




Single MSL (mechanically stabilised layer) delivering a bespoke solution and significant savings

 Subgrade Stabilisation  
Nº 453

## Axbridge Road

 Cheddar, Somerset

CONSTRUCTED IN 2022

## Bespoke, single layer MSL for a housing estate road in Cheddar

The project required the provision of a capping layer over weak ground, and the accommodation of construction traffic. It also had to provide a construction detail that would satisfy the requirements of the adopting authority, in this case Somerset County Council.

### CLIENT'S CHALLENGE

A capping layer was required to reduce the thickness of aggregate whilst achieving a surface modulus of 50MPa (5% CBR) which is equivalent to a foundation class 1 in CD225. Somerset County Council had concerns regarding possible utility work in the future that would compromise any geogrids positioned within the carriageway. One of their key requirements was to allow only a single layer of geogrid.

### TENSAR SOLUTION

The original design for the Tensor mechanically stabilised layer (MSL) contained 2 layers of grid to accommodate the poor ground. A re-design was carried out using Tensor InterAx, which required a single layer of geogrid and offered a reduction in overall thickness of the capping layer.

## Benefits

**£86,000 (28%)  
estimated reduction**  
in construction cost

**1.5 days (37%)  
estimated reduction**  
in construction time

**6,320kg CO2e (38%)  
estimated reduction**  
in environmental cost