



Weymouth relief road

Pumped concrete

Sika® concrete system: Sika® ViscoCrete®

Client: Dorset County Council

Architect: Owen Williams

Main contractor: Skanska

Weymouth Relief Road

Hanson Concrete, with Sika concrete admixtures in the mix, supplied all the concrete to the long awaited A354 Weymouth relief road. The £87 million,10km scheme was constructed by Skanska, together with its design partners Owen Williams, for Dorset County Council. The new road is predominately a two lane single carriage-way, with areas accommodating climber lanes where appropriate. It is designed to relieve congestion along both the A354 Weymouth / Dorchester road and the A453 to the east and surrounding areas.

With nine bridges on this project, the majority of the concrete was pumped. To ensure good delivery through the line and to avoid blockages, **Hanson Concrete** supplied a concrete mix incorporating **Sika® ViscoCrete®** superplasticising admixture. This ensured that the concrete had a high consistence without segregation together with increased strength.

Another big factor in choosing this admixture, was that the concrete needed to retain a long 'open' time, meaning that it retained its consistence for a long time before starting to set or harden. This was particularly important for two reasons.

Firstly, in the summer especially, the traffic coming from either Dorchester or Weymouth, where the two nearest **Hanson Concrete** plants are situated, could be extremely heavy, so travel times with concrete in the trucks can be long and unpredictable.

Secondly, when pouring such large masses as the bridge decks, the slower rate of set enabled the concrete to be placed without the fear of the formation of cold joints and ensured that the





concrete remained plastic long enough to be fully compacted.

Environmental considerations were high on the agenda in the planning of the relief road. A nature conservation area was being created at Lorton Valley, and sympathetic landscaping and planting was carried out adjacent to the road. A 1,000 car, park and ride facility will cut pollution and improve air quality in the area. New pedestrian, cycling and equestrian facilities are also included.

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