Historic England

The Stockton & Darlington Railway Carriage Works, Darlington: Historic Building Investigation and Assessment of Significance

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S&DR CARRIAGE WORKS, DARLINGTON

HISTORIC BUILDING INVESTIGATION AND ASSESSMENT OF SIGNIFICANCE

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SUMMARY

The Stockton & Darlington Railway (S&DR) Carriage Works is a Grade II-listed building located on Hopetown Lane, Darlington. This historic building report was commissioned by Historic England for the Stockton & Darlington Railway Heritage Action Zone (HAZ) to inform the development of Darlington's Railway Heritage Quarter (RHQ) Masterplan. Constructed in 1853, the Carriage Works was built for the repair, and then later for the construction, of railway passenger carriages. It initially employed a small workforce of 12, and at its peak employed 310 men, but closed in 1886 when the North Eastern Railway (NER), with which the S&DR had merged, transferred most manufacturing and repair to their works in York. Thereafter, the building was adapted for a variety of purposes including warehousing and a car maintenance works, before returning to heritage-railway use.

The Carriage Works is a rare survival of a building type designed when railway architecture was in its infancy. Its layout was typical of its contemporaries, but its simplicity of architectural form reflects the Quaker values of the architect Joseph Sparkes and the S&DR. The Carriage Works is highly significant for its group value with several nearby survivals dating from this early period of railway history.

CONTRIBUTORS
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ARCHIVE LOCATION
The archive associated with this recording has been deposited with Historic England and an OASIS record made, reference purcell1-502297.

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Figure 26. Wall nib with modern wall to the right.

INTRODUCTION

The Stockton & Darlington Railway (S&DR) was identified as one of Historic England's Heritage Action Zones (HAZs) following the call for applications in September 2017. It is one of (to date) eighteen HAZs nationwide that will be the focus of funding from Historic England and various local authorities to take forward a wide range of heritage-related projects.

Launched in May 2018 and running for five years, the S&DR HAZ is intended to help rejuvenate and restore this historic railway in the build-up to its bicentenary in 2025, and to realise its potential to become a major heritage attraction, international visitor destination and driver of long-term economic growth and regeneration in the area. Uniquely, the S&DR not only spans three local authority boundaries and a Combined Authority, but also encompasses an extensive section of operational railway. Reflecting this diversity, a partnership has recently been established as the Stockton and Darlington Railway Heritage Board, incorporating: the A1 Steam Locomotive Trust; the Bishop Line Community Rail Partnership; Darlington Borough Council (DBC); Durham County Council; Friends of Stockton and Darlington Railway; Historic England; Hitachi; Network Rail; Northern Rail; Science Museum Group (Locomotion); Stockton Borough Council; Tees Valley Combined Authority (TVCA); and London North Eastern Railway (LNER).

The S&DR HAZ is Historic England's contribution to the work of this Board and presents the first opportunity to address many of the issues facing the historic railway through a nationally recognised programme of work. It will ensure that essential early work is carried out, providing the necessary building blocks so that the bicentenary is not only a celebration of the S&DR, but also establishes its long-term recognition, conservation and management as a world-class visitor attraction. The HAZ Programme and Delivery Plan (Historic England 2018) sets out a diverse programme of work across four workstreams and nine themes. Individual projects include: new and enhanced listing; research (aerial surveys and archaeology and building investigations); tackling heritage at risk and urgent repairs to historic structures; addressing heritage crime; development of heritage skills, school resources and training; community engagement and events; and building the capacity for tourism as well as providing opportunities for health and recreation.

This report has been prepared in response to a brief prepared by Historic England (2019) to provide a fuller understanding of the building fabric, its former and current uses, lost architectural features plus an assessment of its significance. It forms part of Project 11a in the Delivery Plan. It has been carried out in accordance with a Level 4 Building Survey, as set out in Historic England's guidance 'Understanding Historic Buildings' (Historic England 2016).

The Carriage Works is statutorily listed at Grade II (National Heritage List for England (NHLE) 1121229) and sits within the Darlington Northgate Conservation Area, originally designated in 1974. The building is located at NGR NZ 2878315719 lying on the east side of Hopetown Lane, due west of North Road Station, which it faces across an open space formerly occupied by Kitching's Foundry. It stands alongside and parallel to a modern rail siding which connects to what is now the Bishop Line (the Darlington-Bishop Auckland rail line, incorporating part of the S&DR main line).

The southern element of the building is currently used by the A1 Locomotive Trust for the construction, maintenance and repair of steam locomotives. The northern portion is also occupied by an active steam locomotive charity, the North East Locomotive Preservation Group (NELPG). The central block which faces Hopetown Lane is currently used as stores and offices by A1 Locomotive Trust staff. Most areas of the building were accessible, although visibility of the building fabric was restricted by modern structures, machinery and stored objects. The building has also undergone restoration including the rendering of the exterior walls and modernisation of the central block, which has obscured visibility of some historic fabric.

Figure 1. Location of the Stockton and Darlington Railway Carriage Works (coloured red). (Base map © Google Earth 2019)

AIMS AND METHODOLOGY

Aims

The aim of this programme of recording is to provide an improved understanding of the former carriage workshops to inform the development of the Darlington Railway Heritage Quarter Masterplan. The principal aims of this record are set out in the Historic England Brief (Historic England 2019); they include:

Providing a solid and well-researched analysis and interpretation of the history and development of the building through building survey and archival research.

Establishing the survival of original design elements in the building's major phases, and the extent to which these have been obscured by later alterations.

Identifying surviving evidence for the earliest form of the building, and to chart the evolution of the structure through successive alterations.

Assessing the significance of the building in terms of its place in the design and evolution of railway buildings. For instance, was the design of the building innovatory, did it influence later structures elsewhere or was it a design dead-end? What parallels survive elsewhere?

Assessing the significance of the building in terms of its contribution to the Darlington Northgate Conservation Area and the more immediate setting of the Darlington Railway Heritage Quarter.

Producing a clearly written and accessible account that can be used to inform the future management of the building.

Providing a 'point in time' record of the building prior to any future restoration or alteration work.

Contributing to Historic England's virtual volunteering project 'Enriching the List' by enhancing the current list entry.

Methodology

Building Recording

The Historic Building Record was carried out in accordance with a Level 4 Building Survey as set out in Historic England's guidance Understanding Historic Buildings (2016). The guidance provides the minimum recording specification, to which other relevant information may be added. A Level 4 survey provides a comprehensive analytical record and will typically be accompanied by measured survey drawings, a written account and photographic record.

Documentary Research

Early documentary research was carried out prior to commencing site survey work to inform the survey and to provide a clearer understanding of the original construction date, subsequent alterations and former uses. This involved extensive research within the Durham County Record Office, the Head of Steam Darlington Railway Museum Archives, the Darlington Centre for Local Studies, the National Archives in Kew and the National Railway Museum in York. Relevant material has been photographed and is included within the report.

Written Record

A detailed written record was prepared in the Historic England Research Report Series describing the history and context of the Carriage Works, its method of construction, materials, associations with notable people, former uses and lost architectural features.

Photographic Record

An external photographic record was made of all elevations of the building including details of significant architectural features and any surviving evidence of lost features. The building was also photographed from the wider townscape to understand its setting and from key viewpoints. All photographs were taken at the highest resolution (18-megapixel capability) in Jpeg format using a Canon EOS 750D digital single lens reflex camera with a Canon EF-S 18-55mm lens. Relevant images are included throughout the text.

Archiving

This report is available for download from the Historic England website and available to consult in hard copy from local and copyright libraries. The full photographic record and electronic drawing files will be deposited in the Historic England Archive. Key information will be uploaded to the 'Enriching the List' entry for the site.

HISTORY AND ANALYSIS OF THE CARRIAGE WORKS

Introduction

The Stockton and Darlington Railway (S&DR) of 1825 included a short branch to a coal depot on High Northgate, Darlington. The triangular area formed by the angle between the main line and the branch became the focus for the S&DR's subsequent development in Darlington; it was called 'North Road' after the continuation of the thoroughfare that formed the triangle's eastern side. The North Road site expanded and developed through the first half of the 19th century but became something of a backwater following the S&DR's merger with the North Eastern Railway (NER) company in 1863 which already had facilities at York. From 1975 many of the surviving railway buildings on the site were purchased by Darlington Borough Council and converted to a museum and other uses.

The Carriage Works and other buildings that make up the North Road site have been the subject of several previous studies. The key secondary sources referred to are Fawcett 2001, Conservation Plan (Grenville *et al* 2004), Clark 2006 and the Historic Environment Audit (Archeo-Environment Ltd. 2016).

With the exception of Grenville *et al* 2004, the building has been covered lightly by all with little in-depth study beyond the wider railway infrastructure around the building. Grenville *et al* 2004 provides a useful reference point to the building before various works were undertaken, such as the external rendering and some of the later subdivisions. Some rooms have also had historic features obscured, which were still evident in 2004 (such as fireplaces covered by plasterboard), giving valuable evidence into the building's history.

The S&DR and the North Road site

When in 1825 the S&DR opened for business, it had facilities at Darlington for handling bulk goods such as coal and lime. It constructed its first non-bulk-goods station in the town in 1827; this was the 'Merchandise Station', located on the east side of North Road. The North Road site was already attracting development, including the ironmongery and foundry business of William and Alfred Kitching who relocated their premises to North Road in 1831, probably in anticipation of new business from the railway.[1]

The S&DR started to increase its own stock of buildings to service the railway in 1833 with the construction of a new Goods Depot. This was located within the North Road site and was built as a replacement for the earlier Merchandise Station, which was converted to passenger use. This was swiftly followed by the construction of offices for the company's Goods Agent in 1840, a Lime Depot on Hopetown Lane between 1840 and 1847 replacing an earlier facility, a new purpose-built passenger

station (now Head of Steam Museum) in 1842, and a Carriage Works in 1853 (the subject of this report).

In 1863 the S&DR merged with the NER, and the focus of operations shifted elsewhere. In 1857, the S&DR purchased a larger goods depot opposite North Road station and the use of the 1833 Goods Depot as a point of goods handling for the company probably began to decline. This was followed in 1886 by the closure of the Carriage Works. The North Road site became part of a larger operation controlled by York.

In 1923 the NER became a major component of the newly formed London and North Eastern Railway (LNER) with the Darlington area run from York. By the 1970s the triangle site had entered terminal decline and a local industrialist started a campaign to save the passenger station, which was bought by Darlington Borough Council and opened as a museum in 1975. The Goods Depot and Carriage Works were purchased by the Council in the 1980s. The latter was let to the A1 Locomotive Trust in 1993 and the North East Locomotive Preservation Group (NELPG) in 2002. Both charities still occupy separate wings of the building.

