

**National Asset Delivery
Technical Surveys and Testing**

Site Information for 570135

**M5, J23-24, 194.10, Huntworth Viaduct
Concrete Survey and Testing**

FOR INFORMATION ONLY

1 SITE INFORMATION

1.1 Site boundary, extents and access arrangements

Huntworth Viaduct carries the M5 over a Somerset County road, the River Parrett, the Bristol to Exeter mainline railway, the Bridgwater to Taunton canal and another Somerset County road at MP 194.10. Refer to Figure 01 for structure location.

It was constructed in 1973 and has a zero skew. The viaduct comprises twin steel box girders linked by transverse steel plate girders at 3m centres. Steel plate girders, also at 3m centres, cantilever from the outer faces of the box girders. A 230mm thick reinforced concrete slab acts compositely with the box girders and plate girders.

The result is a continuous 17 span structure. Each box girder is supported on common reinforced concrete abutments and 16 No. individual intermediate reinforced concrete piers.

Each pier is founded on an individual pile cap and pile cluster. Each box girder can be entered via access hatches in the outer web, at the midspan of each span. Once inside, the entire length of the box is accessible.

The box girders have internal lighting and an electrical power supply.

The private land between the river and canal can be accessed from the south via the local authority swing bridge over the canal. This route/road/track crosses the railway at a level crossing, leading to the area of land between the railway and the river. This area can also be accessed via the railway bridge and marsh lane, There is a limited headroom of 5'6".

Only the south compound and the footprints of the pier bases and abutments are currently in Highways England ownership. The remainder of the land under and adjacent to the viaduct is in disparate private ownership, with easements existing to allow maintenance access.



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Figure 1: Location of the Huntworth Viaduct

1.2 Pavement

Surfacing

Northbound Carriageway:

2016 50 mm HRA Plane and Inlay

1992 50mm Regulating course

Waterproofing: Serviced (W G Grace Ltd) Servidek/Servipak – Board (Bitumen)

Southbound Carriageway

Waterproofing: Pitchmastic PmB Two-Part Polyurethane Elastomer

2015: 50mm HRA Surfacing

2015: 50mm Regulating course

1.3 Drainage

The drainage on the bridge deck is within the kerb. There is drainage behind the abutments. Plan view details of the drainage system can be found in the Appendix and PCI.

1.4 Geotechnical

There are geotechnical records shown in the as-built drawings within the PCI.

Ground condition surveys as part of this structure are expected to be limited.

1.5 Soft Estate and Environment

The area underneath the bridge has a variety of land owners with a variety of land easements and agreements in place. The structure crosses a variety of land types including minor roads, railways, rivers, canals, farmland and general storage areas.

1.6 Traffic Signs, Road Markings

N/A

1.7 Lighting

There is no street lighting on this part of the network. There is no street lighting on Dunwear Lane or Marsh Lane

1.8 Structures and Buildings

The main Highways England structure along this section of highway is the Huntworth Viaduct.

In relation to Local Authority asset, there is a Canal Crossing that provides access to the underside of the structure. This structure has an all-in 16 tonne weight limit.



Photo 1: Swing Bridge Access & Restriction

1.9 Tunnels

N/A

1.10 Technology

There are highway loops within the carriageway, see C2 searches within PCI.

1.11 Statutory Undertakers

There are a variety services within the vicinity of the structure, see C2 searches within PCI.

1.12 Traffic

The M5 traffic counts are listed below.

WB AADT 38206

SB AADT 38258

There is limited information on the Dunwear Lane traffic use, however it is a relatively minor road. Marsh Lane and the various tracks underneath the structure can also be accessed by vehicles. **Annex 1 – Drawings**

This Annex includes the General Arrangement Drawing 405/202/B04/3D and the Drawing 610/1 which details the original paint system. Further As-built drawings can be found within the PCI.

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