

The 1825 Stockton & Darlington Railway: Historic Environment Audit

Appendix 4. County Boundary to North Road Station, Darlington.

October 2016 (2019 revision)

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NOTE

This report and its appendices were first issued in October 2016. Subsequently it was noted that some references to S&DR sites identified during fieldwork and given project reference numbers (PRNS) on an accompanying GIS project and spreadsheet had been referred to with the wrong PRN in the report and appendices. This revision of 2019 corrects those errors but in all other respects remains the same as that issued in 2016.

Introduction

This report is one of a series covering the length of the 1825 Stockton & Darlington Railway. It results from a programme of fieldwork and desk based research carried out between October 2015 and March 2016 by Archaeo-Environment and local community groups, in particular the Friends of the 1825 S&DR. This report outlines a series of opportunities for heritage led regeneration along the line which through enhanced access, community events, improved conservation and management, can create an asset twenty-six miles long through areas of low economic output which will encourage visitors from across the world to explore the embryonic days of the modern railway. In doing so, there will be opportunities for public and private investments in providing improved services and a greater sense of pride in the important role the S&DR had in developing the world's railways.

This report covers 7.25km (4.51 miles) between the County/Borough Council Boundary south of Coatham Lane and North Road Station (figure 1); it is entirely within Darlington Borough Council land. This line is live and access to it has been limited to views from rights of way and highways. Consequently, it has not been possible to outline the full extent of survival of heritage features on this stretch of the S&DR. This report outlines the gaps in our knowledge requiring further research and the major management issues needing action. It highlights opportunities for improved access to the line and for improved conservation, management and interpretation so that visiting the remains of the S&DR merits a trip from the other side of the world.

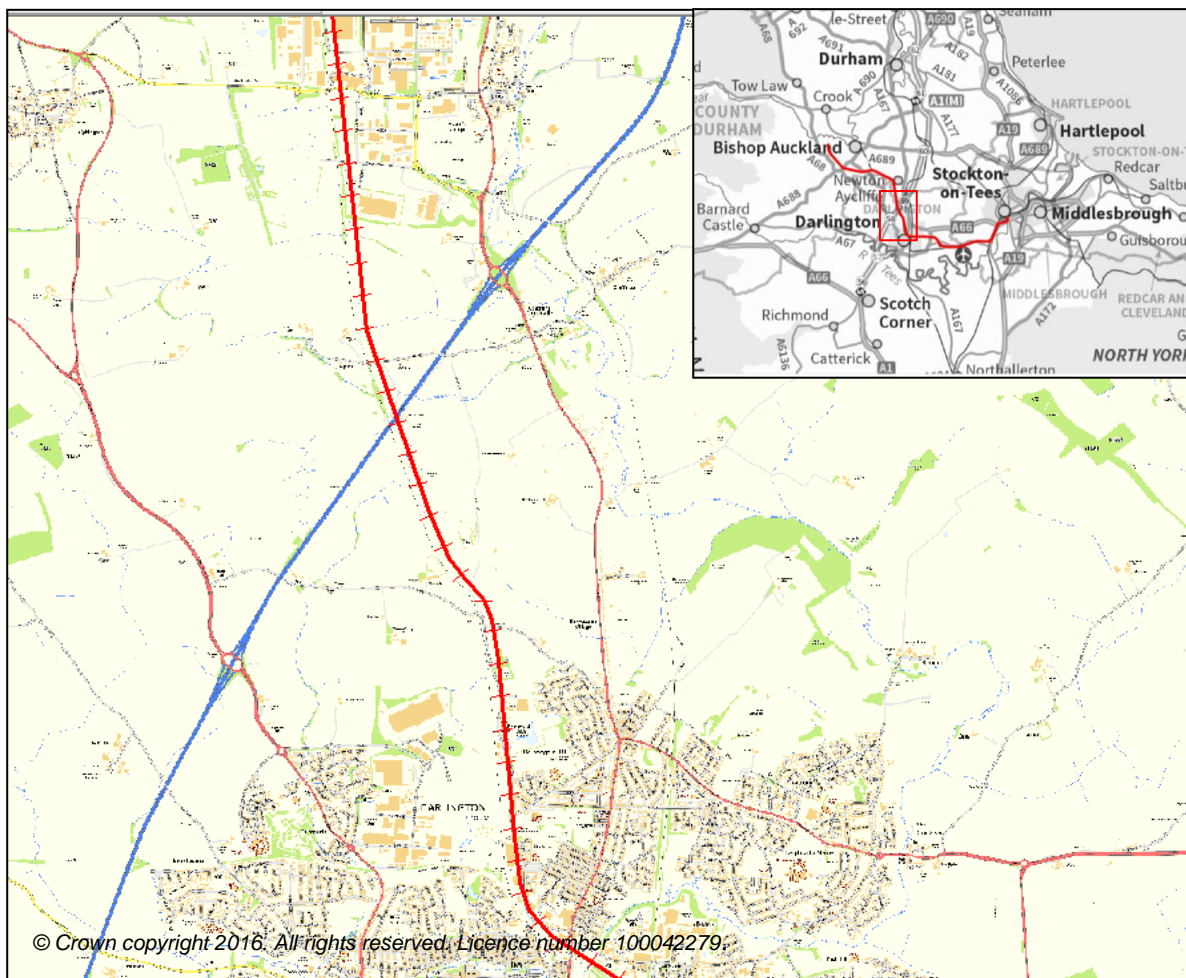


Figure 1. Area discussed in this document (inset S&DR Line against regional background)

Historic Background

On the opening day of the S&DR the waggons were coupled to Locomotion No.1 along with the first railway carriage “Experiment” at Shildon, on their way to Darlington. The route was a steady downhill from Heighington to Darlington and compared to the problems at Sim Pasture before, it was uneventful. The young Robinson lads from Aycliffe had run all the way after the train and would keep going as far as Fighting Cocks. The train would arrive at Darlington at 12 noon having had a chance to test its speed, reaching 15 miles an hour on certain parts of the line. ...never before had they seen the trees, fences, and hedges glide away so rapidly, or did their ribbons and handkerchiefs ever flutter in such a wind as they did that day. The horses were hard put to it to keep up with the train, but they gained on her when she slowed up, and the long train entered Darlington in procession much as it left Shildon’ (Heavisides 1912, 65).



