

Dear

Request for Information - ATISN 24932

Thank you for your request for information dated 11 July 2025.

You asked for the following information or documentation relating to the Brynglas Tunnels in Newport:

- 1) **Safety Standards Compliance** - Do the Brynglas Tunnels currently meet all applicable European safety standards for tunnel infrastructure, particularly in relation to ventilation, fire resistance, structural integrity, and evacuation procedures?
- 2) **Failure Contingency Planning** - What specific plans or protocols are in place should the Brynglas Tunnels experience a critical failure—whether due to structural collapse, fire, flooding, or any other major event?
- 3) **Civil Engineering Concerns** - Are there any known technical concerns or limitations—such as outdated structural design, geological instability, or insufficient load-bearing calculations—identified by civil engineers during inspections or assessments over the past five years?

You also requested any recent inspection reports, maintenance audits, or improvement plans related to the tunnels.

Our Response

Welsh Government holds some the information you have requested.

Background

The Brynglas Tunnels first opened in 1967 and have been in operation continuously ever since. The tunnels comprise twin bores, each 360 metres long from portal to portal. Each bore is symmetrical and accommodates a 7.3 metre wide 2-lane carriageway and two 0.75 metre wide verges. The portals are constructed with wing walls and central anti-recirculation walls approximately 18 metres long to minimise the recirculation of smoke from one bore to the other. The arches of the bores are formed in mass concrete that varies in thickness from 450mm at the crown to 1200mm at the base. The base slab is reinforced concrete varying in thickness from 1000mm to 1500mm. Concrete dado panel are installed at low level at the back of the verges and a secondary cladding system is present above the dado panel and rises approximately 3.5m. The secondary cladding provides a reflective finish that helps distribute the lighting. The tunnels operate at 50mph.

Safety Standards Compliance - Do the Brynglas Tunnels currently meet all applicable European safety standards for tunnel infrastructure, particularly in relation to ventilation, fire resistance, structural integrity, and evacuation procedures?

The tunnel being less than 500m long, does not fall within those covered by the EU Directive 2004/54/EC and its UK implementation the Road Tunnels Safety Regulations (RTSR) 2007, amended 2009 and 2021. The tunnels were refurbished in 2017/18 and systems were installed in accordance with national standard BD78/99.

The tunnels meet the requirements of that standard. The standard primarily deals with life safety in the event of a significant incident, such as fire.

Systems have been provided to detect and manage any such incident such as:

- Video Automatic incident Detection (VAID)
- Linear Heat Detection
- Public Address System
- Emergency panels with fire extinguishers and SOS telephones
- Lane control and tunnel closure sign system
- CCTV
- Wayfinder evacuation signage
- LED lighting including emergency and evacuation lighting
- Fire hydrants
- Initial evacuation points
- Drainage attenuation tank to contain spillages

No mechanical ventilation or automated fire suppression systems are provided as risk assessment has determined they are not necessary for evacuation, primarily due to the short length of the tunnel and the presence of the other above mention life safety systems.

All the systems are supported by remote monitoring (SCADA – System Control and Data Acquisition) and control room staff based at Coryton traffic management centre. Emergency operating procedures, emergency response plans and minimum operating requirements are in place. These are supported by training and emergency exercises.

Regulatory Reform (Fire Safety) Order 2005 risk assessments are carried out annually. It is accepted that equipment and infrastructure damage may occur in the event of a fire. Education campaigns and safety information is available on Traffic Wales website. [Driving safely in tunnels | Traffic Wales](#)

Failure Contingency Planning - What specific plans or protocols are in place should the Brynglas Tunnels experience a critical failure—whether due to structural collapse, fire, flooding, or any other major event?

Any major event at the tunnel will implement procedures and the full closure of the tunnel. South Wales Trunk Road Agents have network contingency plans. The primary focus is on life safety. Fire is considered the most severe event. There will be an M4 route study commission looking at network resilience and the tunnels will be considered as part of the scope.

Civil Engineering Concerns - Are there any known technical concerns or limitations—such as outdated structural design, geological instability, or insufficient load-bearing calculations—identified by civil engineers during inspections or assessments over the past five years?

The tunnels are vulnerable to damage from fire. The tunnel structure is subject to General Inspection every two years and Principle Inspection every six years. Mechanical and Electrical maintenance is carried out four times a year on a rolling programme. Our South Wales Trunk Road Agents hold the inspection records.

Inspection reports and maintenance audits are undertaken and held by our South Wales Trunk Road Agents who can be contacted at enquiries@southwales-tra.gov.uk

Next Steps

If you are dissatisfied with the Welsh Government's handling of your request, you can ask for an internal review within 40 working days of the date of this response.

Requests for an internal review should be addressed to the Welsh Government's Freedom of Information Officer at:

Information Rights Unit,
Welsh Government,
Cathays Park,
Cardiff,
CF10 3NQ

or Email: Freedom.ofinformation@gov.wales.

Please remember to quote the ATISN reference number above.

You also have the right to complain to the Information Commissioner. The Information Commissioner can be contacted at:

Information Commissioner's Office,
Wycliffe House,
Water Lane,
Wilmslow,
Cheshire,
SK9 5AF.

However, please note that the Commissioner will not normally investigate a complaint until it has been through our own internal review process.

Yours sincerely