

Bristol Metrobus—Portishead Skew Bridge

Bristol 2017



Client	West of England Travel
Contractor	Balfour Beatty
Consultant	WSP/Parsons Brinckerhoff

Bristol Metrobus is part of a package of transport infrastructure improvements in the West of England which have been designed to help unlock economic growth, tackle poor public transport links in South Bristol, long bus journey times and high car use in the North Fringe of the city and M32 motorway corridor.

The Bristol Metrobus route is carried over the Portishead freight railway by Portishead rail skew bridge North and South approach ramps. The busway route is unguided over the full length of the Southern Approach Ramp, Skew Bridge and Northern Approach Ramp. The route crosses the combined pedestrian footpath / cycleway underpass at a skew angle of 30 degrees.

Both approach ramps to the bridge lead up to the bridge which sits on an insitu concrete bankseat which is on true Reinforced Earth bridge abutments that support the full bridge deck loads.

The panel arrangement makes use of a series of vertical slip joints to create a flexible facing which can cope with differential settlement that might occur between the abutment and wall sections of the structure. The arrangement also allows for a simple method of construction with all construction work taking place from behind the panels and edge protection easily incorporated into the panel build.