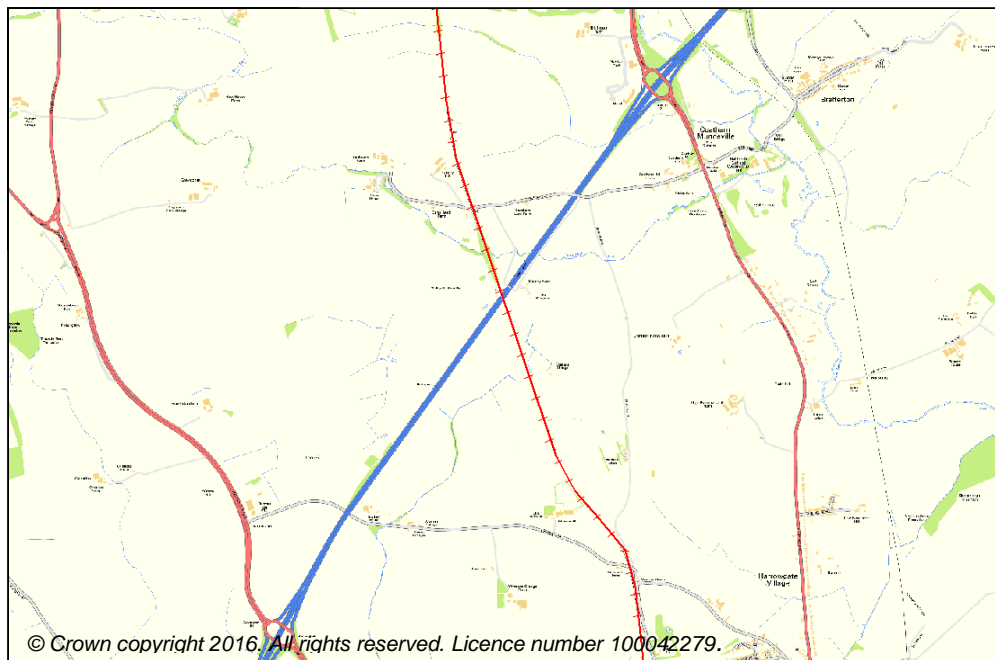
Figure 2. George Stephenson's map of the proposed S&DR railway, showing the route, in red, from

Heighington to Darlington and incorporating some of Overton's earlier proposed route (in blue) surveyed in 1822 (DRO Q/D/P/8/1).

1.0 DURHAM/DARLINGTON BOUNDARY TO WHESOE ROAD, DARLINGTON

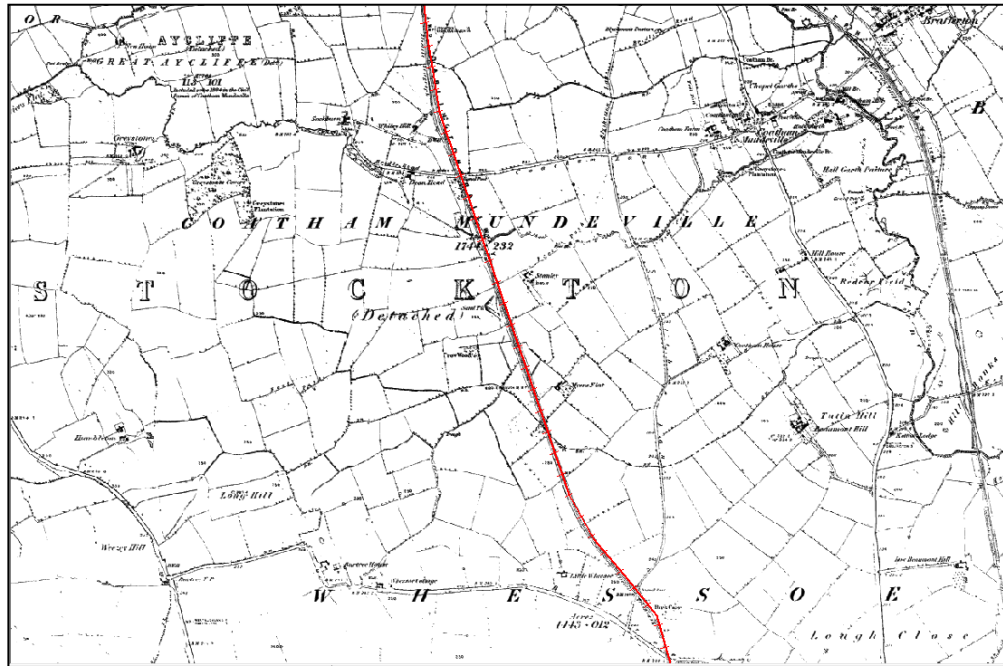
The line, still carrying rail traffic after nearly 200 years, passes in a north south direction through the cutting at Whiley Hill and across the level crossing next to the S&DR Crossing Keeper's House through a landscape of enclosed arable fields lined with hedgerows and the tree lined Dene Beck. The line is cut by Coatham Lane and the A1(M) and a modern bridge crosses the line at Whessoe Road. This stretch of line also crosses Myers Flat, a boggy area which required a substantial embankment with accommodation bridges, and drainage features. This provided Stephenson with hard learned engineering experience which he was to apply to Chat Moss on the Liverpool and Manchester Railway a few years later.