Figure 2. West elevation facing Hopetown Lane.

Figure 3. East elevation.

The present form of the Carriage Works

The former Carriage Works is located within a largely residential area of north Darlington, lying north-west to south-east on the east side of Hopetown Lane. For clarity, this report will refer to the north-east elevation as the 'east elevation' and the south-west elevation will be referred to as the 'west elevation'. The north-west and south-east gable ends likewise will be termed 'north' and 'south' respectively. Additionally, room numbers have been adopted from Grenville *et al* 2004, and a full set of plans and elevations can be found within the appendices. The modern blockwork enclosures to both workshops have been included on the plans for the sake of completeness.

The building comprises two long, single-storey, rectangular workshops lit by large multipaned windows set in low-arched recesses which flank a central multi-storey cross wing. It is constructed in rendered coursed rubble and brick with stone dressings. The hipped roofs are covered in Welsh slate and there are three chimney stacks to the central block. The building is not symmetrical – the north range has eight bays, whilst the southern range has nine bays. Additionally, the central block projects more to the west. This element is of three storeys and three bays facing onto Hopetown Lane, but two storeys and two bays on the opposite elevation which faces towards the branch line and North Road Station. The west elevation is plainly finished and has an entrance door to the right within the third bay (figure 2). The series of sash windows give this elevation a domestic appearance. The east elevation is more elaborately executed with stone quoins, a stone sill band to the upper windows, and stone architraves with a frieze at eaves level. The ground floor is articulated in ashlar, with two window openings (both blocked and one converted to a doorway), and a central segmental arched opening (also blocked) (figure 3).

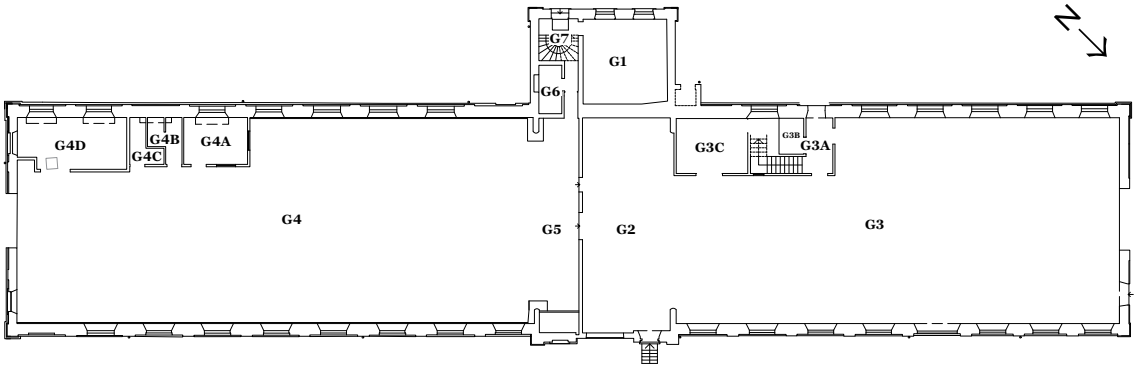
The north and south gable end elevations are both three bays wide, and have large central vehicle entrances, flanked by low-arched recesses. The south is set with a series of window openings (several of which are blocked) within the first and third bays, whilst the north elevation has an entrance door within the first bay to the right.

Figure 4. Interior of the north workshop, looking north.

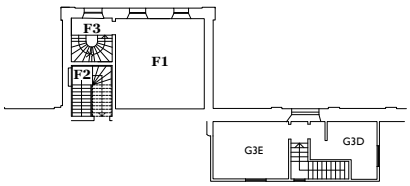
Figure 5. The south workshop, looking south.

Internally, the two workshops are large open spaces, open to the roof rafters and simply plastered and finished in masonry paint. Both have concrete floors from later phases of adaptation. The units are divided by a modern stud wall, with a lower floor level in the south workshop. Both units possess modern blockwork structures which incorporate facilities and storerooms. The central block within the workshops is of two storeys, with a second floor that was vacant at the time of survey. A disused staircase formerly gave access from the workshop area directly to the first floor. The three-storey element of this block which faces Hopetown Lane has one room per floor accessed via a winding staircase.

Ground Floor



First Floor



Second Floor

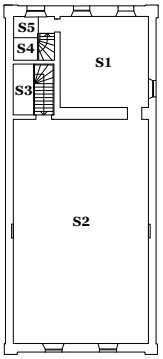


Figure 6. Plan of the Carriage Works (reproduced at A3 within the appendices)

The construction of the Carriage Works

The S&DR had originally little interest in the operation of a passenger rail service when it opened in 1825, as it was instead focussed on 'the general purpose of trade'.[2] During the opening ceremony, passengers were famously transported in chaldrons - open wagons normally used for the hauling of coal. These were fitted with timber seats for the luckier passengers, whilst others were provided with sacks of flour to sit on. Only the S&DR Committee members rode in an enclosed, purpose-built carriage named 'Experiment'.

Believing passenger transportation to be a limited field, the practice was initially given over by the S&DR to private contractors in the first instance operating horse-drawn vehicles upon their rail tracks.[3] By September 1833, with evidence of the increasing demand and profitability of rail passenger services, the S&DR resolved to take the service back inhouse and began operating locomotive-hauled passenger trains from April the following year.[4]

It is perhaps unsurprising that the early railway carriage took inspiration from the horse-drawn stagecoaches that were constructed by the road coach builders of the time.[5] The standard first-class railway carriage that emerged in the 1830s and 1840s comprised three coach bodies attached together upon a four-wheel underframe which was to become the forerunner of the traditional British side-door compartment carriage.[6] The classes of travel were also adopted from the stage-coach era: first-class passengers rode in an enclosed carriage with padded seating, carpets and oil-lighting; second-class passengers were usually within an enclosed carriage with bench seating, and third-class passengers rode in uncovered wagons. The rather primitive treatment of passengers continued for some time; for example, when the Paddington to Bristol line opened in 1841, passengers were 'conveyed in uncovered trucks'.[7]

During the early years of passenger travel, the S&DR purchased their coaches from external sources.[8] It seems likely, therefore, that workshops for their repair and maintenance would have been required. George Stephenson is believed to have established a workshop in 1837 in the North Road area just four years after the S&DR committee had taken up running its own passenger service. Newspaper sources from 1886 state that this carriage works was originally located to the north-east of the North Road railway bridge.[9] A building is shown in this location on one of Thomas Dixon's survey drawings from 1839. The Thomas Dixon survey of the S&DR between 1838 and 1840 was drawn up as a series of plans, each covering a section of line and depicting railway features, boundaries and buildings. The building in question is depicted as a rectangular structure entered by six rail spurs along its short axis (figure 7). The exact nature of this building is unknown, and no other sources have yet been found to verify the source's claim. The site of Stephenson's carriage works now lies beneath a retail park.

Figure 7. The Dixon plan of 1839 showing the North Road site. The station has yet to be built, but the Goods Depot lies to the west of North Road, and Kitching's Foundry can just be seen further to the west. A rectangular building claimed to have been an early railway works lies to the left of No.14 on the north-west side of North Road. The future site of the Carriage Works lies to the south of the foundry. Source: Archaeo-Environment Ltd. Reproduced by kind permission of The National Archives, ref. RAIL 1037/456.

In 1844 the Regulations of Railways Act, also known as the 'Penny-a-Mile Act', was passed to ensure rail travel was affordable to the masses and to improve carriage design. It directed railway companies to provide at least one third-class carriage and to charge no more than one [old] penny (1d) per mile travelled. The law also directed that the 'lower orders' have the basics of seating and protection from the weather. There was, however, a reluctance by railway companies to provide any more than was legally necessary and it was another 25 years before conditions were to significantly improve for the majority of passengers.[10]

Perhaps in response to passenger numbers or the new regulations, the S&DR advertised for interest from 'Coach Builders' for the supply of 'Four New Composite Railway Coaches, and Two Second Class Coaches' in March 1845 (a composite coach was one that combined several classes of travellers in one carriage). Applications to view the specification were to be made to 'George Stephenson, the Superintendent at the Railway Station, Darlington'.[11]

The earliest carriage built for the S&DR to survive from this period was built in 1846 (figure 8). Believed to be the oldest in the world it is preserved in the railway museum 'Locomotion' in Shildon. Built by Messrs Horner and Wilkinson at their works in Commercial Street in Darlington it cost the S&DR £230,[12] and is displayed in the distinctive company livery of dark-red or 'crimson lake'.[13] It is a composite coach with a first-class compartment flanked by two second class compartments. Although a rectangular timber box mounted on a continuous iron under-frame, the compartments are defined by curved gilded mouldings, giving the impression of the familiar stagecoach form; the first-class compartment, however, is both larger, better lit and more luxuriously finished. Metal railings allowed luggage to be carried on the roof, and a seat was provided for a guard who would descend when the train was stationary to apply the brakes.[14]

Figure 8. S&DR Passenger Carriage No.31 constructed in 1846 (Draco2008, Wikimedia Commons: CC-by-2.0). https://commons.wikimedia.org/wiki/File:Stockton_and_Darlington_Railway_carriage_(14035032105).jpg

Phase 1 – The S&DR Carriage Works, 1853

Possibly due to an increase in rolling stock operated by the S&DR, and a need for larger works, the company made the decision to build new premises. On 21 April 1853, the S&DR secretary, Thomas McNay, invited tenders from builders for 'new workshops' with the plans and specifications available to view 'at the office of Mr Sparkes'.[15] Contracts stipulated that the work would be supervised by McNay and under the care of the architect Joseph Sparkes.[16] The site chosen was on the south-western side of the former Coal Depot branch line which had opened in 1825. It was presumably intended to replace Stephenson's earlier works which cartographic evidence suggests was disused by 1854 (it is shown disconnected from the rail network) and had been demolished by 1896.[17]

The Carriage Works was one of the last major structures to be built at the North Road site.[18] The new building was constructed alongside an established complex of railway buildings and structures, including the Kitching Foundry (established by Messrs Kitching) which specialised in the building of locomotives, and which operated at North Road from 1830 until it was sold to the S&DR in 1860.[19]

The architect Joseph Sparkes (1817-1855) was born in Exeter and moved to Darlington in 1847. Little is known about him except that he was a Quaker and was appointed to the position of architect to the S&DR in March of 1853, five years after the architect John Middleton had been released.[20] He has been credited with the design of the Darlington Mechanics Institute (Grade II, NHLE 1322961) completed in 1854. Under the S&DR he designed the modest extensions to the North Road Station and may have been involved in the design of the new locomotive roundhouse at the company's Shildon Works, although the ultimate responsibility belonged to William Boucher, the Locomotive Superintendent.[21] The railway historian Bill Fawcett also credits him with the design of the first group of railway worker's housing built by the S&DR on Whessoe Street, begun in Autumn 1853.[22]

A drawing of the proposed Carriage Works dated 1853 (figure 9) survives in the Richardson and Ross collection of architectural drawings in the Darlington Centre for Local Studies.[23] Although unsigned, it seems likely to have been by Sparkes. William Richardson and John Ross were both apprenticed to Sparkes and took over his practice after his death.[24]

It is unclear if the proposed drawing of the 'Design for Railway Workshops, 1853' shows the building as planned or as completed, whether it represents a design phase or the finished article. However, it bears many similarities in plan form and appearance to the present Carriage Works and provides useful information on the contemporary layout of the principal floor of the Carriage Works and of its east elevation. The drawing does not show the elevation facing Hopetown Lane, the shorter end elevations or plans for the upper floors of the building; nor is it accompanied by any supporting documentation or key. It seems likely that the colouring of the walls indicates the intended construction materials; the outer walls are coloured grey (coursed rubble), the internal walls are shown red (brick), and the corners and entrance bay are lined in orange (dressed stonework).

