

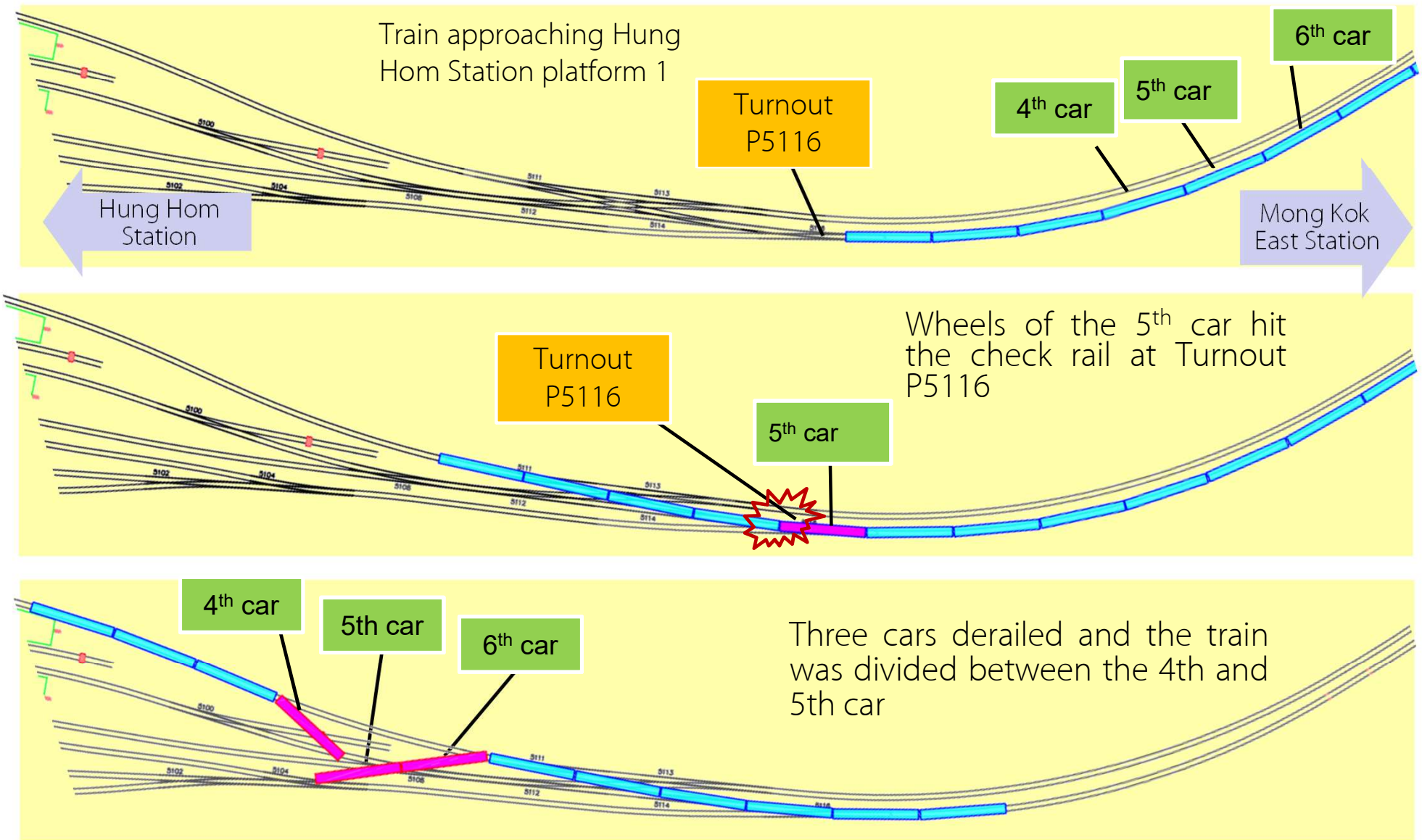


Derailment Incident at Hung Hom Station on East Rail Line (17 Sept 2019)