Figure 3.
Durham/
Darlington
boundary to
top of
Whessoe
Road.



1.1 What survives and how do we protect it?

Figure 4. The same area in 1856 as shown on the OS 6" to 1 mile mapping series.



The line south of the administrative boundary can currently only be viewed from a public right of way that runs through Whiley Hill Farm (with some attractive 18th century buildings overlooking ridge and furrow). The right of way then overlooks the line before cutting across it. The recent widening of the line can be seen where Hitachi has created an additional track.



Plate 1. Additional track bed recently built for Hitachi on the left

At Whiley Hill the line passes a level crossing which is still overlooked by the delightful Crossing Keeper's Cottage, a listed building (HER 34804). This stone building with kneelers and multi paned casement windows once provided a good view of the line, but intervening trees now prevent this. The rear of the building which overlooks fields has very few windows – clearly the house was designed to view the railway line and nothing else and so this is part of its architectural interest. It has a S&DR black and white ceramic plaque on the front elevation giving the house the number G1. The S&DR instructed their rent collector to install such plaques in 1857 on each group of residential properties. The house had no access to mains

services until the 1980s. Prior to that in the first half of the 20th century the first train of the day would drop off large containers of water for the keeper's family to use.¹



Plate 2. The Crossing Keeper's Cottage at Whiley Hill front elevation facing the line (left) and rear elevation facing fields (right)

Between Coatham Lane and the A1(M) there is a stretch of 1825 high embankment line where access is possible using a circuitous approach via existing rights of way and a level crossing. An original accommodation bridge (SDR190), and a culvert carrying Dene Beck (SDR336) survive. The accommodation bridge has renewed wing walls in brick and a grassy ramp leading to it from the field on the east which should be included in any designation. The grassy ramp also has round topped wooden gateposts which are typical of those seen along the 1825 route for its entire 26 miles. Some repairs in the 20th century have been in cement which is causing a little damage to the stonework. The brick wing wall on the west side appears to have been hit by heavy machinery which has dislodged its capping. The string coursing has a little damage but it is not serious.

The culvert carried the Dene Beck below the embankment – it has a small parapet with terminals on the west side, one of which is missing its capping. The east side has no parapet and old four-hole sleeper blocks have been used to repair it in the past. There are a few large boulders on the boundary of the railway, but they appear to have no markings and may just be boulders rather than boundary stones. However, the area is fenced off and well wooded, so the possibility of boundary stones being present is high.



Plate 3. Accommodation bridge with renewed wing walls (left) and culvert adjacent carrying Dene Beck (right).

¹ From Andy Guy 050716: 'My late mother-in-law, born in Coatham in the early 1920s, remembers that the first train of the day used to drop off large containers of water for the cottage – it was not connected to the mains (or any other services) until converted to a private house in the 1980s.'

South of the A1(M) at Myers Flatt the line can be approached via rights of way and this 'swampy tract' (Tomlinson 1967 (1914), 88-9) has much of interest. The waterlogged nature of the ground proved problematic for the railway construction and so a massive embankment was built. This had a drain (SDR335) running parallel to it on the east side. Originally this drain was in the form of a continuous enclosed arched culvert of sandstone and was designed to collect run off from the wetland and keep the embankment dry. Sleeper blocks had been used in its repair. The drain survives, but most of it has recently had the top ripped off to expose the drain and the rubble has been left lying alongside the stone lined ditch. It is the same construction as a drain seen running parallel to the line now under the Eastern Transport Corridor in Darlington (SDR 330, 331, 333, 333, 364).

Myers Flatt was nearly Stephenson's undoing and gave James Potts the contractor considerable trouble. Overton had carefully avoided this boggy area, looping to the north of Standalone (now Stanley Farm) and east of the buildings at Coatham Grange. His line followed the rather drier shoulder of a small rise, running approximately alongside the ancient Patches Lane. Overton had been wise to observe the local conditions – Stephenson ignored them. Stephenson's philosophy on the construction of railway lines was generally proved correct – in the long term, it was better to form a route that was as straight and level as possible, even if it meant higher initial costs (Locke, his assistant, later formed a different view, relying on the increasingly powerful locomotives to conquer inclines on a more cheaply-built route, but running costs did prove higher, as seen on his Lickey Incline near Birmingham). Stephenson's concern about power was particularly appropriate when steam locomotives were in their infancy, and gradients and curves a very real problem. In this case however he might be thought to have been over cautious in abandoning Overton's gentle deviation, and over confident in his own ability to wrestle the bog into submission. Stephenson's technique was to overwhelm the soft ground by tipping huge quantities of hard material to form a solid structure. From the evidence he gave to Parliament in 1825 on the Bill for the Liverpool and Manchester Railway, the core of the embankment might also have been constructed from peat from the bog itself, in the expectation that, with drains each side, the embankment would stabilise and consolidate within about two years. It did not – and it still has not (Andy Guy pers comm).