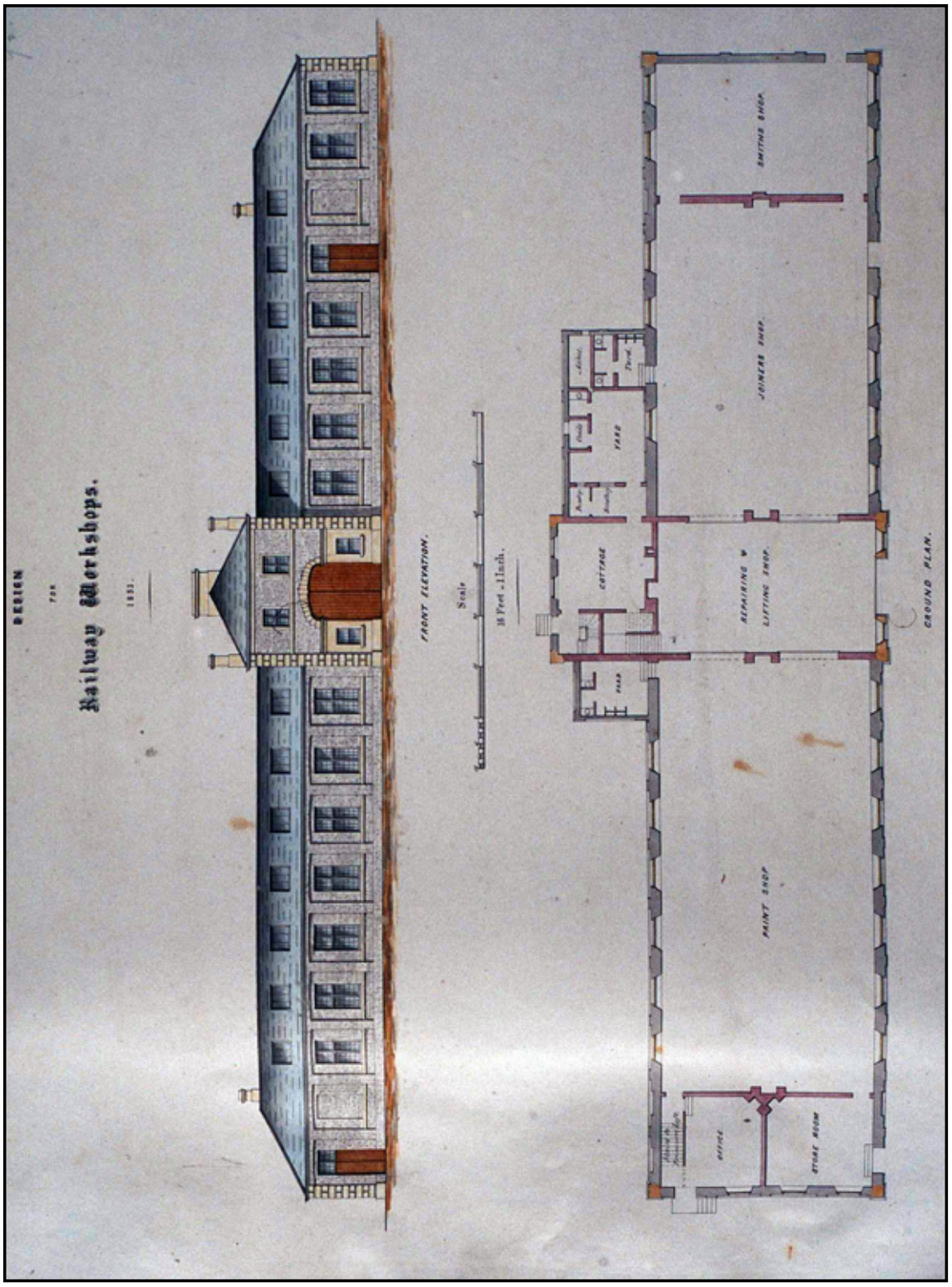


Figure 9. 'Design for Railway Workshops, 1853' taken from page 9a of the Richard & Ross design book. Reproduced by kind permission of the Centre for Local Studies, Darlington Library.

According to Fawcett, Sparkes' original design was more elaborately ornamented.[25] Perhaps for the sake of economy, the executed building was stripped of its supposed embellishments. The drawing of the east elevation shows a two-storey central block under a pyramidal slate roof, housing a large segmental archway, a window either side and two windows to the first floor. Corners and projections are expressed with ashlar quoins, as are the keystones over the central archway. Ashlar is also used for string courses and window surrounds on the central block. The asymmetrical lower wings to either side are of one storey, with eight bays to the north and nine bays to the south. Each wing has one bay that features a doorway and another a blind window, though differently placed, and glazed lights in the slate roof. The building is heated by chimneys towards the end of each of the wings, in the centre of the higher central block and in the spine walls between the central block and the wings. In the wings, the multi-paned windows are framed by piers and shallow segmental arches of rubble masonry.

The result was a building that was not altogether symmetrical. Evidence from the 1853 drawing indicates that the addition of a bay in the southern range was for the provision of an ‘Office’ and a ‘Store Room’ which occupied the southernmost two bays. Both are shown to have contained corner fireplaces with their own external entrances and are shown to be lit by gable-end windows. Adjacent to the office is a staircase to a 'Painter's Loft'. The rest of the southern range was designed as the ‘Paint Shop’, heated at both ends. The northern range comprised the ‘Joiners Shop’, separated by a wall from the ‘Smiths Shop’ which occupied two bays at the northern end. Both the joiners’ workshop and the smiths’ workshop had their own external entrances in the east and north walls. The north and south ranges of workshops had access to latrines within external yards set against both west elevations.

Between the workshop ranges is a central three-bay block, which is annotated as the ‘Repairing & Lifting Shop’. The main access for the carriages is presumed through a large opening in the east elevation; from here they would have passed into the workshops (shown on the 1853 plan with doors). Although not apparent on the plan, but shown on the drawing’s elevation, a further floor appears to lie above the ‘Repairing & Lifting Shop’ lit by two windows in the east elevation.

Behind the ‘Repairing & Lifting Shop’ is annotated the ‘Cottage’. An entrance is shown positioned along the west elevation adjacent to a generous winding staircase around an open well, which provided access to the upper floors. The ground floor contained what was probably the living-kitchen, which was connected to a scullery and pantry attached to the north wall, and beyond lay a yard containing coal and ashes stores and latrines.

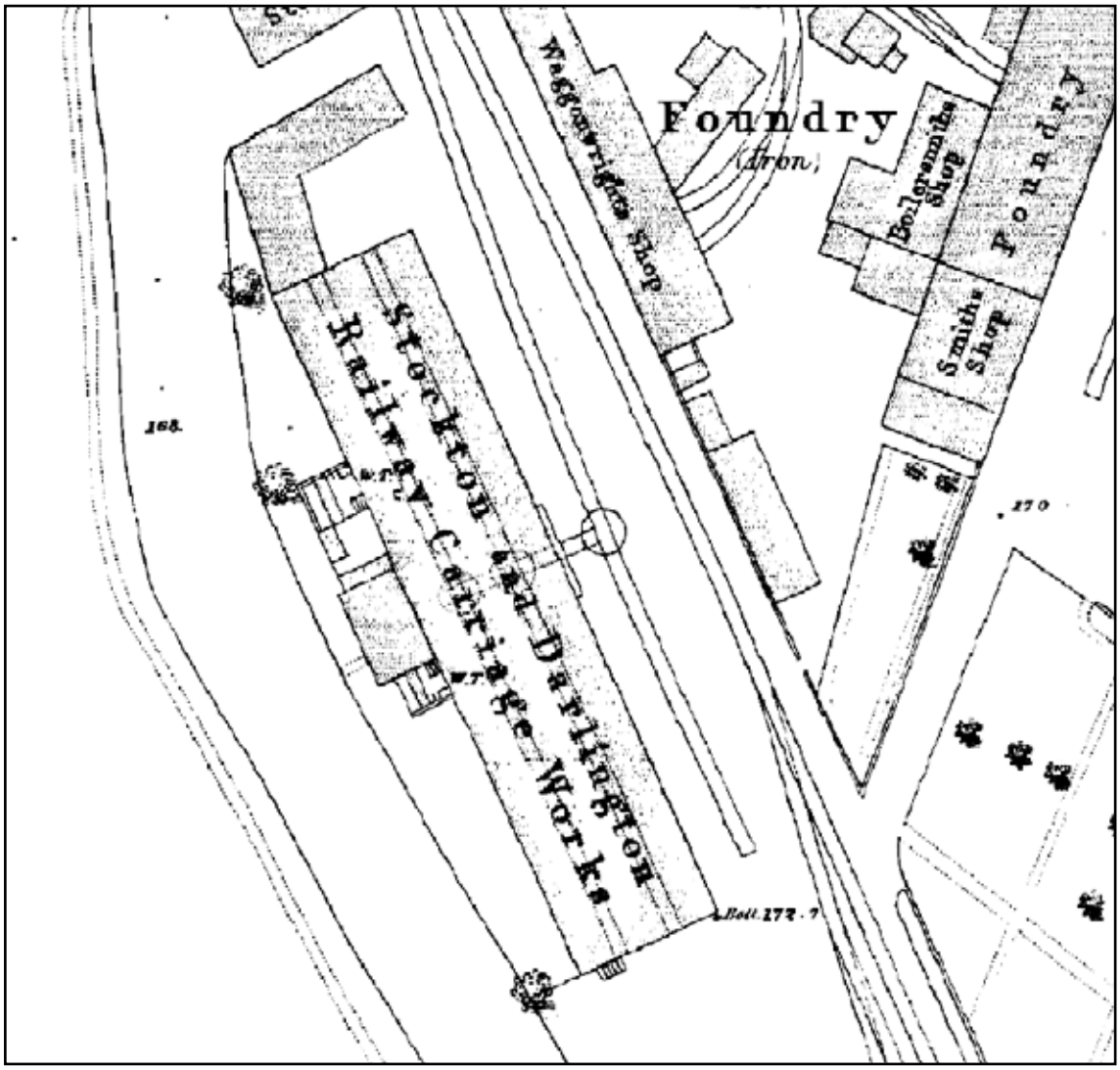


Figure 10. OS Town Plan 1856: Darlington 1:1056 (surveyed 1854). Reproduced by kind permission of the National Library of Scotland.

