

Railway World Heritage Nomination
THE BIRTH OF THE RAILWAY AGE (a serial nomination)

Site A

Causey Arch and the Tanfield Waggonway, Stanley Parish, Derwentside District, Co. Durham

Ownership:

Durham County Council

Local Authorities:

Durham County Council

Listing Details:

Causey (Tanfield) Arch Grade 1 listed in 1950, LBS 439365
Scheduled Ancient Monument, no. 24666

Tanfield culvert, arch and retaining walls on the west side of embankment,
Grade 1 listed 1987, LBS 439364

National grid references of sites:

Causey Arch NZ 2013 5589

Tanfield embankment NZ 2038 5605

Site B

Wylam Waggonway and Stephenson Birthplace, Northumberland

Ownership:

Cottage: National Trust
Northumberland County Council to the west.
Newcastle Upon Tyne City Council to the east.

Local Authorities:

Northumberland County Council
Newcastle City Council

Listing Details:

George Stephenson Cottage: Grade II*

National grid references of site:

Waggonway NZ 117 646 to NZ 186 644
George Stephenson Cottage NZ 126 650

Site C

Stephenson Locomotive Works, Newcastle upon Tyne:

Ownership:

Silverlink Holdings Ltd, Stockbridge House, Trinity Gardens, Newcastle upon Tyne
NE1 2HJ
(Chairman and Managing Director, David Clouston OBE FRICS)

Local Authorities:

Newcastle City Council

Listing Details:

Five separate Listings:

- Stephenson's Works - Erecting shops etc, South Street, Newcastle-upon-Tyne, c.1823-1827. J T Dove, Showroom, Nos 2-14: Grade II
- Former Coppersmiths' shop and warehouses with offices attached, c1823-1825, extended c1845, South Street, Newcastle-upon-Tyne: Grade II
- Hawthorne Works, c1845, now J T Dove Ltd (Building Materials) South Street, Newcastle-upon-Tyne: Grade II
- No 20 South Street, Newcastle-upon-Tyne and building to rear: Former engine manufactory of Robert Stephenson & Company. Boiler/plate shop and administrative offices c.1849-59 as part of the Stephenson Company Factory: Grade II
- Former Robert Stephenson and Co. Fitting Shop c.1867, South Street, Newcastle-upon-Tyne: Grade II

National grid references of sites:

Within NZ 24 63

Site D

Stockton & Darlington Railway (1825), County Durham

Ownership:

Durham County Council (Shildon museum sites and former railways to Etherley and Haggerleases)
Darlington Borough Council (North Road station Darlington and surrounding area)
National Museum of Science and Industry (lease of Shildon museum site)
Network Rail (operating railway Darlington to Shildon)

Local Authorities:

Durham County Council
Darlington Borough Council

Listing Details:

Twenty-one separate listings (non-exhaustive):

Darlington

- Skerne Railway Viaduct, Northgate, Darlington: Grade II

- North Road Railway Station, Station Road, Darlington: Grade II*
- Goods Shed East South East Of North Road Station, Station Road, Darlington: Grade II*
- Stockton And Darlington Railway Carriage Works, Darlington: Grade II
- Lime cells, Hope Lane, Darlington: Grade II

Heighington

- Locomotion One Public House and east platform (previously listed as Heighington Railway Station): Grade II
- Heighington Signal Box: Grade II

Shildon – Network Rail

- North section of railway bridge, 150 metres south of East Thickley Grange, Shildon: Grade II
- Shildon Signal Box, Spout Lane, Shildon: Grade II
- Aqueduct across railway, Chestnut Close, Shildon: Grade II
- South portal of Shildon Railway Tunnel, Shildon: Grade II

Shildon Museum site (Locomotion)

- Nos. 1 and 2 Soho Cottages (Hackworth Museum), Shildon: Grade II
- Nos. 3 and 4 (Soho Cottages), Shildon: Grade II
- Soho Engine Shed, Shildon: Grade II
- Wall, 10 metres south-west of Black Boy Stables, running west for 150 metres to south of Soho Engine Shed: Grade II
- Coal drops, 110 metres east of Soho Engine Shed, Shildon: Grade II
- Black Boy Stables, Shildon Grade II

Shildon to Etherley and Haggerleases

- Accommodation Bridge 10 metres west of Brusselton Lane, Shildon: Grade II
- No. 1 Engine houses, steps and retaining wall to left, Brusselton, Shildon: Grade II
- No. 2 Engine Houses, Brusselton, Shildon: Grade II
- Nos. 3 and 4 (Engineman's House), Brusselton, Shildon: Grade II

