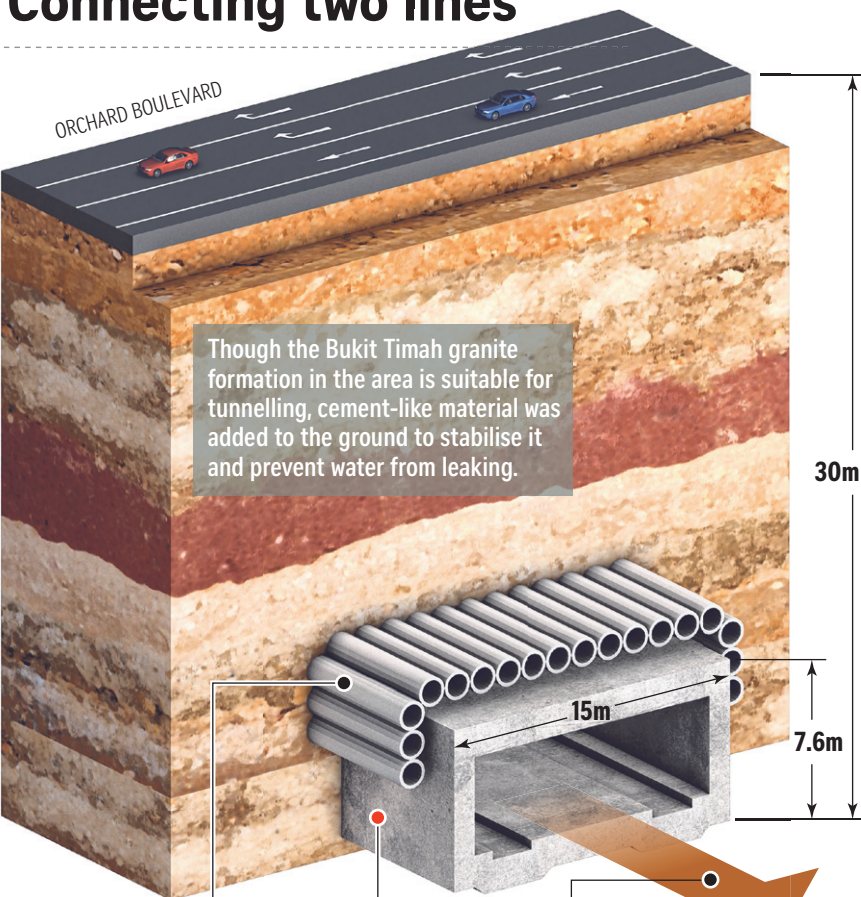


# Connecting two lines



Though the Bukit Timah granite formation in the area is suitable for tunnelling, cement-like material was added to the ground to stabilise it and prevent water from leaking.

30m

Innovative engineering is being used to allow commuters to transfer between the existing North-South Line section of Orchard MRT station and the new Thomson-East Coast Line section, which opens in 2021, with only minor disturbance above ground.

## PLATFORM LINK STRUCTURE

Mining and underpinning are currently being done for a 90m passage running under the North-South Line, with special machines that can drill in all directions within a confined space. Real-time monitoring instruments ensure there is no disturbance to existing MRT operations. About 20 per cent of these works have been done since last September.

**Trenchless underpass construction by pipe roofing**

## PLATFORM LINK

Constructing a 60m passage under busy Orchard Boulevard is achieved with an underground canopy of interlocking steel pipes, which prevents misalignment and breakage. These are inserted using a micro tunnel-boring machine, which is much smaller than the ones used for MRT tunnel boring.

Towards Orchard station Thomson-East Coast line (Under construction)