The Ordnance Survey 1:1056 scale Town Plan (see figure 10) surveyed in 1854 and published in 1856, shortly after the Carriage Works had been completed, provides further detail of the building and aids in clarifying the 1853 plan. The building is annotated as the 'Stockton and Darlington Railway Carriage Works'. A single rail spur runs external to the east side of the building with a turntable indicated outside the central block. The turntable gives access to a short stretch of track at right angles to the spur, leading into the building presumably through the arched entrance shown on the 1853 elevational drawing and into the 'Repairing & Lifting Shop'. Although no subdivisions are shown, two more turntables give access to a pair of tracks that run the length of the interior of the building, supporting Sparkes' plan of paired doors accessing the flanking workshops. The tracks run the length of the building, which does not accord with the 1853 plan which shows a subdivision of the interior. The Ordnance Survey also does not depict the office and store at the southern end of the building, but a set of steps are shown against the south elevation, confirming the existence of an entrance in a similar position to the one shown on the 1853 plan.

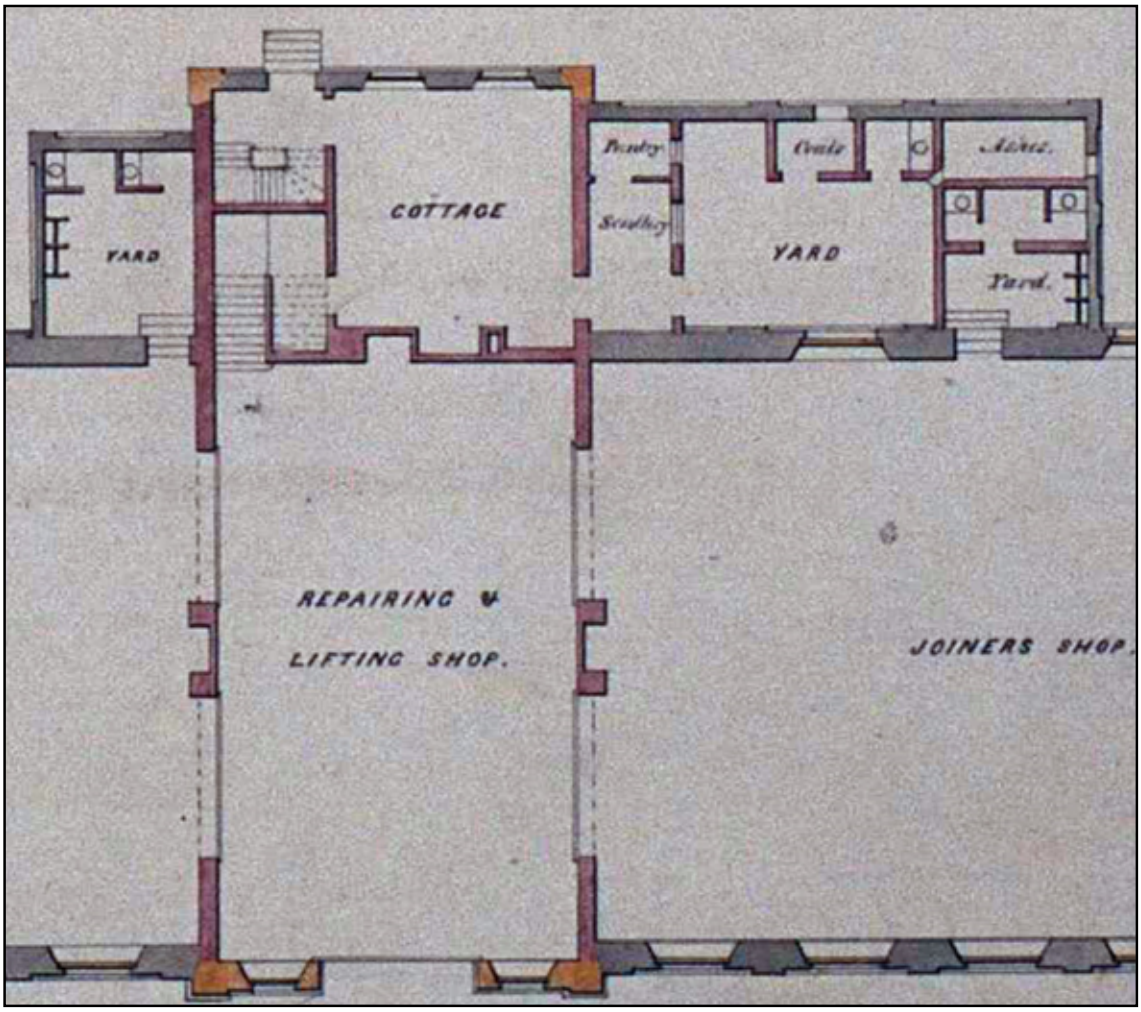


Figure 11. Detail of 1853 plan showing the Cottage and yards.

The 1854 Ordnance Survey shows the 'Cottage' as subdivided from the Carriage Works, facing onto Hopetown Lane. A path leads to the right whilst outbuildings and yards are clearly depicted flanking the accommodation which accurately match those shown on the 1853 plan (figure 11). It also confirms that both the north and south workshops had separate access to yards (shown with latrines on the 1853 map via steps.

The Ordnance Survey also depicts additional detail; attached to the north elevation is an 'L'-shaped building. The function of this extension is unclear as it is not labelled, and it was removed by 1896 as evidenced on the second edition Ordnance Survey, published 1898 - figure 47). It may be conjectured that this was a timber store (as carriage construction would have required large quantities of this material) or it may have been a stable for horses required for the moving of materials or carriages.

An analysis of the built fabric was carried out to establish the phasing of the S&DR Carriage Works. As recent restoration works have concealed formerly extant evidence, images taken prior to these works have also been used to aid interpretation

and supplement on-site observations. The evidence suggests that the existing envelope of the present building incorporating the 'Cottage' facing Hopeton Lane and its original staircases largely survive from the building's construction in 1853, although with later alterations and additions. Of the original building, the east elevation is immediately recognisable from Sparkes' 1853 drawing. Historically, the cartographic evidence suggests it faced a busy railway yard and iron foundry, although the status of its materials and its design, when compared to the west elevation, suggests that this was to be considered as the more important of the two.

The central block of two storeys retains a ground floor of ashlar and comprises a central segmental-arched entrance with stepped voussoirs and a dropped keystone (figure 12). The archway is now bricked up and painted; a central opening within the blocking – presumably once a window - has been filled in more recently with breeze block (visible internally - see figure 13). The archway springs from a finely moulded stone impost band. It is flanked by two former window openings; on the left the opening is legible but blocked – it retains its stone cill - and, on the right, the opening has been converted into a modern doorway accessed by timber steps. Sparkes' drawing of this elevation indicates that the central archway may have contained a pair of timber doors, flanked by windows with multiple lights. Evidence of doors could not be found but the archway is still clearly visible internally.

The first-floor windows are modern two-over-two sash windows with moulded stone architraves which rest upon a plain cill band. From the 1853 drawing, it appears the architect may have originally intended them to contain mullions and transoms with multiple panes. No evidence could be found for these, but in the early 2000s Grenville *et al* 2004 recorded the windows as boarded up but probably historically of twelve panes.[26] The first-floor elevation is rendered in cement but images from 2004 show this to be rendered only below the sill band (figure 14).

Figure 12. Central block, east elevation today.

Figure 13. Archway, now blocked, (looking east) as seen in G2.

Figure 14. Central block, east elevation in 2004 (Grenville *et al* 2004, Fig.141, 230). Reproduced by kind permission of Department of Archaeology, University of York.

Figure 15. East Elevation

The flanking elevations of the workshop are also recognisable from the 1853 drawing (figure 15). The present arrangement of nine bays to the south and eight bays to the north range corresponds to Sparkes' drawing. Similar to the 1853 drawing, each bay consists of a pier supporting a shallow segmental arch, within which is generally set an opening. Eight of the nine arched recesses to the southern range contain modern multi-paned casement windows with a stone cill. The most southerly bay is blind. Internally, the wall is concealed behind shelving, but in an image from the 1990s an opening in this position is shown to have been blocked in cement breeze (figure 56). This concurs with Sparkes' plan and elevation showing an entrance door within this bay. It is unclear from the fabric evidence if the adjacent bay was always fenestrated as it is today, or originally intended to be blind to take the internal cross wall as shown in the 1853 drawing. Again, no evidence of the cross wall could be traced internally, partly due to the location of modern structures and also because of the layers of plaster and paint.

A similar external arrangement is found in the eight-bay north range. The fourth bay from the northern end is slightly wider, however, with a modern inserted cill and interrupted plinth below. Internally the window is concealed and could not be inspected, but the evidence concurs with the 1853 elevation and plan suggesting this bay originally contained a door to access the workshop (figure 16).

Figure 16. East elevation of the north workshop. Former doorway with modern cill and interrupted plinth below.

Elements of the north and south elevations also appear to be from the earliest phase. The south elevation is currently three bays wide with windows set within recessed arches in bays one and three (figure 17). The dressed stone quoins or piers are from the first phase of construction and at some stage appear to have received an application of white paint. The full-height central timber doors are presumed to be the result of several later phases of alteration as they awkwardly cut the curving heads of two arched recesses which can be clearly seen either side of the modern lintel. The widths of the arched recesses and of their piers support the cartographic evidence that this was formerly a four-bay elevation. However, as with the external evidence which has been obscured by cement render, internally the evidence of lost windows could not be traced due to the roughly plastered rubble stone walls and painted finish (figure 17).

