Background

The action below is a result of the recent publication of the Australian standard for bridges, the AS5100:2017 series.

Lighting structures are required to be designed to AS 5100-2017 series.

The fatigue design has to be in accordance with AS5100.2 Clause 24.4 which requires compliance to AASHTO Standard Specifications for SSHSLTS (Structural Supports for Highway Signs, Luminaires, and Traffic Signals). This standard is now superseded by AASHTO LFRD Specifications for SSHSLTS. The definition of a high mast lighting structure when using AS 5100 in conjunction with AASHTO LFRD SSHSLTS needs clarification. This publication requires a fatigue design to be carried out for HMLT only, i.e. for a height of poles about 17m or greater.

However, light poles are required to comply with Clause 23 of AS5100.1 which includes details related to fatigue sensitive structures.

To provide clear guidance on fatigue design requirements for light poles, this SES note is issued. The action below is consistent with the requirement of Vicroads (BTN 014, 2018) for fatigue design.

Action

All light poles listed in Clause 23.1 of AS5100.1 shall be designed for fatigue in accordance with Clause 24.4 of AS5100.2.

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