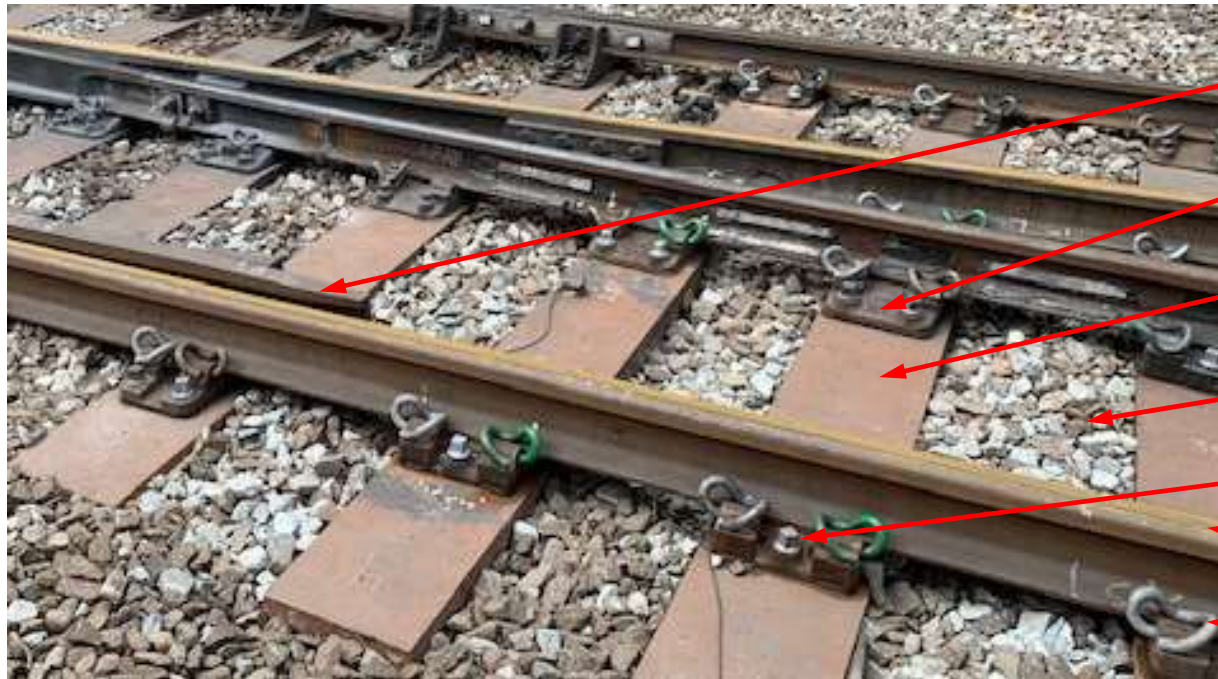
Legislative Council
Subcommittee on Matters Relating to Railways