It was only after hundreds of tons of materials had been tumbled down that a stable foundation was secured for the road. The effect of this heavy mass sinking in the soft substance of the Flat was to force out of position the line of fences which had been erected previous to the beginning of the work. Though shifted back, the same thing occurred again and again, till some of the country people brought up in the neighbourhood of Middridge Hill from time immemorial a favourite haunt of the fairies attributed this derangement and obstruction of the railway works to the agency of the Little People and predicted that the line would never be made across Myers Flat (Northern Echo 25th September 1875 and Tomlinson 1967 (1914), 88 9).



Plate 4. Left: a piece of intact culvert at Myers Flatt and right: the exposed stone lined ditch without its capping and rubble alongside which includes reused stone sleepers. The 1825 embankment runs along to the left.

James Potts and his gang of workmen finished their contract on this part of the line on the 11th of June, 1825; and, although the embankment appeared firm enough, it began gradually to subside, and continued to do so for many years. Mr Storey, giving evidence in 1829, declared that it was even then sinking as much as the very first year it was made. Upwards of £300 had been spent the previous year in leading materials to keep up the embankment, and from four to six men had been employed during the winter to keep the rails in order. The whole traffic of the line was sometimes stopped until this short embankment had been put right (Thomas Storey's evidence, Clarence Railway Bill, 1829, p.148.)

In the meantime, the Myers Flat dilemma became attractive to the local farmers, who were, almost to a man, against the railway; one of them, named John Potts, who farmed at Dene Head, used to come down day by day, to gloat over the discomfiture of the Quakers at Myers Flat, for it was a swampy place at which they said "t'fairies danced", and so John would say to a young fellow he knew:



“Get thee away home, all t’Darlington Quakers ‘ill be broken before that battery’s made.” “Hi,” he continued, “Get thee away home or they’ll breeack thi grandfayther te” – his grandfather having the contract for the railway. This Potts was a notable opponent of the railway, and many a day he did little else but curse and swear at t’owd Quakers whose speedy bankruptcy he foretold to everyone who would listen to him (Heavisides 1912, 40-42).

Immediately south of this is an 1825 accommodation bridge (SDR193). It has had its decking replaced in concrete with metal rails instead of the arch – the style and method used is similar to the replacements seen of about 1901 near West Auckland. It is otherwise intact, but with some unsightly cementitious repointing and a surprising amount of graffiti for a structure far from settlements and in a bog.

Plate 5. The grave of John Potts, leading opponent of the railway at Myers Flatt (photo: Andy Guy)

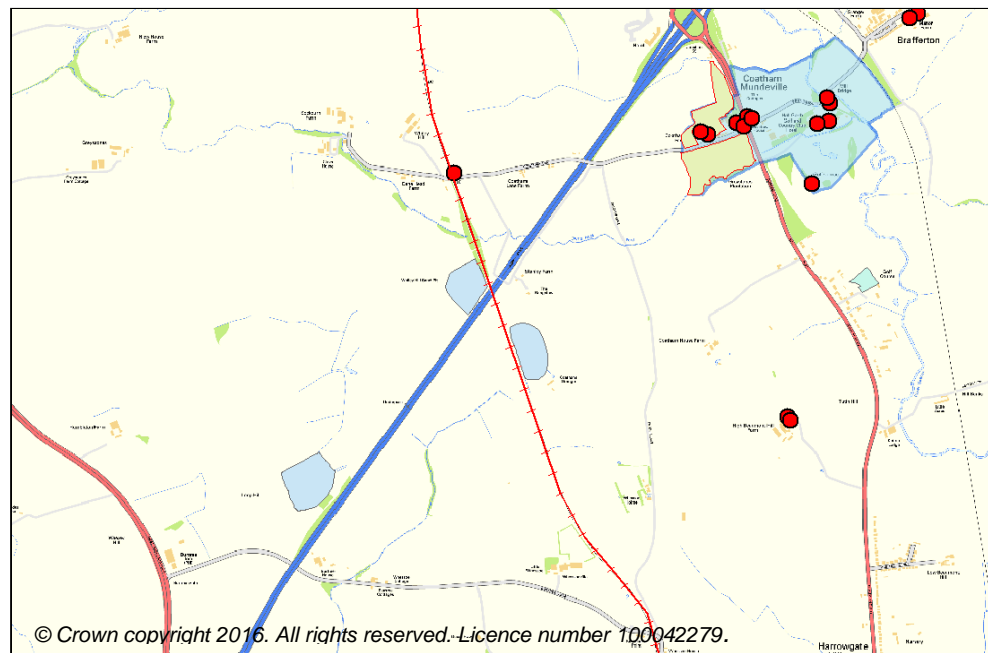


Plate 6. Accommodation bridge at Myers Flatt










No access has been possible to the live line south of this point.

