



Tensar case study Ref:095

Mancunian Way Footbridge, Manchester – Tensar Reinforced Soil Approach Ramps June 2002



Tensar Case Study

BENEFITS OF THE TENSAR SOLUTION

The Contractor made a cost saving of just over 35% compared with the original priced reinforced concrete option. Time savings were also made with construction completed in 8 weeks.

The client got a stable, low maintenance structural solution with an attractive finish.

PROJECT BACKGROUND

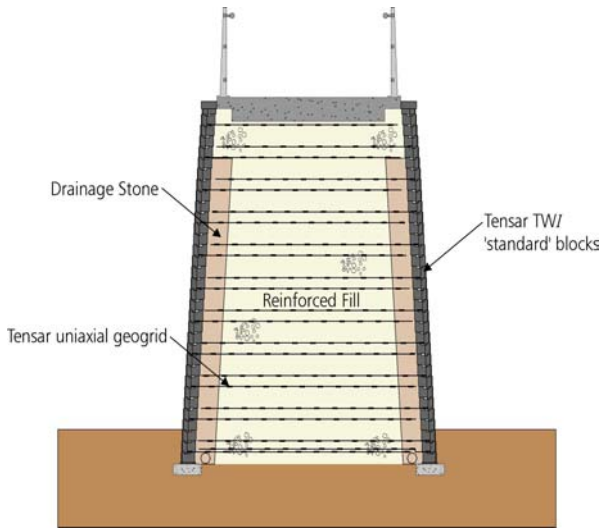
Tensar International were approached by the Contractor to provide a cost effective alternative to the original reinforced concrete proposals to form curved pedestrian approach ramps to the new bridge span over an urban Motorway. Wall heights varied up to 6m. The Contractor wanted to avoid expensive temporary works and an extended construction period and was looking for a cost effective structural solution to provide a beneficial alternative, which would fit within restricted site boundaries.

THE TENSAR SOLUTION

Tensar International provided the Contractor with a Professionally Indemnified design and construction drawings. The use of Tensar reinforced soil negated the need for any formwork or specialist operatives, which enabled quick and simple construction.

TECHNICAL PROJECT DESCRIPTION

The Tensar Wall System provides a full strength connection between the facing block and the geogrid reinforcement. The TWi Standard block was selected to give a durable split faced finish with a face inclination of 86°. Well graded granular fill to DoT 6I specification was reinforced with Tensar RE geogrids. The walls were designed in accordance with 'BS8006: Code of Practice for Strengthened/Reinforced Soils and other fills'. For the majority of the ramp lengths, the walls were detailed "back to back" as shown in the Figure below.



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CONTRACT DETAILS

Contractor:
Wrekin Construction

Architect
ARCA, Manchester

Client:
Manchester City Council



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ROADS & BRIDGES AGREEMENT
CERTIFICATE NO 00/R122

REINFORCED SOIL RETAINING WALLS AND
BRIDGE ABUTMENTS