5 May 2020

The incident



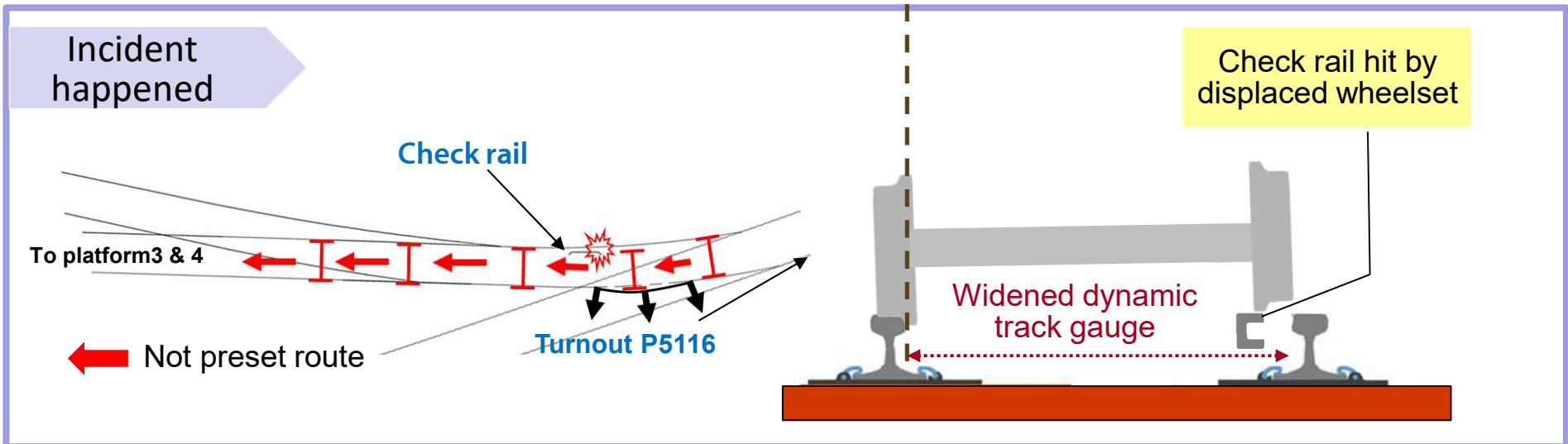
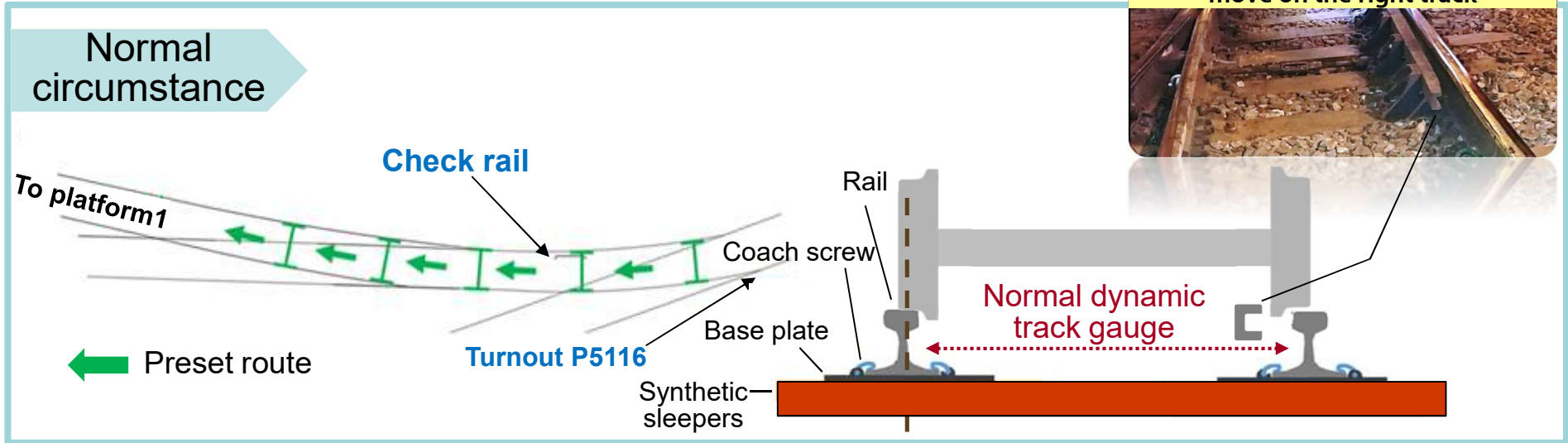
Components of ballasted track at East Rail Line