1.2 Existing Designations

Figure 5.
Existing
designations

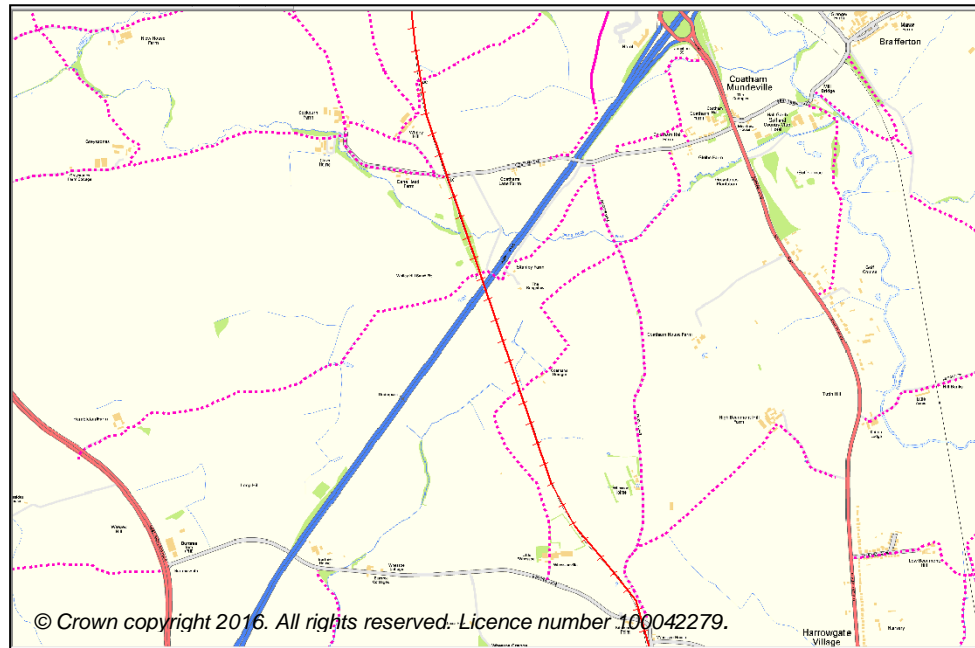


1.3 Management and protection

-  The line is managed by Network Rail. They have many factors to consider when making management decisions, but they also need to be made aware of the surviving heritage interest along the line so that this can be included in their management systems.
-  Similarly, the repairs that were carried out in the 20th century on behalf of British Rail used inappropriate modern materials. Some training in traditional approaches to repairing historic structures still in use, would benefit the assets and Network Rail staff.
-  Any designation needs to include the ramp and the wooden gateposts at the accommodation bridge south of the A1(M) near Dene Beck as well as the formation, ditches and culverts of this stretch of line.
-  The cope needs replacing on the culvert over Dene Beck.
-  Some young trees are growing out of accommodation bridge at Myers Flatt.
-  Graffiti needs removing from the accommodation bridge at Myers Flatt.
-  The demolition debris at Myers Flatt should be retained on site but the exposed stone sleepers removed for storage in a depot until they can be reused on the line or displayed.
-  New access in this area will need to be designed around the wetland and the consequent wildlife interest.
-  Dumping and fly tipping is occurring at the farms in this area. This needs to be addressed with the farmer.

1.4 Access

Figure 6 Existing public rights of way.



Most footpaths in this area run E-W so do not support access on the S&DR which runs N-S. Footpath no.11 runs parallel for 134m so could be used instead of a new path but would require a diversion to Whiley Hill Farm and back to Coatham Lane. Whiley Hill was a S&DR Crossing Keeper's Cottage and so is of interest and would be included if this diversion was used.

A new access across the A1(M) would be prohibitively expensive but there is a farm access bridge across leading from a track south of Coatham Lane. It could be used instead, subject to the necessary agreements, and would require a short detour away from the line of 31m.

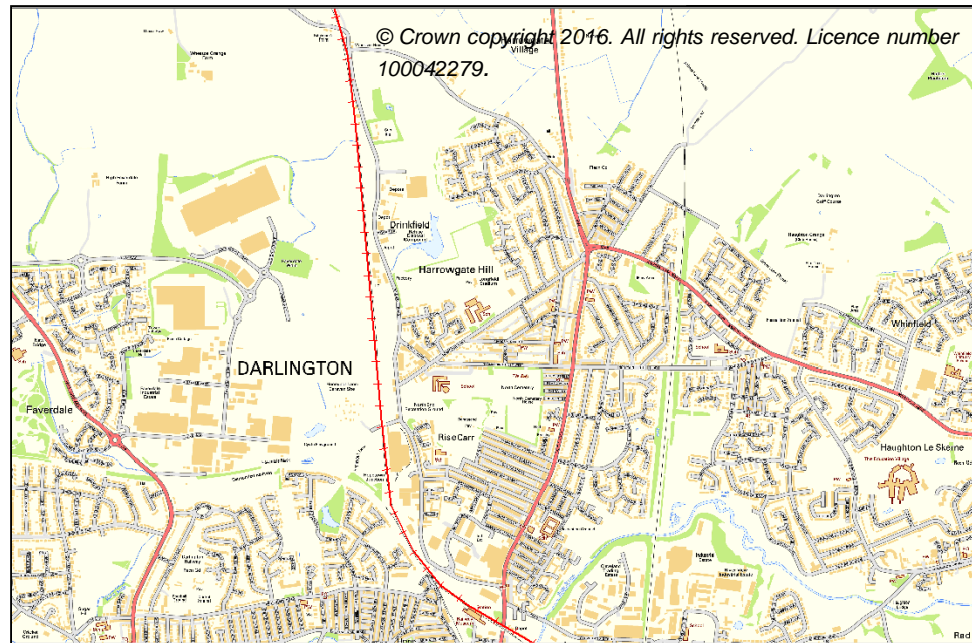


Figure 7. Suggested new access to be acquired in purple – making use of modern farm bridge over the A1(M)

