

Switch and Crossing Design Principles

COURSE AIMS

The course is intended to provide the delegate with the relevant skills and underpinning knowledge in the principles of Switch and Crossing Design.

LEARNING OBJECTIVES

At the end of this course the delegates will: -

- Have a clear understanding of relevant standard drawings, Railway Standards, Company Standards and Line Specifications relating to switch and crossing design.
- Be able to demonstrate knowledge of all component parts of switch and crossing.
- Be able to carry out a site assessment and complete a site survey.
- Be able to carry out the plotting from information gained on site.
- Be able to check and complete all relevant design calculations.
- Be aware of the need to satisfy client's specification and requirement.
- Be able to check and complete all relevant information required for submission of design approval.
- Understand which department/ functions may be involved in S&C renewals and the need for clear and concise communication.
- Understand how to order S&C material and the relevant lead times.
- Have a clear understanding of all necessary information required for preparation of final drawings.
- Be able to demonstrate a clear understanding of the principles of setting out and installing S&C schemes.

COURSE DURATION

Ten days, consisting of two five day modules, Monday - Friday.

PRE-REQUISITES

There are no particular educational or competence pre-requisites for the course. However, the following factors will benefit the delegate: -

- Prior technical experience in working in the Permanent Way environment.
- An understanding of Track Re-alignment by the Hallade Method.
- Good numeric skills
- Be conversant with the use of surveying equipment.

PERSONAL PROTECTIVE EQUIPMENT

This course requires the delegate to be on or near the running line, therefore, he/she **MUST** be in possession of: -

- Valid Track Safety Competence
- Protective High Visibility Clothing
- Safety Footwear

The protective equipment must comply with current safety standards.

CERTIFICATION

A certificate will be awarded to delegates who can demonstrate his/her understanding of Switch and Crossing Design Principles.