On the left of the central doorway is a boarded window with stone cill (behind which a modern timber window frame exists) and above is a smaller blind window, without cill, suggesting it was always intended to be blind. To the right of the central doorway is a timber window with nine panes and a stone cill and above is a smaller window of six panes with a stone cill. The window frames are modern but the cills appear to be historic. The Ordnance Survey of 1854 indicates a doorway was set into the first bay from the left, now set with a boarded-up window. Internally, this section of wall has a modern lining and could not be inspected to confirm the evidence of a former doorway.

The north elevation is of three arched-recessed bays (figure 18). The central access doorway is the result of a later phase of alteration, but it seems probable that the doorway to its left is from the first phase of construction. A doorway is shown in this location on the 1853 plan, and today has a timber lintel internally and is set with a modern door. An inspection of the internal wall found no other evidence of disturbances to the wall's fabric, and the tall central doorway appears to have been the only major historic intervention to this elevation (figure 19 and figure 20).

Figure 17. South external elevation.

Figure 18. Internal south elevation.

Figure 19. North elevation.

Figure 20. North wall internal elevation.

The west elevation faces onto Hopetown Lane and was not depicted on the 1853 drawing. On Sparkes' plan, however, the central block is annotated as the 'Cottage' and presumed to have been living accommodation perhaps for a night watchman.[27] The central block is of three bays set over three storeys; three storeys are possible within this elevation due to the local topography and lower ceiling heights compared to those of the flanking workshops. The modern rendered elevation is plainly finished, with the stone corner piers as the sole embellishment. The modern single-panelled entrance door is offset to the right, as shown on the 1853 and 1854 plans, and may have historically featured an overlight.

Adjacent are a pair of two-over-two modern sashes to the ground floor, three two-over-two modern sashes to the first floor, and three three-over-three to the second floor. All windows have painted stone cills which appear to be original. A further window to the right return elevation (south) is a modern two-over-two sash which lights a staircase, whilst another modern multi-paned sash window on the north-return elevation lights a second-floor room. All timber windows are modern replacements, but all openings appear to be original to the 1853 building. In 2004, Grenville *et al* noted during a survey that the first-floor windows had formerly been fitted with four-over-four sashes, and the second floor six-over-six, which likely corresponds to their original arrangement. [28]

Figure 21. Central block, west elevation seen from Hopetown Lane.

Figure 22. The Hopetown elevation in 2004 . Note to the left are the scars of various outbuildings visible in the rendered walls. (Grenville et al 2004, fig.137, 228). Reproduced by kind permission of Department of Archaeology, University of York.

That this part of the building was originally residential is supported by the census records of the later 19th century. The 1861 census taken just eight years after the building's construction records James Dickson, 39, a 'Railway Carriage Superintendent' living in Hopetown with his wife Sarah and their five children. Although the census does not mention the building name or number, the order of buildings visited by the census officer from Northgate into Hopetown strongly suggests James Dickson was living at the Carriage Works with his family. Later census returns also support its residential use; whilst the 1871 census for Darlington is incomplete, the 1881 census records that Edward Woof, 68, a Railway Engine Inspector, was living at '2 Otley Terrace (Railway Coach Shop)' with his wife, Elizabeth.[29]

The central block today is flanked by the two workshop ranges. The arrangement of arched-recessed bays set with windows with stone sills is roughly similar in both the north and south ranges and their eastern elevations, although the arrangement of openings differs slightly; a number contain blind recesses and a doorway is set in the sixth bay from the left (now containing a modern entrance door). This doorway appears to be in its original location, as it corresponds with the 1853 and 1854 OS plan. Both indicate that yards with outbuildings flanked the central block. Although there is little indication of their existence today, photographs taken before the elevations were rendered in 2015-2016 concur with the evidence and show the outline of various phases of structures, with pitched and lean-to roof lines traced in the render on the north and west elevations (figure 22).

On the south side of the 'Cottage' the evidence of an earlier service yard is limited to a blocked opening. A photograph taken before the elevation was rendered in 2015-2016 also shows the position of the doorway which had a timber lintel and had been infilled with rubble stone in a later phase of alteration (figure 23). Today, the plinth to the first bay is stepped (figure 24). Internally, however, the wall has been roughly plastered and painted, and evidence for the former doorway is no longer visible.

Figure 23. The south elevation of the 'Cottage' with blocked doorway to the right. Reproduced by kind permission of Head of Steam Railway Museum, Darlington.

Figure 24. Stepped plinth, west elevation of the southern workshop.

The 1853 plan also suggests that bay three from the north end, and the final two bays to the south, where cross walls terminated against the external envelope, were originally blind. The evidence for the cross walls within the north and south workshops is, however, absent. There are no wall-nibs or evidence of disturbance to the wall fabric within these internal bays and it is therefore possible that these subdivisions were omitted when the building was constructed as suggested by the 1854 OS map.

Possible evidence of internal walls which divided the 'Repairing and Lifting Shop' from the workshop ranges, however, do exist. Four projecting brick walls-nibs are located within G2 and G5, now acting as bearings to the iron beams which span the width of the building and support the upper floor and walls (figure 26). The brick faces of the nibs are painted, and the inner faces rendered, presumably to conceal the rough face of the cut brick surface. The 1853 plan shows the brick walls set with fireplaces facing into the workshops. The large size of the chimney stacks above (which today serve two small fireplaces on either side (now blocked) on the second floor) would also support the evidence that this space was formerly subdivided – the rebuilt stacks rest upon the later iron beams, but their width suggests they were sufficient to serve two fireplaces, one within the ground floor workshops and one above (figure 27).

Figure 25. Interior of the north workshop.

The roof structure of the Works largely belongs to phase 1, with later repairs. In the north workshop (G3 - figure 25), the roof comprises seven bays, with the eighth (end) bay supporting the hips. The six queen-post trusses with raking struts, and princess posts also with raking struts have iron strapping and were historically whitewashed.

They support purlins which in turn carry the common rafters. Grenville *et al* 2004 also notes the similarities to the roof structure within the North Road Station train shed, which was extended by Sparkes the same year as the construction of the Carriage Works (figure 28).[30] The roof coverings have been replaced in a later phase of alteration and are finished in slate over sarking felt.

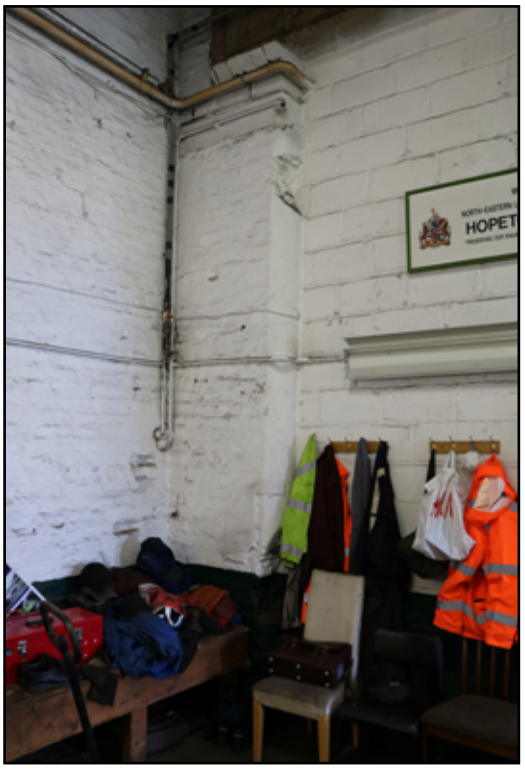


Figure 26. Wall nib with modern wall to the right.

Figure 27. Chimney stack above G2 rebuilt but the original is likely to have served a fireplace to the ground floor workshop and one in S2.

Figure 28. North Road Station roof structure.

In the opposed workshop (G4), the roof comprises nine bays of approximately equal width, except for the larger south end bay supporting the hips and the neighbouring bay which is narrower than the rest. There are six queen-post trusses, similar to those found in G3, but painted black, flaking to reveal a whitewashed finish below. The south and west inner slopes have been faced with a modern lining which obscures the roof structure. However, it is apparent, that as part of the first phase, and shown on the 1853 elevational drawing and on historic photos (see figures 46 and 49), that roof lights were originally inserted above the workshops. These have been removed and slated over in a later phase of alteration; their former location is indicated by new timber rafters now inserted in their place.

Above the 'Repairing and Lifting Shop' in the central block is a room which retains fabric from an early phase of the building's history. Room S2 was unrestored at the time of survey and has lime-washed brick walls with a suspended timber floor, though now largely covered by modern chipboard. The underside of the floor structure shows a former hatch visible from below in room G3 with the floor strengthened by trussed timber girders (figure 28). Curiously, Grenville *et al* 2004 notes that the application of trussed girders was already considered as structurally ineffective by the mid-19th century.[31] Their use appears, therefore, to have been an archaic method, perhaps driven by economy.

Figure 29. Hatch seen from G2.

There is no evidence that room S2 had been fully ceiled; instead, the lime-washed exposed roof comprises king post trusses and hips with modern repairs (figure 30). There is evidence of mortices on the underside of one of the joists suggesting some form of partition may have divided this space, although to which phase it belongs is unclear. There is also a narrow deck formed by boarding spanning a single bay of trusses, possibly used as additional storage space. A 20th-century light fitting is fitted to the underside of the truss, but historic images suggest the space was also lit by rooflights and the two window openings in the east wall (now with modern windows).

The room originally contained a pair of fireplaces in the north and south walls which have been bricked up historically (figure 32). Their brick arched openings (with secondary arches) are still visible in the painted brickwork with the stacks seen above more recently rebuilt in engineering brick. The fireplaces are positioned off-centre to the chimney stack, which would have allowed room for an additional flue to serve a fireplace within the workshop below.

It has been presumed that this space formed part of the Carriage Works operation and was a store for the wooden patterns and jigs which joiners used to produce standardised parts.[32] These may have been lowered down through the large floor hatch to the 'Repairing and Lifting shop' below. The hatch is boarded over in S2 but can been seen from G2 below (figure 29). An iron mount attached to the truss above this hole may have formed part of the lifting gear (figure 31). The existence of fireplaces would suggest the space was intended to be in constant use and may have had other uses beside mere storage (figure 32).

Figure 30. Roof structure in S2.

Figure 31. Detail of metal bracket attached to the king post truss which may have formed part of a hoist or lifting gear.

Figure 32. Blocked fireplace with rebuilt stack above.

