



Church Village Bypass Project *Tonteg, RCT*

Recycled aggregate and built environment waste materials used in development of 7km new road.

Following extensive public procurement, Rhondda Cynon Taf County Borough Council announced its ambition to develop 7km of single and dual carriageway to divert large volumes of traffic from the overused A473.

The £90m Church Village Bypass Project included two road bridges, four roundabouts, three community footbridges, two cattle grids and one subway.

An integrated partnership team involving Atkins and RPS and led by Costain developed an effective collaborative working relationship to deliver the project. The Waste Programme team from Constructing Excellence in Wales liaised with the partners presenting options regarding use of alternative materials, such as recycled aggregates, in the scheme.

The large-scale excavation and development project required a huge amount of material to cover the broad regeneration area and to keep up with construction timescales – a huge 500 tonnes of recycled aggregate material was specified per day.

PROJECT DETAILS

Construction of a 7km single and dual carriageway.

Best practice themes:

- Use of recycled aggregates and stabilisation materials in construction



PROJECT TEAM

Client: Costain Group Principal Contractors
Atkins Design and Project Management
RPS Built and Natural Environment Consultants

KEY CONTACTS

Paul Jennings, CEWales
paul.jennings@cewales.org.uk





The Constructing Excellence in Wales team researched and liaised with a number of sustainable aggregate suppliers within an optimum 20 mile radius to establish reliable supply chain.

The client was enthusiastic about the inclusion of recycled aggregates in the construction and recorded use of 31,000 tonnes of recycled material from a local company adjacent to the site, however, the scale of the project and demands

for materials to be included in the scheme outweighed supply at the time of construction.

Nevertheless, the scheme reached a target of including 60% of imported stone from recycled waste, which was achieved by the use of blast furnace slag for all carriageway Capping and Subbase and inclusion as aggregate asphalts.

The new bypass has received widespread praise for the construction and landscaping principles and has provided substantial congestion relief for more than 40,000 residents. The landscape has also provided a new cycle route, remediating countryside and linking communities.

