

Printed from

BangaloreMirror

White-topping, 'a real steal'

Bangalore Mirror Bureau / Apr 4, 2022, 06.00 AM IST

*Close up of a whitetopped section in Koramangala.*

Highlights

says 75% of Sampige Road white-topping done
Tie bars or 'connectors' used to hold concrete slabs together

By Garima Prasher

The Bruhat Bengaluru Mahanagara Palike (BBMP) is white-topping Sampige Road in Malleswaram.

According to BBMP officials, 75% of the stretch has been covered. However, residents there are now crying foul over the 'sub-standard work'.

They alleged the stretch is being white-topped without including the essential tie bars. Residents also pointed out, on the contrary, the said tie bars are visible in white-topping work underway in Koramangala and Indiranagar.

"There is no steel reinforcement anywhere in the concrete slabs, including the joints. Normally, steel bars are provided at the joints so that the slabs behave as a single unit. White-topping work in Indiranagar and Koramangala have these bars sticking out of concrete slabs.

Technical specifications cannot be different in different parts of Bengaluru," said a Malleswaram resident. Netizens said they tried to reach out to various sources to get a copy of the technical specifications the BBMP is supposed to follow during white-topping of roads, but did not succeed.

"I wanted to get a copy of the technical specifications the BBMP contractors are following. The last resort to get the document is through RTI. This process takes at least one month. By that time, the work will be over. I tried talking to engineers on the ground. They said the bars are not needed since they are using high-grade cement," said another resident.

Meanwhile, the white-topping work of Sampige Road is progressing at lightning speed. The work began on March 15. Almost 75% of the stretch has already been concretised.

"The workers have covered a lot of area. The work goes on till 1:00 am on some days. The issue of the missing steel bars was brought up during a recent ward committee meeting, but BBMP officials did not pay heed," said another resident.

Tie bars are put while concreting to ensure grip and increase structural strength. It is no showpiece to be drilled in later

— Dr Ashish Verma, IISc

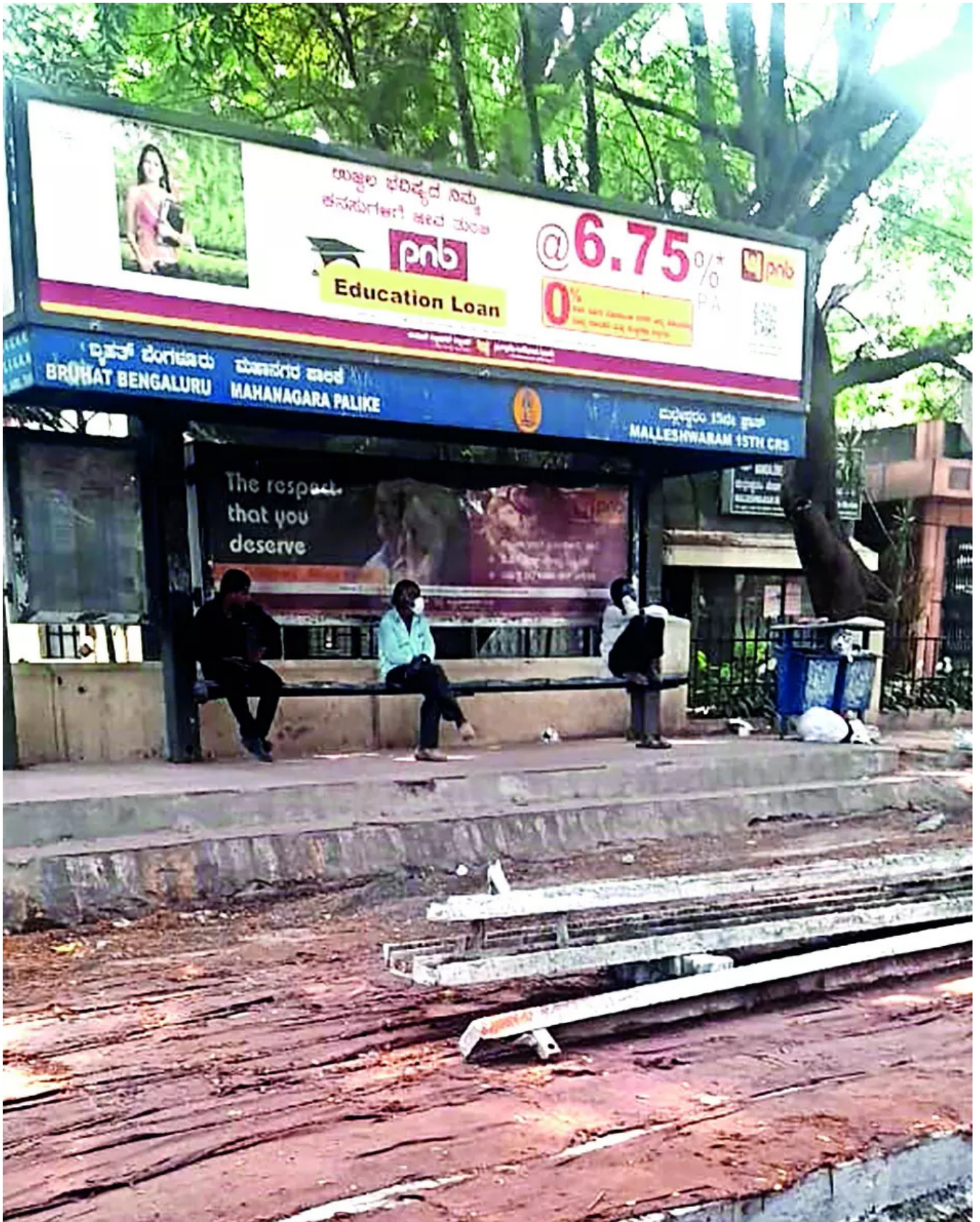
What are tie bars?