Figure 33. S2 Looking east.

There are two door openings in the west wall, one of which provides access into the 'Cottage' and may belong to a slightly later phase, but the other opening on the left more likely dates to the first phase of use. This doorway provides access to a staircase which formerly led directly to the workshop below. The door to the stairs has been removed but the jambs appear to be original. The staircase is entirely independent of the adjacent accommodation staircase thus enabling a separation of living and working accommodation. This supports the theory that the second opening in the west wall belongs to a slightly later phase of alteration, when the 'Cottage' was perhaps no longer in use as residential accommodation.

The staircase is robust with a utilitarian finish (figures 34 and 35). It is formed of timber treads, risers and stringer but no handrail or balusters. Nails and a mortice in the top side of the stringer suggests there may have been a single baluster or post of a simple rectangular section, presumably fixed to a timber handrail, the ghost line of which can still be seen running across the landing joist.

The walls are of brick with a plaster finish, elements of which may be original. A diagonal line on the plasterwork of the external wall suggests some form of boarding or dado rail may have served to protect the wall (figure 36). There is a small landing or gallery over the stairwell with a suspended timber floor behind a handrail accessed by a secondary timber step (figure 37). The original lath and plaster ceiling has been removed leaving the ceiling joists and roof structure exposed to view. The staircase is now redundant, following alterations to the floor level in G5 (discussed below). The closed-string staircase is in contrast to the open-string winding staircase of the 'Cottage' and reflects its secondary status.

Figure 34. Staircase to workshop and S2.

Figure 35. Staircase looking towards S2; the line of a handrail runs across the landing joist to the right with timber step providing access onto the landing.

Figure 36. Bricked up doorway which formerly led into the workshops. Note the line of a wainscot or dado to the external wall to the right.

Figure 37. Landing.

Other internal evidence which can be attributed to the building's first phase can be found within the 'Cottage.' Although substantially modernised, fabric still remains of Sparkes' building. The plan of 1853 is still legible today on the ground-floor. The small residence allows for one room per floor accessed from a winding staircase around an open well. From Hopetown Lane, the entrance lobby provides access into the A1 Locomotive Trust offices and workshop. A newly formed corridor under the soffit of the original staircase leads into the south workshop beyond the lobby. The lobby features an original staircase with decorative tread ends and a curtail step, as well as a soffit lined by lath and plaster (figure 38 and 39). These features give the staircase a strongly domestic character. The stair treads have been recently covered, and the handrail and balusters are modern steel replacements. Skirting to the lobby is modern or painted plaster, although skirting to the stair appears to be historic.

From the entrance lobby there is access into a single ground-floor room. Given its proximity to the pantry, scullery and yard shown on the 1853 plans, it seems likely this formed the living-room/kitchen for the accommodation above. Grenville *et al* 2004 describe the ceiling then as lath and plaster with a painted finish and the walls built of brick with painted plaster finish. At that time there was a small recess in the east wall containing the remains of flues from the former outbuildings which stood on the north side of the central block. The room has since been restored and replastered and the recess is no longer visible. There is also no trace of an original

fireplace, which was positioned along the east wall, or of the external door opening which provided access to the scullery/ pantry extension and yard. Whilst the entrance door is modern, the timber reveals appear to be original but are missing their architrave on the inside (figure 40). The window shutters, boxes and jambs also survive and remain some of the best surviving joinery from the building's first phase (figure 41).

Both the first and second floors have been heavily modernised, and no historic features were visible at the time of survey, but the plan form is likely to be faithful to the first phase of construction. Photographs taken prior to restoration works indicate that F1 formerly had a cupboard in its east wall, now boarded over.[33] One image appears to show the outline of a blocked-up fireplace to its right (figure 42). Grenville *et al* 2004 describe S1 as formerly having a lath and plaster ceiling, now either concealed or removed.[34]

Figure 38. Staircase with modern handrail.

Figure 39. Lath and plaster to underside of staircase.

Figure 40. Architrave of door into G1.

Figure 41. Room G1 window shutters.

Figure 42. View looking north east into room F1 in 2017 before the walls were plastered and a new ceiling introduced. Signs of the original lath and plaster ceiling are visible on the underside of the ceiling joists, and the faint outline of a blocked fireplace is to the right. The cupboard in the corner has since been plastered over. Reproduced by kind permission of Tony Lord A1/SLT.

Phase 2 - Later 19th century alterations and re-use

When first opened, the Carriage Works role was not to construct carriages for the S&DR but rather to maintain the existing rolling stock. Its workforce was initially very small; a contemporary source lists just eleven men and indicates their respective trades:

William Braithwaite (painter)
Thomas Hobson (painter)
James Dickson (trimmer)
William Walker (trimmer)
William Thompson (trimmer)
John Thompson (woodman)
George Moses (woodman)
William Morrell (smith)
- Hodgson (striker)
Joseph McDermid (apprentice)
Matthew Garthwaite (apprentice)[35]

Six years after opening, the S&DR were still commissioning railway carriages from external contractors. A contemporary newspaper article indicates that the Works, whilst probably focusing on repair, had the skill and ability to construct 'pattern' carriages.[36] In October 1859, the S&DR advertised for the supply from external contractors for '2 or 4 First Class Carriages, 8 Second, 2 Third, 6 Composite, 4 Vans'. They asked that interested parties apply to 'the Railway Company's Coach Works, Darlington', to see the plans and view the 'Pattern Carriages'. A contemporary source name the successful contractors as Gilkes & Wilson of Middlesbrough and Kitching's of Darlington.[37]

The process of repair continued for a number of years until the Works was 'extended' after which a contemporary source delights that 'for many years now some of the finest work sent out from the establishments of the North-Eastern Railway have been made at the Darlington works'.[38]

An early change within the fabric of the Carriage Works building appears to have been the removal of the ground-floor walls between the workshops and the 'Repair and Lifting Shop'. Today, the original brick cross walls survive as nibs that now provide the bearings for iron beams (figure 26). The rivetted iron box-beams, which rest on timber pads, span the width of the building – a distance of approximately 12.6m (figure 43). Sitting directly on the beams are the walls and flues of the upper storey (S2) which sit on the same alignment (figure 27). The trussed timber girders to the floor above are further strengthened with the addition of timber struts braced against the bottom flange of the box-beams (seen in figure 27). The box-beams have machine-riveted multiple vertical plates, whilst the long horizontal plates appear from inspection to be a single long section, riveted to the vertical plates.

Figure 43. Box-beam in the north workshop. The timber struts support the trussed timber girder of the floor of S2.

The removal of the internal walls and insertion of beams allowed for the clearance of the workshop floor providing a larger and more flexible space. Possibly in association with the removal of the internal walls was the addition of a pair of timber laminated cross-braced bow-string truss, which are positioned parallel to the iron beams described above (see figure 44). The lower member of the laminated timber truss within the south workshop still carries, on its outward face, a length of metal track terminating in wedge-shaped timber stops (figure 45). The trusses are independent of the roof structure, providing it with no support and bear directly onto the brickwork walls, above timber window lintels. Briden suggests that they are the remains of an under-slung, overhead travelling crane operating in the area once occupied by the central Lifting Shop, traversing at right angles to the tracks; this interpretation is reiterated within the Conservation Plan in 2004.[39]

The choice of a timber bowstring truss is curious. It is a structural element in which the diagonal bracings are connected to an top curved chord and a bottom straight chord. The truss was one of a number of developments in the 19th century which sought to traverse spans of up to 100 feet (approximately 30m) in order to provide unimpeded floor space below. Their application in the later 19th century and early 20th century was largely as timber roof trusses which were strong and cheap to produce, and as iron or streel trusses within bridges.

The top chord or member of the truss comprises five layers of horizontal timber planking laminated together. The lattice work between the two members is formed of large timber vertical and cross-braces which are bolted to the lower chord (and possibly the top?) providing additional structural stability. The bowstring trusses must postdate the installation of the adjacent box girders – their operation as an under-slung crane would have been impossible had a cross wall still been *in situ* and their use even more mysterious had they been installed immediate adjacent to the formerly existing brick cross walls. The use of a bowstring truss appears on the evidence to have been both a crude and a cheap alternative to the more advanced travelling cranes already employed in railway workshops. It is possible that the installation may postdate the building's use as a Carriage Works; it has been suggested the building found other uses as a railway wagon repair shop and as a store for non-ferrous components salvaged from locomotives which were dismantled in the yard outside the building.[40] Both may have required some form of lifting gear.

Carriage design was evolving in the later 19th century. The Midland Railway, for instance, had introduced the first bogie carriages into service in the 1870s; one example was a 54 foot (16.4m) long composite carriage with clerestory roof.[41] However, the Midland Railway were amongst the exceptions, and many other companies were slow to introduce the advanced chassis design which for most was another decade coming. Such carriages would have been too long to be repaired or produced at the Carriage Works within its original layout without considerable alterations to the built fabric. With the advance in carriage design and the Carriage Works' restrictive size and layout, the building was eventually unable to handle the increased length of carriages in use.

In October 1885, the North Eastern Railway (NER) (who had merged with the S&DR in 1863) announced that their Carriage Works, which at that time employed 150 men, was to close. It was 'found more economical to do all carriage works at York'.[42] By March 1886 the workforce stood at 120; of those remaining a number were transferred to other railway works, including York, Shildon, West Hartlepool and Gateshead, whilst 20 men were pensioned off.[43] A few were kept on to 'assist in the removal of the machinery' which was to be transferred to other works.[44] The NER ceased construction and repair of carriages at the Works at the end of March 1886.[45]

The dwelling house, however, continued to be let. Census records from 1891 record 13 Hopetown Lane as the 'Old Railway Coach Works Dwelling House & Railway Coach Works'. It was then occupied by William Robinson, his wife Bessie and their eight children. He was unrelated to the railway industry, being a shoemaker and newsagent.

Figure 44. Bow string truss, north workshop.

Figure 45. The bow-string truss showing the iron rail and timber stop on its outward face.

The Carriage Works was captured in an image shortly after closure in 1895 (figure 46). The busy yard is still apparent, and a large rectangular shed-like building is shown adjacent to the Carriage Works to the south - perhaps the 'extension' referred to in a contemporary source? The form of the Carriage Works is recognisable in the background with ventilators to the southern workshop roof. The roof lights to the workshops and over the central block are also clearly shown as are a pair of windows in the south elevation. It is unclear from the image what use, if any, the building had been put to.

Figure 46. The North Road railway yard taken from Station Road. The Carriage Works can be seen in the background, to the right of a large building. Reproduced courtesy of Ken Hoole Study Centre, Head of Steam Railway Museum, Darlington.

