

BIM CASE STUDY

USING BIM TO ENHANCE ON-SITE HEALTH & SAFETY (Manchester Town Hall Complex Refurbishment Project)

Summary:

This case study highlights Laing O'Rourke's innovative approach to using BIM as a site induction tool & creating visual method statements to enhance Health & Safety and workmanship on site.

Aims & Objectives:

- Provide clarity from day one of site safety requirements to all site personnel (Operatives & Managers)
- Use BIM to clarify demarcation of site boundaries, safe access routes & areas out of bounds
- This inner city site is very tight and can be quite confusing. The use of BIM helped to provide clarity for all.
- Use visual method statements to enhance workmanship and Health & Safety, by breaking down operations into logical visual stages.
- BIM virtual animation to fly through and around site, indicating all H&S issues on site during site inductions.
- Communicate visually to a multi ethnic workforce (English not first language).

Project Overview

Project Value

£100m

Contractor

Laing O'Rourke

Client

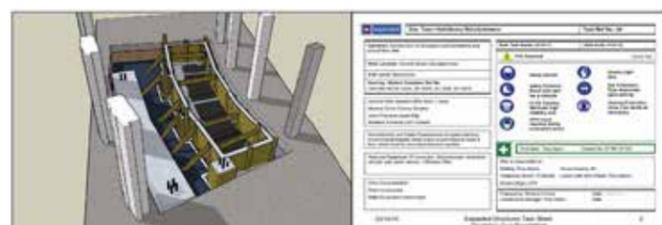
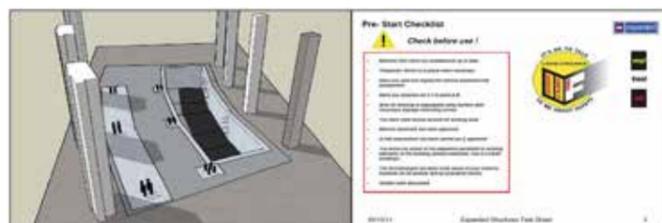
Manchester City Council

Start

April 2011

Completion

2013



Benefits & Value:

Using BIM provides clarity on a very complex site and reduces confusion and enhances on site Health & Safety standards.

Use of visual method statements enables works to be right first time, which reduces mistakes and saves time & money.

BIM can help explain complex information in a visual way that meets the need for a varying audience from all different backgrounds to understand how the site is laid out, things to watch out for, etc.

Quote: D. Grayson, Manchester City Council Lead Health & Safety Officer

"BIM has provided us with an extremely useful tool to familiarise staff on the design and location of fire protection measures and their Means of Escape prior to having hand-over/full access to the building."

Quote: G. Fenton, Laing O'Rourke Project Manager

"We have used the BIM successfully on the Town Hall Complex Transformation Project to educate site personnel in variety of Health & Safety initiatives from site inductions, logistics and Fire & Emergency evacuation."

The use of BIM has given the construction team the opportunity to review tasks virtually prior to undertaking any physical works. By doing this the team could identify and understand hazards at an early stage and were able to introduce mitigation measures to manage risk before works got to site."