2.0 THE TOP OF WHESOE ROAD TO NORTH ROAD STATION

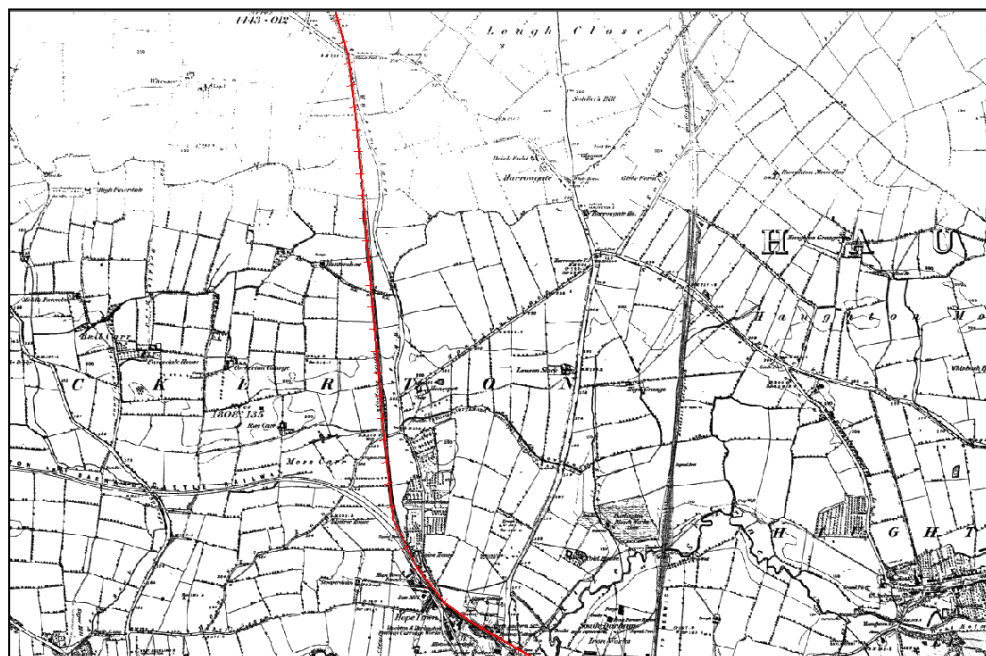
This is another stretch of live line managed by Network Rail. Whessoe Road starts in a rural environment of enclosed hedge lined arable fields. Although it runs parallel to the S&DR line there are tall hedgerows which prevent views on to the line for much of its rural length. There are however gaps with simple security fencing that allows a view on to the line which starts on the level. There are no pavements on this road and the width of the verges varies.

Figure 8. Whessoe Road to North Road.



2.1 What survives and how do we protect it?

Figure 9. The same area in 1856 as shown on the OS 6" to 1 mile mapping series.



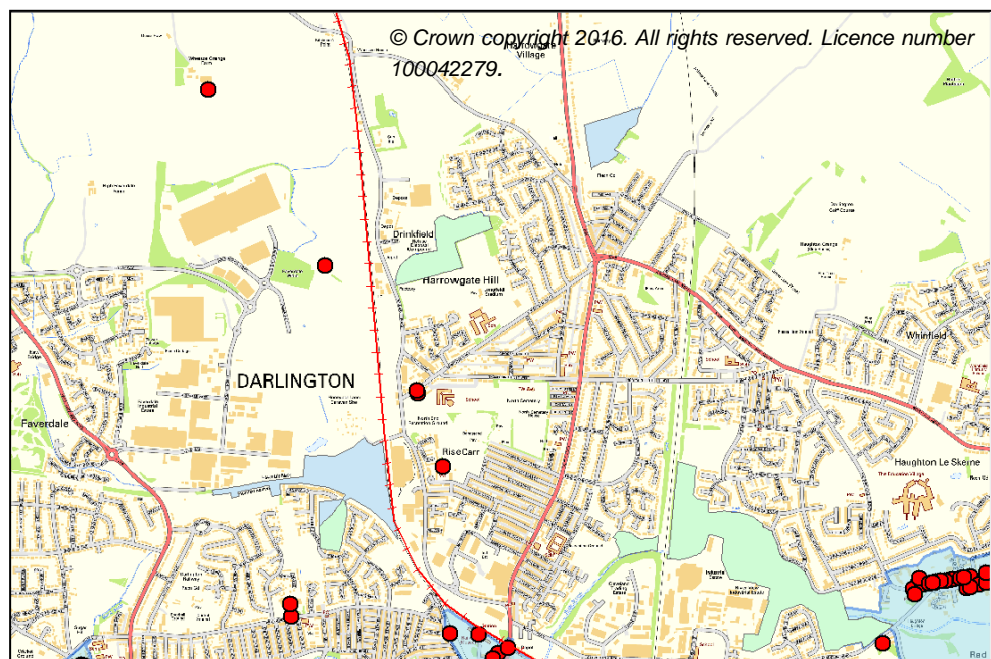
This stretch of line has no boundary walls; it may have originally been enclosed with quick set hedging. There is a water course under the line at NZ 28389 17844 and so there may be a culvert here. There is a railway bridge over Elmtree Street with access to other cycle routes going to Heighington, but off the line. The bridge has been widened in the past.

The area around the urban stretches of Whessoe Road was full of railway buildings with the NER Locomotive Works to the east, the site now used for Morrison's supermarket. Towards the town centre there is a fine four road Locomotive Shed at NZ 28652 16066 (SDR350), one of the last ones to be built by the S&DR. It was built in 1860/61 and designed by William Peachey to hold locomotives for the new line to Tebay and subsequently used as the paint shop for North Road works for a while. In 1908 it was the scene of a fatal accident when a runaway train smashed a pilot engine into the building then being used as a paintshop. Having brought down some of the walls and ceiling, it then collided with a stationary engine which in turn shunted into a locomotive being finished off by Albert Hudson, who was killed (Lloyd 2013).² The repairs to the walls are still discernible on the west side of the building.