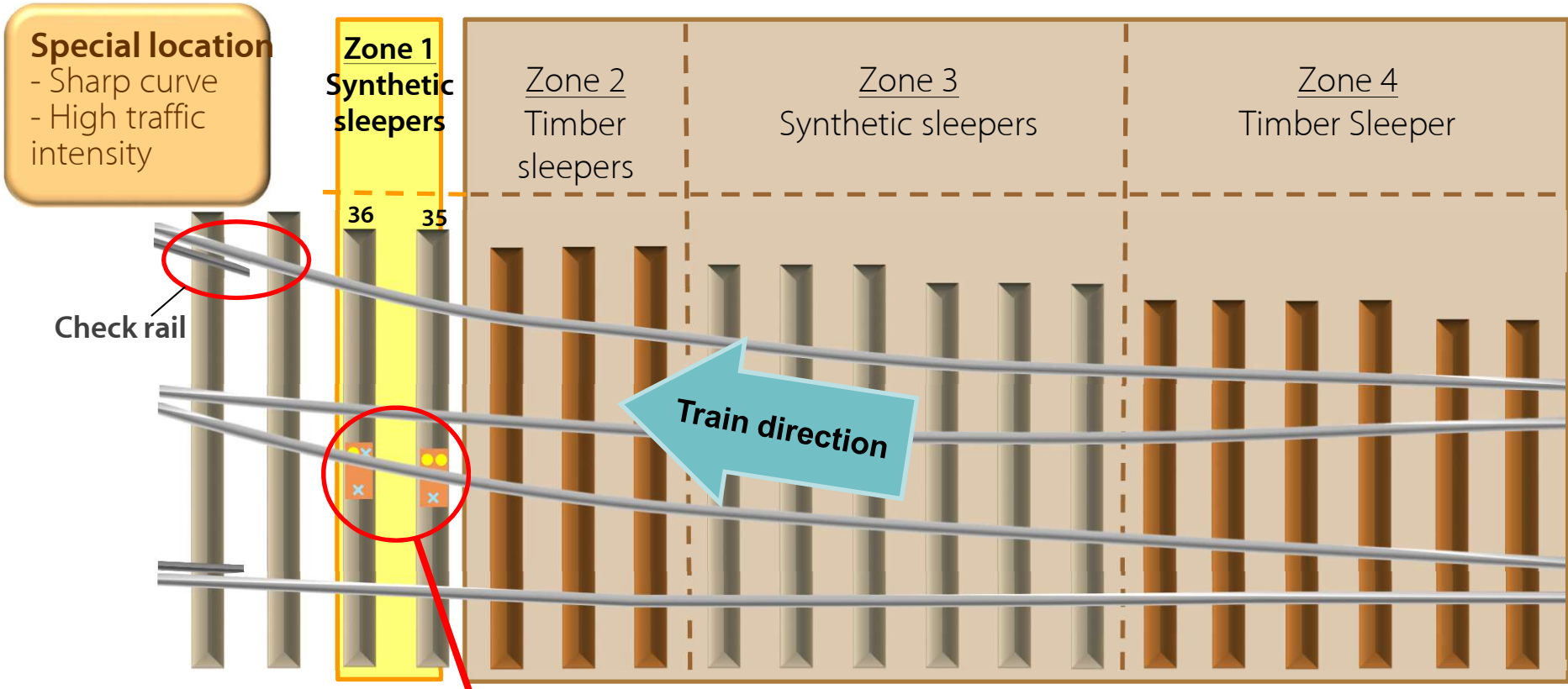
- Check rail
- Baseplate
- Synthetic sleeper
- Ballast
- Screw
- Rail
- Clip

Typical turnout at ballasted track section of East Rail Line

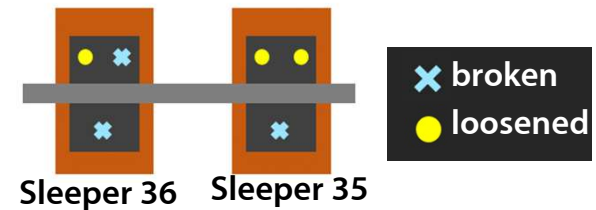
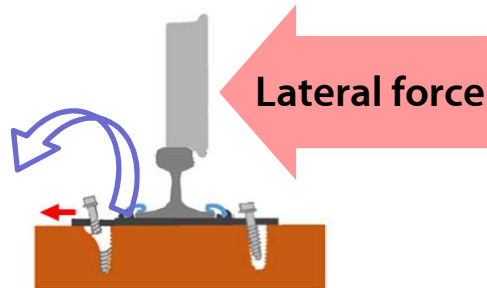
Dynamic gauge widening at Turnout P5116