National grid references of site:

Shildon NZ 236254
 Skerne Viaduct, Darlington NZ 292151

Site E

The Bowes Railway (1826), Gateshead and Sunderland

Ownership:

Majority of preserved line: Sunderland City Council
 Parts of the trackbed and one engine house: Gateshead Borough Council
 Leased to and managed by the Bowes Railway Company Ltd

Local Authorities:

Sunderland City Council
 Gateshead Borough Council

Listing Details:

Within the Scheduled Ancient Monument, Monument number 1028504, NMR number Linear 151
Red Hill House, Washington, Springwell Road: Grade II

National grid references of site:

GR NZ 259 568 - 299 609

Site F

Liverpool Road, Manchester

Ownership:

Liverpool Road Station, Manchester: Manchester Museum of Science & Industry
Irwell Bridge and adjacent viaduct + Water Street Bridge, Nikal Ltd., Barnett House, 53, Fountain Street, Manchester, M2 2AN (Nick Payne, Managing Director)

Local Authorities:

Manchester City Council and Salford City Council

Listing Details:

Five separate Listings:

- Former Liverpool Road Railway Station and Station Master's House: Grade 1
- Old Warehouse to north of former Liverpool Road Railway Station: Grade 1
- Railway bridge over River Irwell to former Liverpool Road Station: Grade 1
- Railway viaduct over River Irwell: Grade II
- Railway viaduct linking bridge over Irwell to Liverpool Road Station: Grade II

National grid references of sites:

Within SJ 82 97

Description of Sites

Introduction

Of all the great nineteenth century technologies the railway – iron rails and steam locomotive engines - had the most profound effect on societies and economies worldwide. From this grew the railway as we know it today. And, across the globe, it is to the railway that we are again turning for the transport of the future.

The modern railway had its origins in Britain. This serial nomination comprises six key sites that trace the evolution of the railway from its pre-locomotive roots in North East England to the opening of the world's defining model for the modern main line railway, from Liverpool to Manchester, in 1830. The sites are:

Site A

Tanfield (Causey) Arch and adjoining embankments (1727), County Durham;

The Tanfield Arch and adjoining Embankment originated as components of the Tanfield waggonway, an early wooden railway constructed to join the new coal pits of Tanfield to staithes on the River Tyne. The Embankment, ca. 100 yards long and 300 yards wide at the base, completely fills the valley's broader northern end. At the narrower southern end, it is crossed by Causey Arch, a single semi-elliptical stone arch of 105 feet springing from substantial masonry abutments. Built by Ralph Wood between 1725 and 1727, it was the longest single span bridge in Britain until the late 1750s. In its heyday, the line carried nearly 1,000 waggons per day.

The Arch is recognised as the oldest surviving railway bridge in the world and, with the embankment, is the greatest monument of the waggonway age. Famous to contemporaries, it is the feature that first alerted a wider public to railways. Both sites are Grade 1 Listed, and the Arch is also Scheduled. The structures are substantially original and in good condition. The site is served by a car park and pathways in an outstanding natural setting. The Tanfield Railway, which still uses part of the embankment, is the oldest working railway in the world.

Site B

Wylam Waggonway (1748) and George Stephenson's birthplace, Northumberland / Newcastle upon Tyne.

The Wylam Waggonway opened in 1748 to convey coals from Wylam Colliery along the banks of the River Tyne to Lemington Staithes on the tidal river for shipping. It was in places like Wylam that the wooden waggonway matured into a crucially important means of transporting coal from mines to markets in developing industrial centres and in London.

George Stephenson (1781-1848) was associated from his earliest youth with waggonway development. He was born in Street House (Grade 2*), beside Wylam Waggonway and subsequently worked as an engineman for other collieries. This experience shaped his career as a railway pioneer. Street House is now owned by the National Trust .

In 1812 Christopher Blackett (1751-1829), William Hedley (1779-1843), and Timothy Hackworth (1786-1850), experimented at Wylam with a steam locomotive and by 1813 the railway had become the world's second steam-operated working railway and the first to be operated by adhesion. The line operated until 1867 and was subsequently rebuilt as part of the national railway network. Since closure in 1968 the line has become a popular public cycleway and footpath. Two of its original locomotives, of 1812/13, are preserved in the Science Museum, London and the National Museum of Scotland. These are the oldest railway locomotives in the world.

