

Justification for the Requirement of 20mtr wide Approach Road For 2X66o MW Mirzapur TPP

The width of the approach road from the State Highway (SH-5) to the Power Plant was originally envisaged to be 30mtr. However, since the Forest Department insisted to reduce the width of the approach road corridor, as the width of the State Highway road is 7mtr only. We have re-examined the corridor width with respect to road, allied system and essential facility requirement of proposed power plant and changed the design as shown in the attached cross-sectional drawing so as to reduce the corridor width to 20mtr by providing two lane road including drains & fencing on both sides.

The breakup & justification for the optimized 20mtr width corridor is listed below.

1. **Approach Road:** - Double lane road (each of 6mtr width) is essential foreseeing the expected heavy vehicular movement during project implementation phase as well as during operation phase. Moreover, it will also ensure smooth traffic in both the directions.
2. **Raw Water Pipe Corridor:** Raw water pipe in the State Highway portion has a separate corridor with a defined width along the carriageway and the same is not a part of the carriage way. Unlike the State Highway, we have accommodated this pipe at the center of the road which eliminates the additional inspection road or service road requirement. This concept helped in optimizing the width of approach corridor. The proposed width of the pipe corridor is 5mtr only.
3. **Power Line Corridor:** - The essential power line cable through 0.5mtr wide backfilled trench has also been accommodated with in this 20mtr corridor. This power line would be running from power plant to water intake pump house, for uninterrupted power supply.
4. **Drainage Arrangement:** - For approach road, pipeline and power lines etc. Proper drainage arrangement is essential to ensure the serviceability of these facilities. Hence on either side of the road, RCC drainage with 1000mm width is provided.
5. **Fencing:** - To isolate the proposed facilities (like road, water pipe and power line) from adjacent area as we would be running through forests on both sides. Fencing is also essential on both the sides of the approach road and it is also accommodated with in the corridor of 20mtr width.

Considering above facilitates, the justified width of corridor comes out to be 20mtr.

$$\text{Corridor Width} = \frac{2 \times 6\text{m}}{\text{Carriage Way}} + \frac{5\text{m}}{\text{Pipe Corridor}} + \frac{0.5\text{m}}{\text{Shoulder}} + \frac{2 \times 1\text{m}}{\text{Drain}} + \frac{0.5\text{m}}{\text{Power Line}} = 20\text{mtr}$$