Sleeper arrangement at Turnout P5116



Lateral force generated by trains passing through sharp curve exerted onto the new sleepers resulting in loosened screws

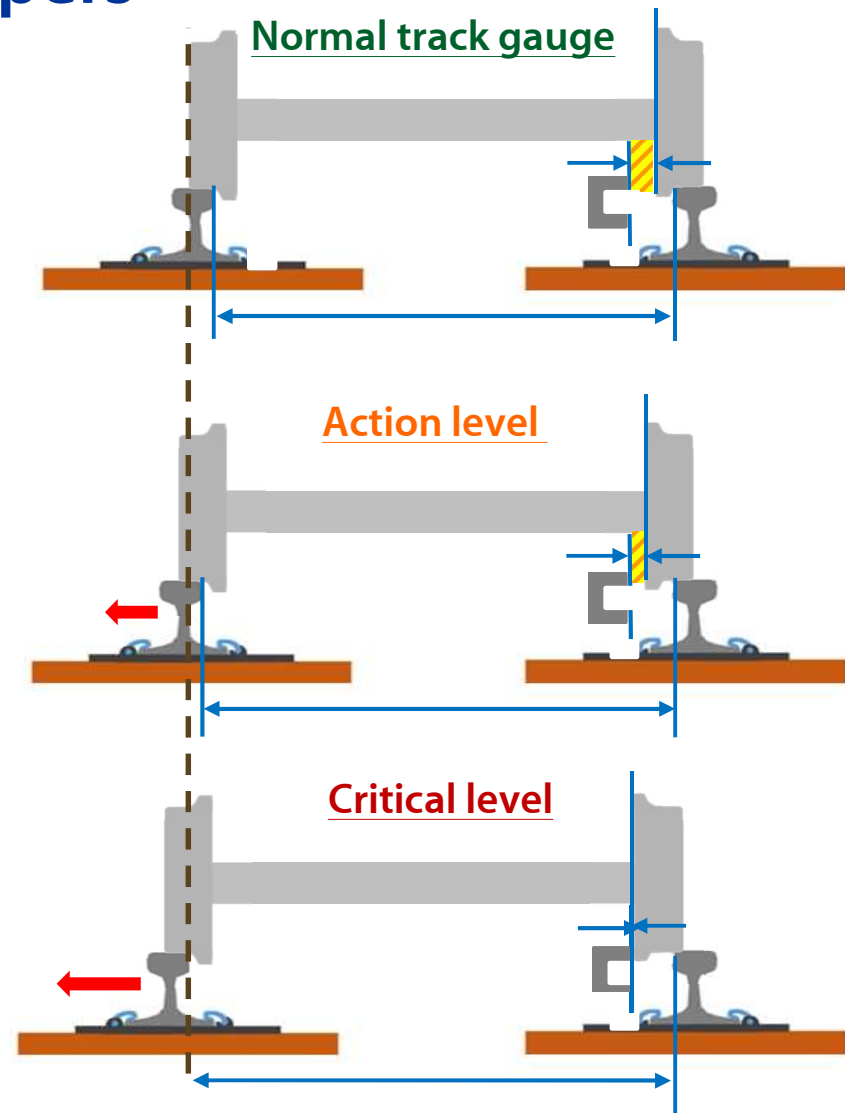


Incident cause - Knowledge Gap of Interaction between the two types of sleepers

Knowledge gap – lack of informed judgment on the scope, timeliness and effectiveness of remedial measures to correct track gauge

