

Best Practice at Farringdon – Re-Prioritisation of Cable Management System Routes to aid the Construction Programme

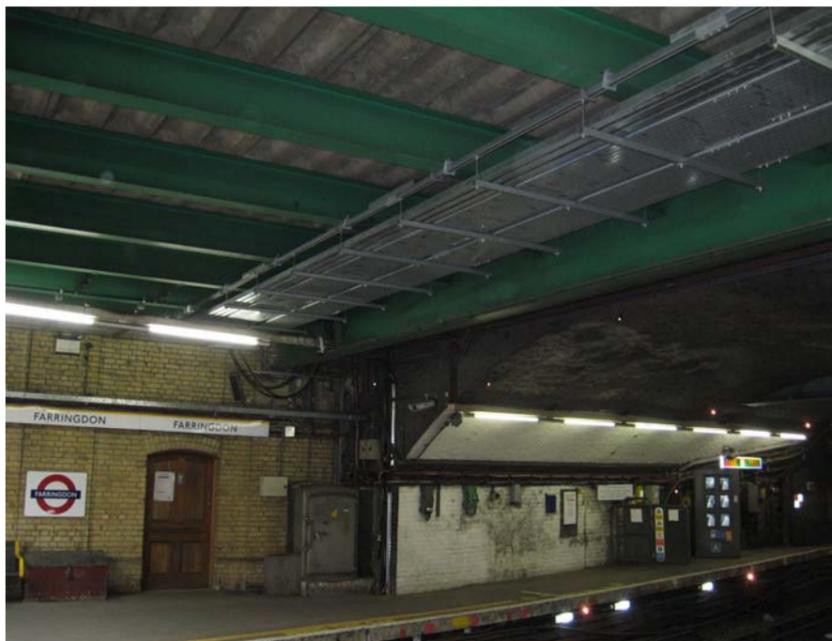


Overview

A significant element of the transformation of Farringdon Station is the M&E services serving the station buildings and open areas such as platforms and concourses. M&E services and Railway Systems have a dependency on cable management systems (CMS) that run the length and width of the station. In achieving this task, CMS is installed in some challenging locations, such as trackside and via under or over track crossings (UTX/OTX respectively).

The majority of M&E works are dependant on completion of building works. The provision of temporary CMS is required to provide the routes to serve M&E and Railway Systems plant and equipment in time with the program milestone of achieving Key Output 1 (KO1). This being, Farringdon Station is to be capable of accommodating a 12 car Thameslink train service on the 9th December 2011.

The provision of temporary CMS routes negates the significant risk to KO1 of delay to completion of the permanent CMS routes, as cable installation can only take place when entire routes (end to end) are completed.



Temporary CMS (OTX) routes for station services above Platforms 1 & 2 (Underground) underneath the Terminal Street Concourse.

Key concerns during the design and installation process include:-

- Ensuring the mitigation of providing temporary CMS is at the lowest cost possible to achieve the given task;
- That all CMS provided is compliant with industry; railway and underground railway standards and statutory instruments. This needs to take into consideration heritage issues associated with the existing Grade II listed building;
- That the temporary CMS is as aesthetically pleasing as possible.

Benefits

- Disruption to station functionality is minimised. Throughout the project Farringdon Station has remained fully operational during the working week with planned closures for installation works during night time and weekend hours only.
- Provision of temporary CMS routes enables M&E and Railway Systems infrastructure to be put into serviceable use, prior to completion of building works that affect the permanent CMS routes.
- Achievement of the program requirements for KO1.



Temporary CMS routed across the front of the existing Farringdon Station Building.

Targets and Objectives

The works concerning Permanent CMS routes and the mitigation requirement of providing temporary routes carry the following targets and objectives, namely:-

- Provide the required temporary CMS to enable M&E and Railway Systems plant and equipment to function at KO1 and until the permanent CMS routes are installed between December 2011 and completion of the Farringdon Station project in July 2012.
- Install adequate temporary CMS to achieve KO1 and compliment any permanent CMS installations that are achievable alongside the KO1 requirements.
- In the lead up to KO1, periodically review the mitigation of providing temporary CMS routes with the aid of simplifying provisions and reducing capital expenditure of the temporary provision.
- During the process of designing and providing the temporary CMS routes, to interface with other construction parties, such as Civil Engineering; Railway Systems and the Project Architect (Who ensures heritage issues are addressed in the required manner).