Site C

Stephensons' Locomotive Works (1823), South Street, Newcastle upon Tyne;

This site is occupied by the buildings of the world's first locomotive factory. It was established in 1823 by George and Robert Stephenson (1803-1859) for manufacturing steam locomotives and other railway equipment. Their evolving locomotive expertise continued the pioneering work of earlier northeast engineers at Wylam and elsewhere, and made possible the transition from horse-drawn waggonway to steam railway.

Stephenson locomotives contributed to the development of steam-hauled mineral railways, notably the Stockton & Darlington Railway. Robert Stephenson's remarkable research and development programme between 1828 and 1830, led to the building of the world-renowned *Rocket*, winner of the Rainhill Locomotive Trials, and the *Planet* class, the progenitor of main line motive power around the world that first operated from Liverpool Road station in Manchester.

The site includes the original machine and erecting shops dating from 1823 which are identified by commemorative plaque. Robert Stephenson & Co. continued to build locomotives and other steam engines here into the

twentieth century, the remainder of the site thus being a remarkable legacy of developing workshop design and practice. The site lends itself to interpretation for public benefit, thus forming an integral part of the story of the British contribution to early railway development.

Site D

Stockton & Darlington Railway (1825), County Durham and Borough of Darlington

The Stockton & Darlington Railway was the first wholly mechanised public railway in the world to carry both freight and passengers. As such it is a key milestone in the evolution of the railway. Opened in 1825, it was engineered by George Stephenson, who also supplied its first locomotives from South Street. The S&DR's success informed both the design and financing of the 1830 Liverpool & Manchester Railway.

The site comprises three elements:-

Darlington to Shildon –

Still in use as a minor passenger and freight line. Includes the 1825 earthworks, several bridges, Heighington Station and the Skerne Viaduct (the oldest major structure on Britain's rail network). Darlington North Road station building (1845) houses a museum and library largely devoted to the S&DR.

Shildon –

The world's first steam-powered public passenger train departed from here in September 1825. The home of Timothy Hackworth, who worked at Wylam and South Street before becoming the S&DR's first locomotive engineer is now part of the National Railway Museum's Shildon branch, *Locomotion*.

Shildon to Etherley and Haggerleases –

Stephenson's original route of 1825 and an 1830 branch including earthworks, remains of winding houses and several technologically important bridges: a pioneering masonry skew bridge at Haggerleases and the abutments of the world's first iron main line railway bridge across the River Gaunless. The bridge is preserved in the National Railway Museum.

Site E

Bowes Railway (1826), Gateshead and Sunderland.

The preserved section now known as the Bowes Railway opened in 1826, running from the Mount Moor and Springwell collieries down to Jarrow staithes. Following advice from George Stephenson, it was constructed with stationary engines and self-acting rope-hauled inclines, while its locomotives were the first to be ordered from Robert Stephenson & Co. At closure in 1974,

the line was one of several rope-hauled railways that had outlasted the steam locomotive on Britain's railways.

Railway and ancillary mine buildings were retained, together with about two miles of track which includes an electric-powered haulage plane and a balance plane. These form the world's only working standard-gauge rope-hauled railway and demonstrate the technology that allowed the railway to escape the constrictions of horse and locomotive power.

The site is a Scheduled Ancient Monument and contains Listed Buildings. It is owned mainly by Sunderland City Council, partly by Gateshead Borough and leased to the Bowes Railway Company Limited, a trust. Parts of the site are in poor condition, although a Conservation Plan has recently been completed. It has public facilities and is open on an irregular basis.

The Bowes Railway is a unique survival of a very important but often under-rated aspect of railway development.

Site F

Liverpool Road Station, Manchester (1830).

The Liverpool Road terminus is the world's oldest main line station. The Liverpool Road complex contains the passenger building (Grade 1), housing the original departure and arrival facilities and retail outlets, anticipating the facilities required by today's stations and airports. It also contains the goods warehouse (Grade 1) with under-cover goods handling, storage and distribution facilities, anticipating modern freight and distribution logistics. Furthermore, the Irwell Bridge (Grade 1) with George Stephenson's initials in the keystone, survives, together with the viaduct and the Water Street bridge (both Grade 2), which took the line from the Irwell crossing into the station. They were all built by Stephenson for the Liverpool & Manchester Railway, opened 1830, the world's first main-line railway. The station and warehouse buildings, which thus date from the dawn of mass passenger transport and rapid goods conveyance, form the core of Manchester's Museum of Science & Industry. Public appreciation of the buildings and bridges is high.