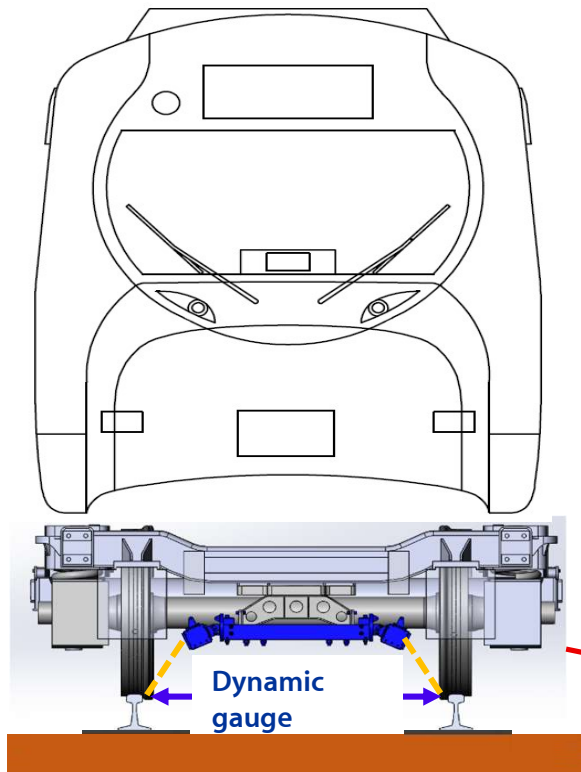
Reliance on experience – follow up actions not carried out strictly in accordance with procedures

Situation not timely escalated



Improvement measures taken (1)

- 1 Implemented new technology to monitor track gauge and track integrity and gauge in traffic hours



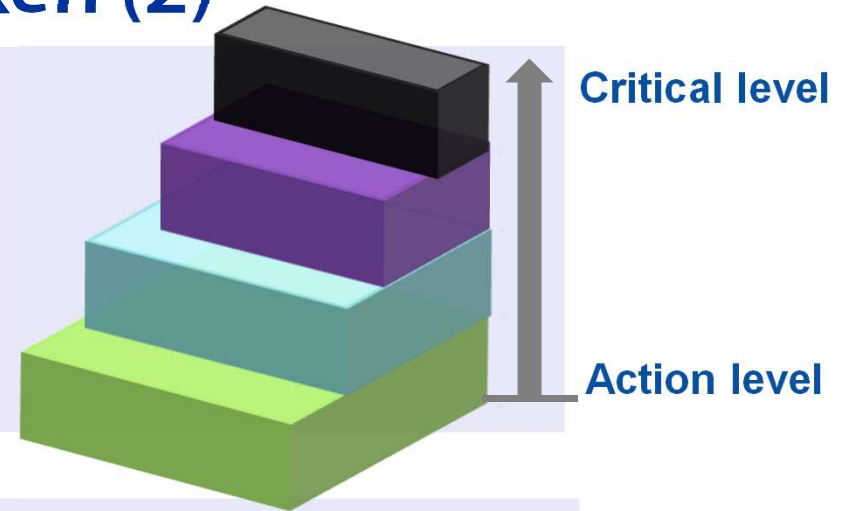
Trial run of new equipment underway



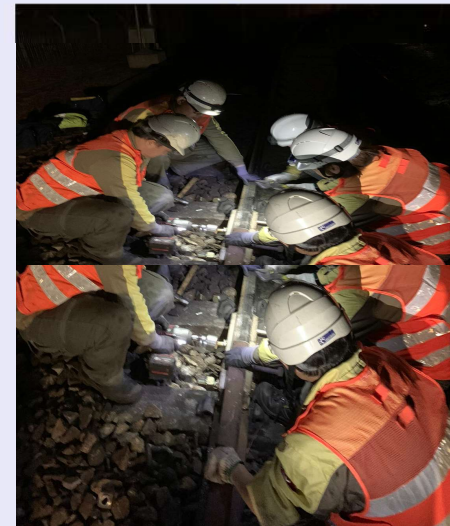
- 2 Enhanced change management before introducing track technology new to MTR

Improvement measures taken (2)

- 3 Adopted a “step” approach to refine maintenance action threshold and enhance monitoring of compliance



- 4 Accelerated the planned replacement of East Rail Line timber sleepers



- 5 Developed measures to address the variation in lateral stiffness after timber sleepers are replaced by synthetic sleepers



END