The 1898 Ordnance Survey 2nd edition, surveyed in 1896, (figure 47) indicates a number of changes to the site since the first survey of 1854. The L-shaped extension attached to the north elevation of the Carriage Works had been removed and two spur lines laid in its place leading up to the north elevation. The only internal evidence in the fabric is for the fairly narrow central doorway. Therefore, only the western of the two lines (if either) could ever have entered the building. Indeed, a photo from c.1939 shows the eastern spur terminating against the north gable wall. Although somewhat later, an image from c.1930 held in the Ken Hoole Study Centre (see figure 49) would also support this; it clearly shows one spur terminating against the north gable end of the building, and the central entrance door to its right.

The Ordnance Survey of 1898 shows no tracks exiting the south elevation and no tracks are shown leading in through the original carriage doors in the east elevation, suggesting the building's eastern entrance had become obsolete and the rail emphasis had already shifted to the north of the building. The original carriage arch was likely infilled during this phase. The yard enclosures and associated outbuildings are still shown on the west wall of the building and a small structure is shown adjacent to the south-west corner of the building.

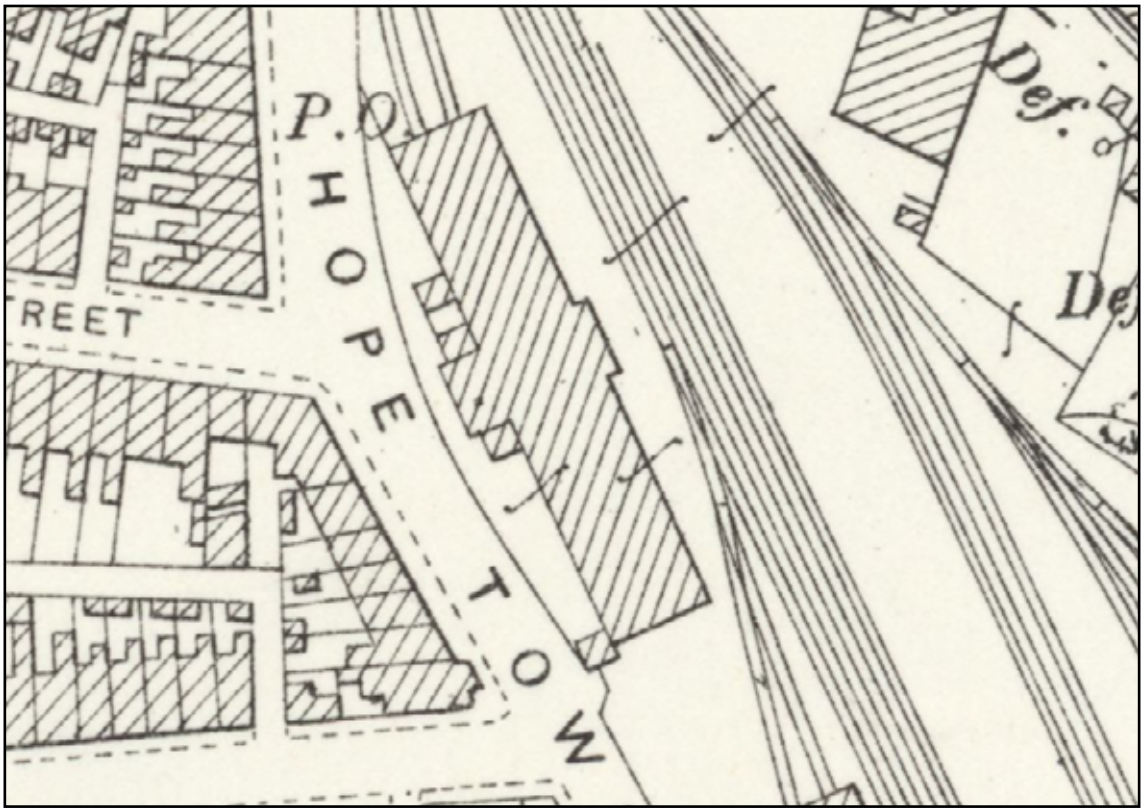


Figure 47. OS 2nd ed. 1898: Darlington 25-inch (1:2,500) (revised 1896). Reproduced by kind permission of the National Library of Scotland.

Phase 3 1900 to the 1980s

The census returns of 1901 do not record the 'Old Railway Coach Works' listed ten years earlier. This perhaps suggest that the dwelling house was no longer tenanted or that the memory of the Old Railway Carriage Works had sufficiently faded that it was no longer in use as an address. In the 1891 census, the Old Railway Coach Works is also listed as 13 Hopetown Lane. In 1901 Charles Roberts (56) a painter's labourer with four sons is recorded as living at that address. The buildings of Hopetown Lane have, however, been renumbered and number 13 now lies on the west side of the street; subsequent census returns, therefore, cannot be wholly relied upon.

It seems probable that when the 'Cottage' ceased in residential use, it found a new use, perhaps as offices and storerooms. The access between the top floor of the house (S1) above the workshop (S2) may have been formed during this period. The opening has a modern door and architrave within S1, but the soffits of tongue-and-groove are clearly historic; the treatment and width of the wall are uncharacteristic of others within the building and support the evidence that it was created in a later phase.

Few changes are apparent on the 1915 edition of the Ordnance Survey, revised 1913-14 (figure 48). The North Road triangle remains busy with railway sidings whilst new tracks have been laid to the foundry. The map also suggests the north workshop is now divided off by an internal partition from the central block and south workshop, perhaps implying a separate use of the two sections. Up to 1928, it is believed the North Eastern Railway Rifle Club used the building as a shooting range which may account for the subdivision shown on the map.[46]

The Carriage Works is depicted in a photograph thought to date to the 1930s (figure 49). Prominent is the central timber door in the gable-end, clearly sufficient for the entry of railway vehicles. A siding with parked wagons terminates in front of this elevation beside the pedestrian access door, and four sets of rails run parallel to the east elevation. The slate roof is punctuated with rooflights on the north and east facing roof slopes and the outline of rooflights can just be seen on the roof of the central block. Whilst the present windows to the workshops are all modern and echo the mullion and transom arrangement of the windows shown on the 1853 drawing, this image appears to show the north workshop with multiple-light industrial-style metal framed windows to all eight bays.

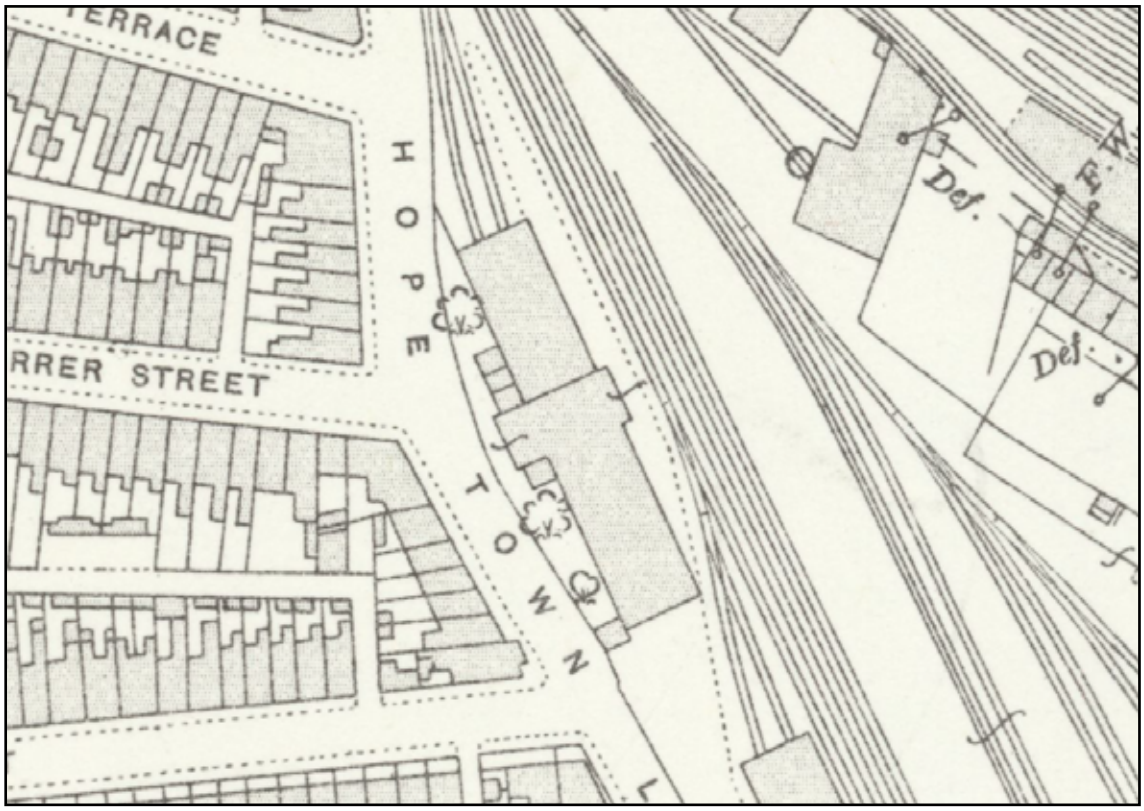


Figure 48. Ordnance Survey 3rd edition 1915: Darlington 25-inch (1:2,500) (revised 1913-14). Reproduced by kind permission of the National Library of Scotland.

Figure 49. North and east elevations of the Carriage Works in the 1930s Reproduced courtesy of Ken Hoole Study Centre, Head of Steam Railway Museum, Darlington.

The Ordnance Survey map of 1947, revised in 1939, shows a similar two-track arrangement to the north elevation depicted on the 1930s image, as shown on earlier maps (figure 50). The unknown rectangular structure first shown on the OS 2nd edition of 1898, surveyed 1896, and depicted on the 1895 photograph (figure 46), is no longer extant. To the south, a road enters from Hopetown Lane and approaches the south elevation, possibly entering the building – suggesting that the south workshop access doors had been formed sometime between 1914 and 1939. Changes to the outbuildings have taken place; that to the south-west corner has disappeared, and the latrine yards on the north and south side of the central block have been removed. The yard to the south side appears to have been replaced by a structure in a slightly different position, set back from the west elevation of the workshop wall. The infilling of the doorway to this yard may have taken place at this point.

