

What's happening?

Best practice: Designing out waste and material use at Horsham

Background

BCS Design was contracted by Carillion to complete the GRIP 5 design for Horsham field sidings and Maintenance Delivery Unit (MDU) facilities. The works involved replacing and remodelling of the existing sidings including driver's walkways, train servicing equipment and facilities as well access and servicing of a new modular MDU building.

Carillion set a target within their Sustainability Delivery Statement to reduce waste generated by using the waste hierarchy. A key element to this was to reduce waste during the design which was subsequently included in the BCS Design Environmental Management Plan.

BCS used the outline design drawings provided by the client to calculate all waste and material impacts. This provided the engineers with clearly quantified targets for reduction and focused their efforts on key waste streams and material requirements.

During the design BCS identified opportunities to avoid and design out waste streams by reducing the need for excavation and subsequent fill materials by reducing track level and layout alterations.

BCS subsequently quantified the waste and material impacts from the final detailed design drawings and compared the figures to those calculated from the outline design. The key achievements are outlined below

Benefits

- The detailed design reduced the estimate waste production by 189 tonnes (excavated spoil)
- Opportunities identified to re-use **553 tonnes** of waste on site
- Opportunities identified to re-use **400 tonnes** of waste off site

Calculating baseline waste figures at the start of detailed design has proved a valuable tool to highlight waste impacts and subsequent opportunities for reduction and management of waste. Designed out waste and on site re-use identified could save the project over sixteen thousand pounds. This helps to deliver value for money through quantified sustainable design actions.

- Anticipated savings of **£16,000**

Meeting TLP objectives & targets:

The project was able to meet the following objective of the Thameslink Sustainability Strategy as a result of BCS's design:

- 11- To reduce the cost of delivery of TLP
- 18b- Reduce waste during the design process