The building is currently owned by Network Rail and leased in part to a car salvage company but because the roof is now dangerous the company have stopped using it. Vandals have repeatedly thrown objects at the west side of the roof and broken the glass there. As a result, water has been penetrating the roof and the timbers are rotting. The car salvage company is expected to leave in 2017. The shed is therefore vulnerable to further vandalism, a lack of maintenance and unless the significance of the shed is flagged up, Network Rail could consider demolishing it. It is a visible reminder of the area's railway heritage and with its large open spaces, it could be very flexible in terms of its future uses.

2.2 Existing Designations

Figure 10.
Existing
designations



2.3 Management and protection




Negotiations need to take place with Network Rail regarding the S&DR engine shed on Whessoe Road as the current occupier, a car salvage company, look likely to move out in the near future. Its ownership could be transferred to a third party (such as The

² Published in the Northern Echo 4.2.2013 available at http://www.thenorthernecho.co.uk/history/memories/10204714.An_unlucky_brake/

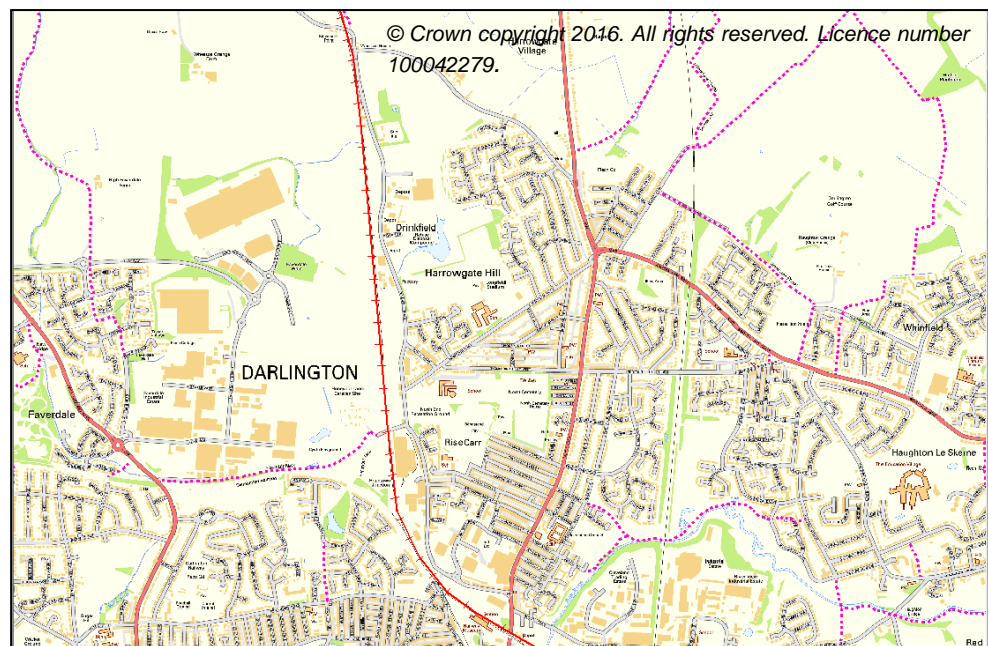
Railway Heritage Trust or the Friends of the 1825 S&DR) after capital works to repair it. It could then be managed sympathetically to its heritage interest and leased out for local businesses to provide income for its maintenance.

 The engine shed merits listing in its own right.

 Recent work at the site of a nearby round engine house has shown the extent to which railway buildings still survive below ground. Applications for planning permission to develop land formerly occupied by 19th century railway buildings should be the subject of a pre-determination evaluation so that any remains can inform the nature of the development or its landscaping.


2.4 Access.


Figure 11.
Existing public
rights of way.





Current access is very limited but there are potential opportunities for Network Rail to donate disused land east of the line, subject to sufficient safety barriers being placed along the path.


 This stretch of the line is live line with no right of way adjacent.

 Whessoe Road runs parallel to it but the views are restricted and the road has no pavements. It is too narrow to have a safe cycle path or footpath along its whole length, although there are some areas of wide verge.

 There are however a number of strips of waste ground which probably belong to Network Rail and so there may be opportunities to negotiate additional access.

