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Issue:	4
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Level 2

Signalling Design: Module A7 -

Correlation of Signalling Records

Endorsement and Authorisation

For endorsement and authorisation, please refer to
NR/L2/SIG/11201

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Issue record

Issue	Date	Comments
4	June 2011	Modularisation of handbook and guidance notes, contains content of former NR/GN/SIG/11115.

Compliance

This Module is mandatory and shall be complied with by Network Rail and its contractors if applicable from 03/09/2011.

When this standard is implemented, it is permissible for all projects that have formally completed GRIP Stage 3 (Option Selection) to continue to comply with the issue of any relevant Network Rail standards current when GRIP Stage 3 was completed and not to comply with requirements contained herein, unless stipulated otherwise in the scope of this standard.

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1 PURPOSE

This module gives guidance on the correlation of signalling records to actual wiring and equipment.

Correlation of signalling records and equipment and wiring on site is required to:

- a) Check the accuracy of source records prior to any design alteration; and
- b) Check that records for signalling infrastructure controlled by Network Rail are adequate for maintenance and faulting.

2 Scope

This module identifies the controls necessary so that correlation of signalling infrastructure is adequately carried out and specifies the records that are to be made and retained.

It should be followed before the commencement of any design work which will alter existing signalling systems, including renewals, and at other times specified by the Route Asset Manager (S&T).

3 Definitions

Definitions are provided in [NR/L2/SIG/11201, Appendix E.](#)

4 Background

The prime causes for poor correlation between records and the physical wiring and equipment on site are:

- a) inadequate record control when the original works were installed,
- b) site equipment or wiring that has been altered without the corresponding master records being updated,
- c) multiple schemes at the same location that have been installed in a different order to that for which they were designed,
- d) works installed but never commissioned.

5 Delegation

Responsibilities within this module may be delegated to nominated competent persons. Such delegation should be recorded.

6 Competence of Personnel

Correlation checks should be carried out by persons who are recognised as competent in accordance with [NR/L2/SIG/10160.](#)

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In addition, staff engaged to undertake correlation activities should be briefed and should demonstrate their understanding and suitability to perform the tasks detailed in this Module, A7 and in [NR/L2/SIG/11201, Module A3](#), Assessment of Signalling Systems before Design Alterations. These tasks include:

- I. being capable of understanding and interpreting analysis sheets and circuit diagrams;
- II. being capable of assessing whether the condition of an installation will enable correlation or not (see [NR/L2/SIG/11201, Module A3](#));
- III. being aware of the dangers of loose spades and terminals;
- IV. being aware of the processes associated with wiring becoming broken or detached;
- V. being able to compile a sufficiently detailed log sheet (see Section 9.5) and correlation report (see Section 9.7); and
- VI. being aware of hazards (both to self and to others) that may be found within a working electrical environment.

Correlation of working installations is regarded as safety critical work and is subject to the additional requirements of [NR/L2/CTM/001](#).

Organisations undertaking correlation should maintain a list of suitable persons, which should be available for inspection.

7 Planning of Design Alterations

The responsible engineer should advise the Route Asset Manager (S&T) of equipment, wiring and diagrams that are likely to be affected by the proposed work.

The extent of work should be recorded in the outline project specification (see [NR/L2/SIG/11201, Module A1](#)) and the scope of correlation stated in the design specification, together with any responsibilities for subsequent updating and remedial action, in accordance with [NR/L2/SIG/11201, Module A4](#).

Before any alterations are made to the design of a signalling system, it should be correlated to the records which will form the basis of the design alterations, in accordance with this Module. Delaying correlation until installation is a non-preferred arrangement, since the risks associated with rework increase the longer the project develops with false source information.

Mandatory requirements relating to outline project specifications, design specifications, site assessments and correlation are given in [NR/L2/SIG/11201](#).

8 Correlation Process

This section defines how correlation is to be managed.

As described below, the responsible engineer should check & arrange that:

- a) the scope of correlation is agreed with the Route Asset Manager (S&T),
- b) the correlation details are correctly specified to correlation staff,