



System Application Specification for Overlay Miniature Stop Light Level Crossings

Network Rail specification

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User information

This Network Rail standard contains colour-coding according to the following Red–Amber–Green classification.

Red requirements – *No Variations, could stop the railway*

Red requirements shall always be complied with and achieved.

Red requirements shall be presented in a red box **with the word “shall” or expressed as a direct instruction**.

Accountability for the efficacy of red requirements lies with the Professional Head/Standard Owner.

Red requirements are monitored for compliance.

Corrective actions shall be enforced if Variations are discovered through functional checks (e.g. engineering verification visits, audit or Operations Self-Assurance).

Amber requirements – *Controlled Variations, approved risk analysis and mitigation*

Amber requirements shall be complied with unless deviation has been approved in advance.

Amber requirements shall be presented with an amber sidebar **and with the word “shall” or expressed as a direct instruction**.

Accountability for the efficacy of these requirements lies with the Professional Head/Standard Owner, or their nominated Delegated Authority.

Amber requirements are monitored for compliance.

Variations **may** be permitted. Variations are approved by the Standard Owner or through existing Delegated Authority arrangements.

Corrective actions shall be enforced if **non-approved** Variations are discovered through functional checks (e.g. engineering verification visits, audit or Operations Self-Assurance).

Green – *Guidance*

Guidance is based on good practice. Guidance represents supporting information to help achieve **Red** and **Amber** requirements.

Guidance shall be presented with a dotted green sidebar **and with the word “should” (usually in notes) or as a direct instruction**.

Guidance is **not mandatory** and is not monitored for compliance.

Alternative solutions may be used. Alternative solutions do not need to be formally approved.

Decisions made by a competent person to use alternative solutions should be backed up by appropriate evidence or documentation.

1. Scope

Defines the application requirements and describes the operating characteristics for the Overlay Miniature Stop Light (MSL) level crossing type.

2. Normative References

The following referenced documents are indispensable for the application of this specification. For dated references, only the edition cited applies. For undated references, the latest edition of the reference (including any amendments) applies.

NR/L2/SIG/11201 ModX01 Issue 1

NR/L2/SIG/11201 ModX02 Issue 2 (For audible warnings)

NR/L2/SIG/11201 ModX40 Issue 2 (describes an integrated MSL)

NR/L2/SIG/30015 Issue 1 (Covers signage for MSL crossings)

NR/SPEC/1003 Issue 1

3. Terms and Definitions

Overlay

The system is designed to overlay existing infrastructure without interacting with it. It is expected that train detection inputs to the system will usually be provided as part of the system.

Miniature Stop Light (MSL)

A Miniature Stop Light (MSL) is the conventional active warning system used to give visual indications at private user worked crossings, public bridleway and footpath crossings. Indications provided for the user to determine that the crossing is safe to cross (green) or not safe to cross (red).

Dark Mode

Where a system failure is detected or operational scenario (eg train failure, slow trains, engineering works) may incur the red (not safe to cross) indication for excessive periods, user indications are suppressed. On encountering this mode the user is directed on safe operation by the signage provided.

Always on and On Demand Modes

The normal arrangement of On Demand mode is used to extinguish audible and visible indications to users deliberately to reduce the environmental impact for noise and light pollution. In this mode, the user on approaching the crossing is directed by the signage to operate a push button which will activate the user indications (visual and audible as determined by the system state) for a pre-defined period.