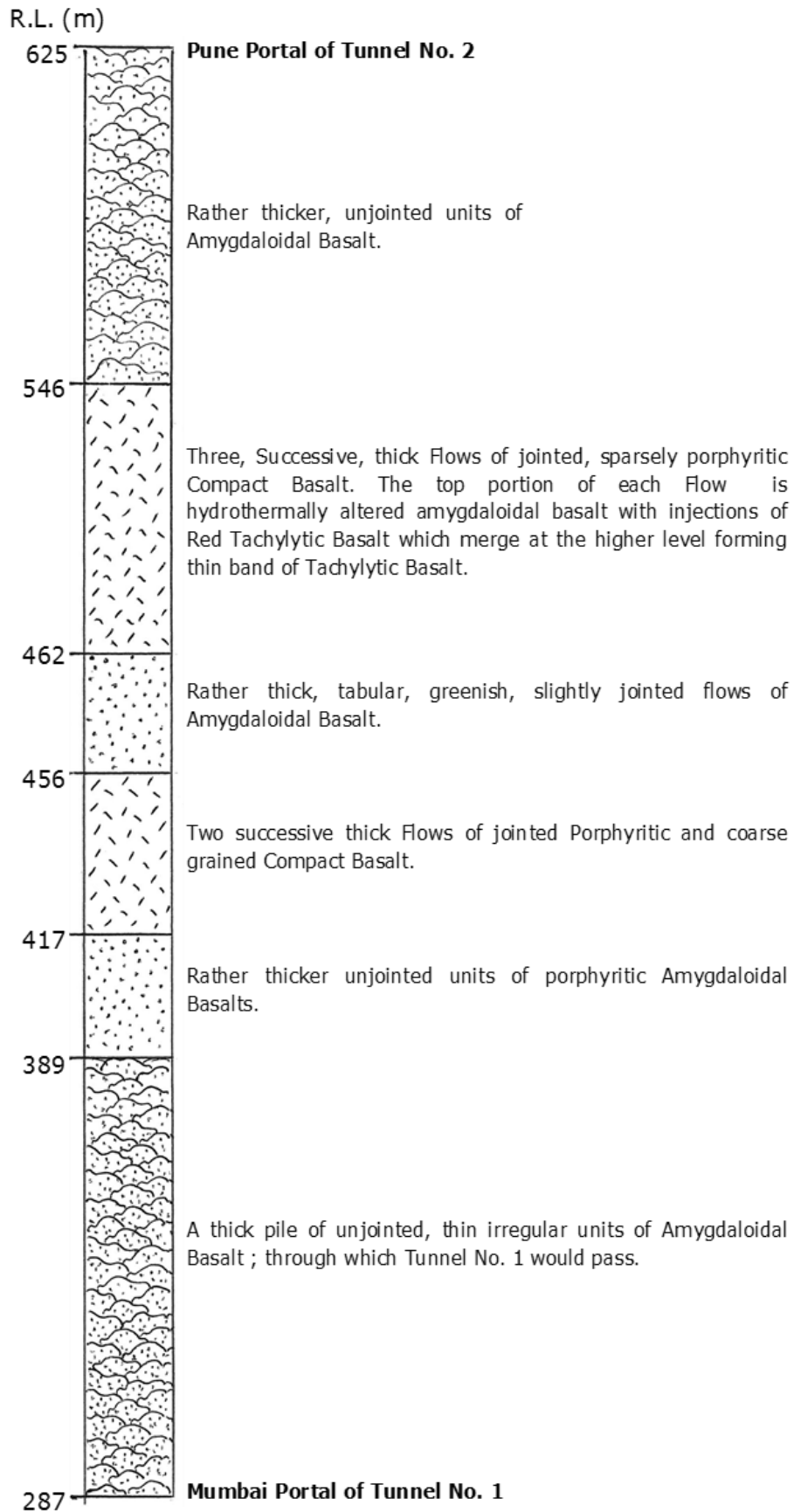
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General Arrangement for Viaduct-1 (LHS) & (RHS):



General Arrangement for Viaduct-2 (LHS) & (RHS):





Layout showing proposed facilities like Viaducts / Tunnels / Horizontal Shafts

Geo-technical investigations and sub-surface explorations will be conducted for the proposed viaducts / tunnels / horizontal shafts, along high embankments and any other location as necessary for proper design of the works.

Interchanges are required at the both ends of link.

3.0% gradient for Tunnel; 3.85% gradient for Viaduct

Minimum curve radius provided is 440m& maximum curve radius provided is 7000m.

1. Tunnels: -

❖ Tunnel 1

LHS = 1750 m (including approaches)

Proper Tunnel 1660 m

Entry Approach 50 m

Exit Approach 40 m

RHS = 1690 m (including approaches)

Proper Tunnel 1620 m

Entry Approach 30 m

Exit Approach 40 m

❖ Tunnel 2

LHS = 9860 m (including approaches)

Proper Tunnel 8890 m

Entry Approach 30 m

Exit Approach 940 m

RHS = 9930 m (including approaches)

Proper Tunnel 8830 m

Entry Approach 40 m

Exit Approach 1060 m

2. Viaducts: - Spanning arrangement (20 m – 165 m X 4 – 20 m)

❖ Viaduct 1

LHS

Viaduct 1A – 390m

Viaduct 1B -250 m

RHS

Viaduct 1 – 900m

❖ Viaduct 2

LHS

Viaduct 2 - 650 m

RHS

Viaduct 2 - 640 m

Each carriageway has a width of 15 m with 3 m wide hard shoulder and 1m wide soft shoulder on both the sides. The horizontal distance between two tunnels is 50 m and the same is continued for viaducts and road also

Overpass at ch. 33/421, 3 no Major Bridge at Ch. 33/915 (4 x 9.8), at Ch. 36/580 (9 x 18) and Ch. 37/100 (3 X 20.5), 2 nos PUP at Ch. 35/100 & 35/755, 1 no VUP Ch. 35/500, 1 Box Culvert and eight nos of Pipe Culverts.