

Ref:	NR/L3/ELP/27406/MOD B
Issue:	2
Date:	3 December 2011
Compliance date:	3 March 2012

Engineering Deliverable Requirements for Electrical Power Asset Design

Module B: Contact Systems – OLE

1 Typical Contact Systems – OLE Requirements

Only the appropriate items described in clauses 2 to 4 should be specified in the PRS along with the requirements identified in Module A. Additional requirements may be specified in the PRS for complex or unusual schemes.

2 Contact Systems - OLE Form A

The required items may be incorporated into the associated GRIP 3 option selection report instead of providing standalone deliverables. The level of detail for each item should only be sufficient to satisfy the approval in principle of single option selection.

a) Major Feeding Diagram.

Required for schemes introducing a new electrification system or amending existing feeding arrangements. Details are required of the route covered by the scheme including interfaces with any existing electrification systems and measures to mitigate potential effects on adjacent or abutting infrastructure.

A major feeding diagram produced at GRIP 3 in order to obtain approval in principle of single option selection may require updating at a later GRIP stage to reflect any scheme alterations.

A major feeding diagram commentary will be required to identify any new or modified feeding arrangements shown on the diagram and the rationale for those arrangements.

b) Section Diagram.

Required for schemes introducing a new electrification system or amending the existing electrical sectioning on an existing electrified area.

c) OLE Layout Plan.

Required to identify new, modified, redundant and future installations as part of the proposed scheme. At Form A stage this does not necessarily require the inclusion of final height and stagger data.

NOTE For complex areas the plans are to be drawn on a scale of 1:500 and for open route 1:1250.

d) General Arrangement of Limited Clearance Structures.

Required to highlight areas of limited clearances, which could necessitate the need for additional design works, i.e. overbridges, tunnels, station platforms. The general arrangements should show the proposed option and provide justification for the use of reduced or special reduced clearances.

e) Condition Renewal Requirements.

Only required when the PRS specifies that it is to form part of the scheme.

f) Basic Design Principles.

Ref:	NR/L3/ELP/27406/MOD B
Issue:	2
Date:	3 December 2011
Compliance date:	3 March 2012

Should describe any key design criteria such as conductor sizes and basic design range to be used.

g) Structure Loading Assessment Strategy.

Required where a submission proposes to introduce an increase in structure loading which may result in the requirement for new structures. The strategy is to identify the increased loading of structures and how this is to be managed in accordance with the Civil Engineering requirements.

h) Details on how the interface with structures owned by 3rd party organisations is to be managed in accordance with Civil Engineering requirements.

Required where a design proposes to attach equipment to structures not owned by Network Rail. This should include details of agreements made with relevant parties to support the single option.

i) Track Position Strategy.

3 Contact Systems - OLE Form B

a) OLE Layout Plan.

Required to identify any new, modified, redundant and future installations as part of the proposed scheme, which is to include height and stagger data.

Staged drawings to be submitted as required.

NOTE For complex areas the plans are to be drawn on a scale of 1:500 and for open route 1:1250.

b) Wirerun Diagram.

Required for schemes in complex areas to accompany the 1:500 layout plan.

c) OLE Cross Sections or Allocation Schedules.

As a minimum OLE Cross Sections are required for:

- Complex areas where a 1:500 layout plan is produced.
- Discrete features.
- New structures.

Allocation schedules accompanied by a generic cross section are acceptable for simple open route areas where the allocation design is repetitive.

Staged revisions to be submitted as required.

d) OLE Switching Section.

Required to show interface between OLE and Electrical Distribution. This could include a site layout plan.

e) New OLE Basic Design Drawings.

New or Novel designs, not already covered in existing basic design ranges.

f) Isolation Diagram/Instructions.