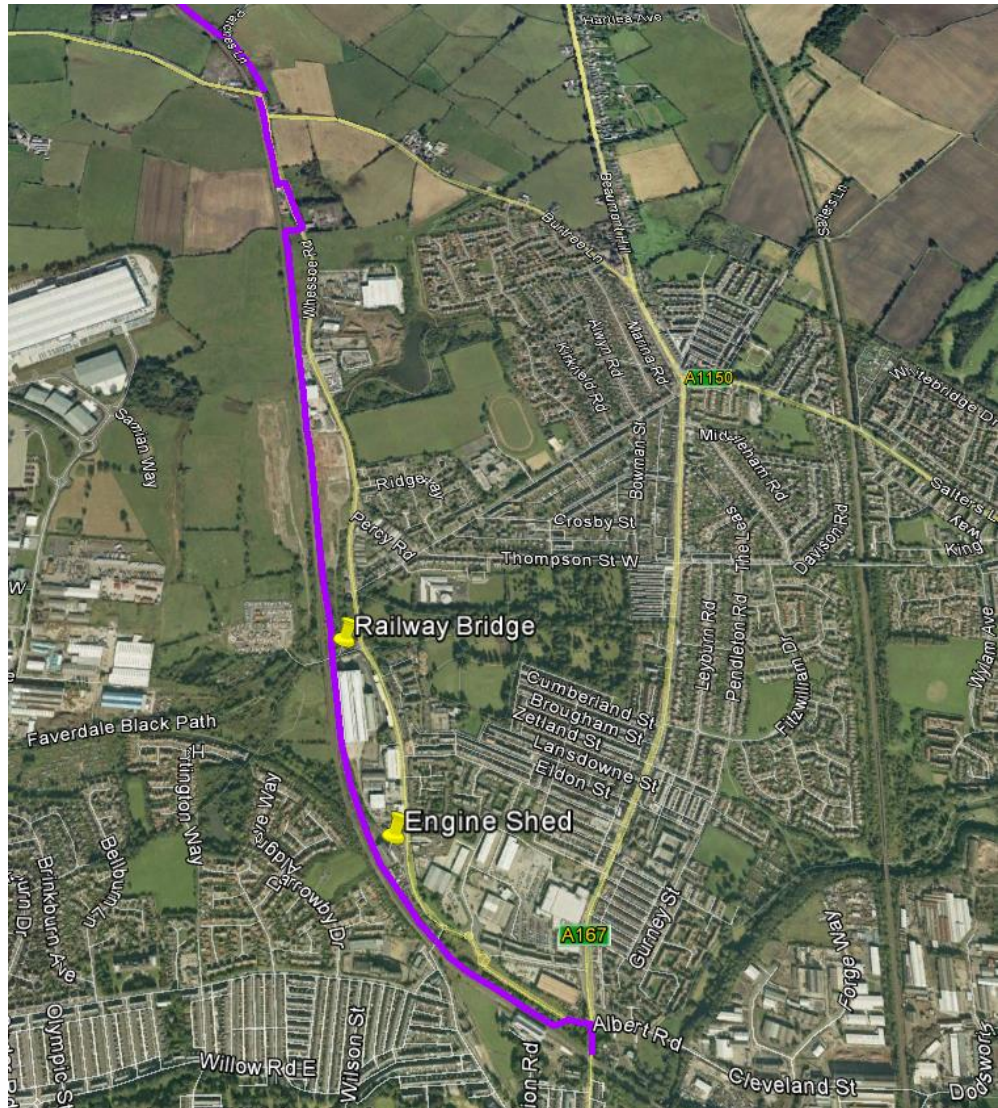
 As the area becomes more built up there are still areas of waste ground near the live line. Towards Elmtree Street there are desire lines showing that this route is already being use by local people.

 Elmtree Street has links to popular walks and a cycle path (Faverdale Black Path) to Heighington, although not via the S&DR.

 South of Elmtree Street there is a long section of disused trackbed east of the live line which could be used as a multi user path all the way to North Road Station. This

presumably belongs to Network Rail and would pass between the live line and the Engine Shed.

Figure 12. Suggested route to be negotiated, mainly from Network Rail. The route would be on waste ground between the line and Whessoe Road apart from where it has to pass over to the east side of Whessoe Road to avoid two bungalows.



Summary recommendations: County Boundary to North Road Station, Darlington		
Opportunities to find out more gaps in knowledge		
Task	Where	Priority
Statements of Significance are required at the following buildings:	Whiley Hill Crossing Keeper's Cottage	Low
Next steps in interpretation (see also main report).		
Task	Where	Priority
Next steps in management.		
Task	Where	Priority
The repairs that were carried out in the 20th century on behalf of British Rail used inappropriate modern materials on the historic accommodation bridges. Some training in traditional approaches to repairing historic structures still in use, would benefit the assets and Network Rail staff.	All live line	High
The cope needs replacing on the culvert over Dene Beck.	Dene Beck	High
Saplings and graffiti need removing from Myers Flatt accommodation bridge	Myers Flatt	Medium
The demolition debris at Myers Flatt should be retained on site but the exposed stone sleepers removed for storage in a depot until they can be reused on the line or displayed. It may be worth considering rebuilding the culvert if agreeable to the landowner	Myers Flatt	Medium
Dumping and fly tipping is occurring at the farms in this area. This needs to be addressed with the farmer.	Dene Beck	High
Negotiations need to take place with Network Rail regarding the S&DR engine shed on Whessoe Road and the identification of a third party to take it over. ³	Whessoe Road	High
Applications for planning permission to develop land formerly occupied by 19th century railway buildings should be the subject of a pre-determination evaluation so that any remains can inform the nature of the development or its landscaping.	Darlington Borough	High
Next steps in preservation.		
Task	Where	Priority
Any designation needs to include the ramp and the wooden gateposts at the accommodation bridge south of the A1(M) near Dene Beck.	Bridge south of A1(M)	High
The engine shed on Whessoe Road should be listed	Whessoe Road	High
Next steps in improving access		
Task	Where	Priority
New access at Myers Flatt will need to be designed around the wetland and the consequent wildlife interest.	Myers Flatt	Medium
Most footpaths in this area run E-W so do not support access on the S&DR which runs N-S. Footpath no.11 runs parallel for 134m so could be used instead of a new path but would then require a diversion to Whiley Hill Farm and back to Coatham Lane. Whiley Hill was a S&DR Crossing Keeper's Cottage and so is of interest and would be included if this diversion was used.	Footpath 11 and Whiley Hill	High

³ Still to be confirmed but a railway heritage group have expressed an interest in using this building

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<p>A new access across the A1(M) would be prohibitively expensive but there is a farm access bridge across leading from a track south of Coatham Lane which is already a right of way. It could be used instead and would require a short detour away from the line of 31m.</p>	<p>A1(M)</p>	<p>High</p>
<p>There is currently no access to waste land alongside the line that could be the route of a safe right of way. Network Rail could donate or lease some of this land thus reducing the need to acquire more.</p>	<p>Whessoe Road</p>	<p>High</p>