The missing steel bars that the residents are referring to are called tie bars by civil engineers. Tie bars are deformed steel bars commonly called 'connectors' that are used to hold rigid concrete slabs together. They substantially improve the performance of pavement joints by keeping the slabs interlocked and prevent traverse cracking. While the initial cost is high, tie bars reduce the life cycle cost.

As per guidelines on conventional and thin white-topping issued by Indian Roads Congress, the tie bar is a standard specification and part of the design. "Tie bars maintain structural integrity of concrete slabs. The slabs are subjected to different kinds of conditions such as temperature variations and vehicle load profile.

Temperature variations cause some level of contraction and expansion. The load profile of vehicles also requires tie bars. These need to be embedded in concrete blocks so that the whole road acts as a single unit. The guidelines of the Indian Roads Congress should be followed," said Dr Ashish Verma of the Sustainable Transportation Lab at the Indian Institute of Science (IISc).

When BM reached out to BBMP, the civic body denied any discrepancy. However, when a picture of the ongoing white-topping work was shared, an official said tie bars will be inserted after drilling holes in the slabs. "We are using M40 grade concrete, for which we do not use steel reinforcement. The work is being done the same way everywhere in the city. Tie bars are a small issue. We will drill holes in the slabs and put the tie bars," the official said. "As per Indian Roads Congress guidelines, tie bars are supposed to be put while concreting the slabs to ensure grip. It is done to increase structural strength. It is no showpiece to be drilled in later," added Dr Verma.





White-topping underway in Malleswaram

Business hit

“We are not getting any business. They started digging the road almost two months ago to repair stormwater drains. They dug up the sides; that isolated the buildings from the road. While the stormwater drain work was still on, white-topping started. Even if they finish the main road, they will have to fill in the space on the sides.

Moreover, there are sections left untouched for the crossroads to connect,” said a shop owner along the stretch. According to residents, the stretch was in a good condition before the white-topping work started — they said the white-topping has rendered Sampige Road non-functional and made residents’ lives miserable.

The stretch from Malleswaram Circle towards 18th Cross is a mess now. While one-half of the stretch has already been concretised, the work on the second half is in the process. Although the work is moving fast, there is still a lot to be done.