The concrete floor in the northern workshop (G3 and G2) may date to this third phase. There is evidence of a former inspection pit running the length of the north workshop which has been infilled at an unknown date. It is believed that 'Sentinel' steam railcars were stored here during the Second World War and that parts used in the construction of beach-landing craft were assembled here.[47]

The Ordnance Survey 1:1250 map edition of 1956, surveyed in 1953-5, continues to suggest that the building is located in a busy railway yard with a platform shown to the east (figure 52). The building is now annotated as a 'Warehouse' with a hoist also shown against the south elevation; hachures running away from the south wall suggest the ground surface here has been lowered, probably to facilitate road access to the gable end of the building from the gateway off Hopetown Lane. The outbuilding which may have contained a scullery and pantry in the 1850s, now appears smaller, corresponding with the evidence that several outbuildings were formerly located in this position (see figure 22). All other outbuildings have been removed.

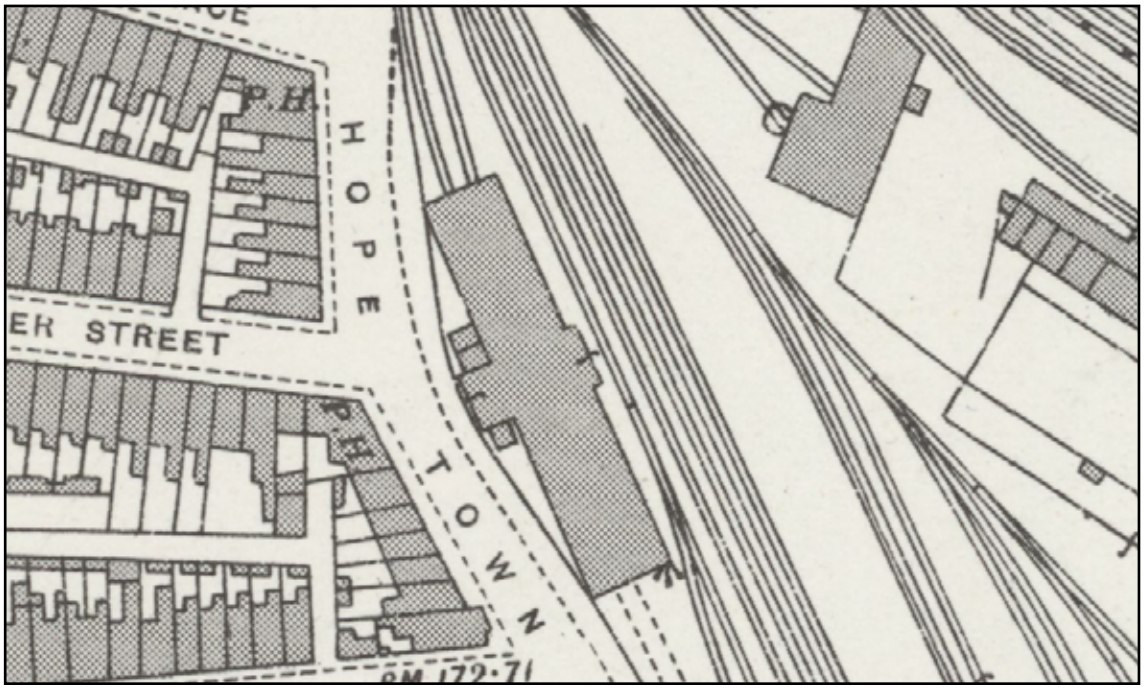


Figure 50. Ordnance Survey 4th edition 1947: Darlington 25-inch (1:2,500) (surveyed 1939). Reproduced by kind permission of the National Library of Scotland.

Figure 51. Phase 3 concrete floor to the north workshop

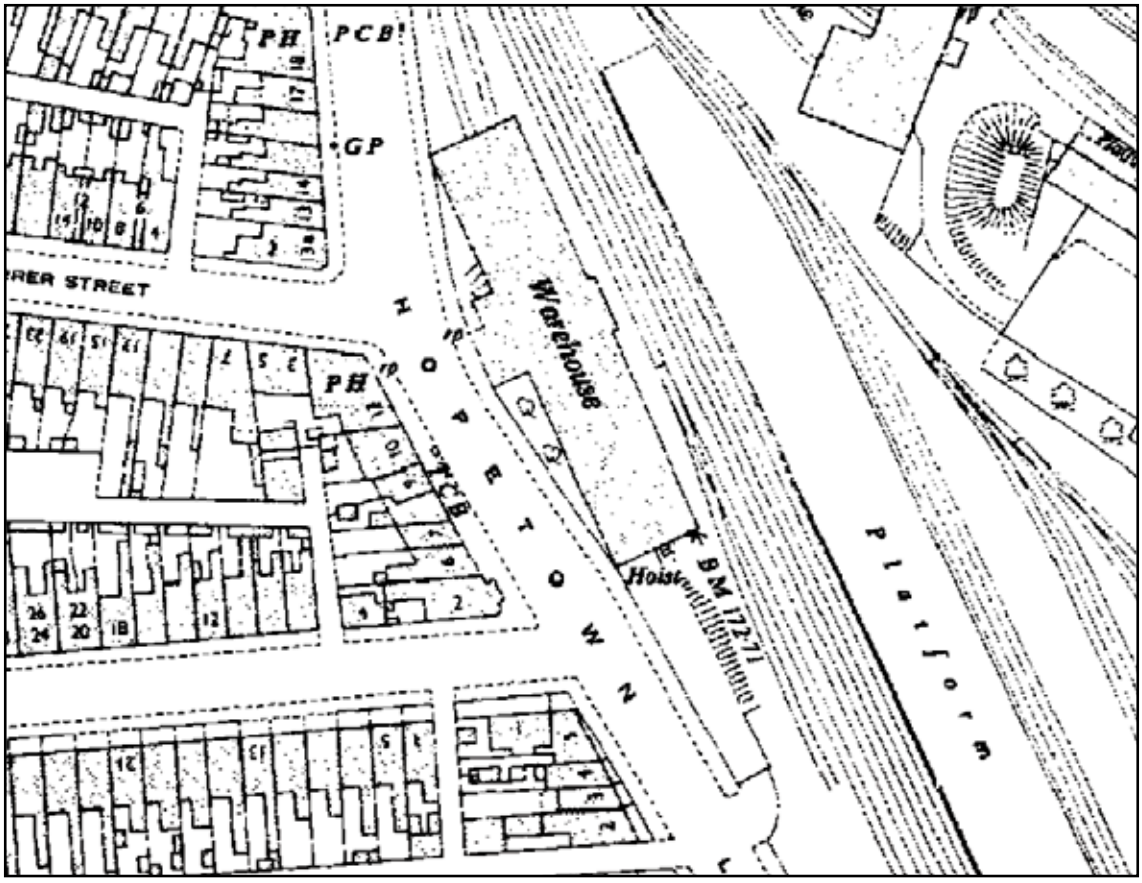


Figure 52. Ordnance Survey: National Grid Survey 1956, 1:2,500, surveyed 1953-4. Reproduced by kind permission of the National Library of Scotland.

Figure 53. The Carriage Works, circa 1950 to c1970. Reproduced courtesy of Ken Hoole Study Centre, Head of Steam Railway Museum, Darlington.

Around this time, or very soon after, a photograph captures the building's east elevation (figure 53). The photograph can be approximately dated by the Whessoe Engineering building shown in the background of the image which had been extended in the 1950s. The Carriage Works has by this time lost its rooflights and the roof over the central block appears to be in poor condition. The windows are visible, however, and the arrangement of timber mullions can be distinguished in the south workshop. Vegetation has grown up against this elevation and the number of tracks along the elevation has reduced to three pairs with an overall air of dereliction and decline. The Ordnance Survey 1:1250 revision of 1970-78 (not shown here), indicates that the building was by then a 'Garage', presumably for road vehicles as the map also shows the spurs to the north elevation had been removed and the building effectively divorced from the railway network.

Phase 4 – Purchase and restoration: late 20th century to date

The site was purchased by Darlington Council from British Rail in the 1980s and an agreement signed with the A1 Steam Locomotive Trust on 10 March 1995 permitting the Trust to set up its permanent base in what was renamed as 'Darlington Locomotive Works'. This agreement meant that the next Peppercorn 'A1' could be built in Darlington, continuing the tradition of their construction in the town; some 23 of the originals were built here in 1948/9 and many were scrapped on the site in the early 1960s.[48]

The Trust opened its works on 27 September 1997 in the southern workshops. The first phase of the restoration and conversion of the building was funded by grants from Darlington Borough Council (£50,000), the National Heritage Memorial Fund (£100,000) and the European Regional Development Fund (£150,000). Due to a lack of funds, the north workshop was not immediately restored. By the end of 1997, the floor to the southern workshop had been lowered by approximately 1m, the new extended carriage doors had been installed and a blockwork structure constructed

to house facilities and stores. [49] The staircase which had formerly accessed the workshop was bricked up. A lightweight partition was also installed between the two workshops and access created from the former 'Cottage' through to the southern workshop, below the original staircase.

The future of the northern workshop was secured in February 2002 when the North Eastern Locomotive Preservation Group (NELPG) acquired its tenancy from the Council. They also added modern blockwork facilities into their workshop.

In 2004 Darlington Borough Council commissioned a Conservation Plan (Grenville *et al* 2004) from the Department of Archaeology at the University of York, to inform the council's proposals to develop the education and tourism potential of the Darlington Railway Centre and Museum. Photographs taken for the Conservation Plan provide a valuable snapshot of the condition of the building at that time (see figures 14 and 22). At the beginning of 2008, new tracks were laid outside the Works, ready for the new Peppercorn Class A1 Tornado - the first mainline steam locomotive built in the United Kingdom since Evening Star in 1960. The Carriage Works appeared on Darlington Borough Council's 'Buildings at Risk Register' in Feb 2008.[50]

The building was partially restored in 2015-16, when the brick and stone exterior walls were rendered in cement and new sash windows introduced. A new handrail was installed to the main staircase and parts of the central block were restored as offices for the A1 Trust's staff. During this time the walls of G1, F1 and S1 were dry-lined, a modern concrete slab floor installed in G1 and the floors above strengthened by the addition of steel joists.

The building remains in use by the A1 Steam Locomotive Trust and the North Eastern Locomotive Preservation Group although their activities are limited by the restricted headroom and lack of connection to live line. Plans being formed under the Railway Heritage Quarter Masterplan currently propose that one or both of the organisations relocate to bespoke premises and the Carriage Works is adapted to new uses. There is therefore potential for further inspections and a full recording of the structure prior to future adaptation and refurbishment works.[51]

Figure 54. Photograph of 1997 the southern workshop, looking south, showing restoration in progress (https://www.a1steam.com/darlington-locomotive- works/).

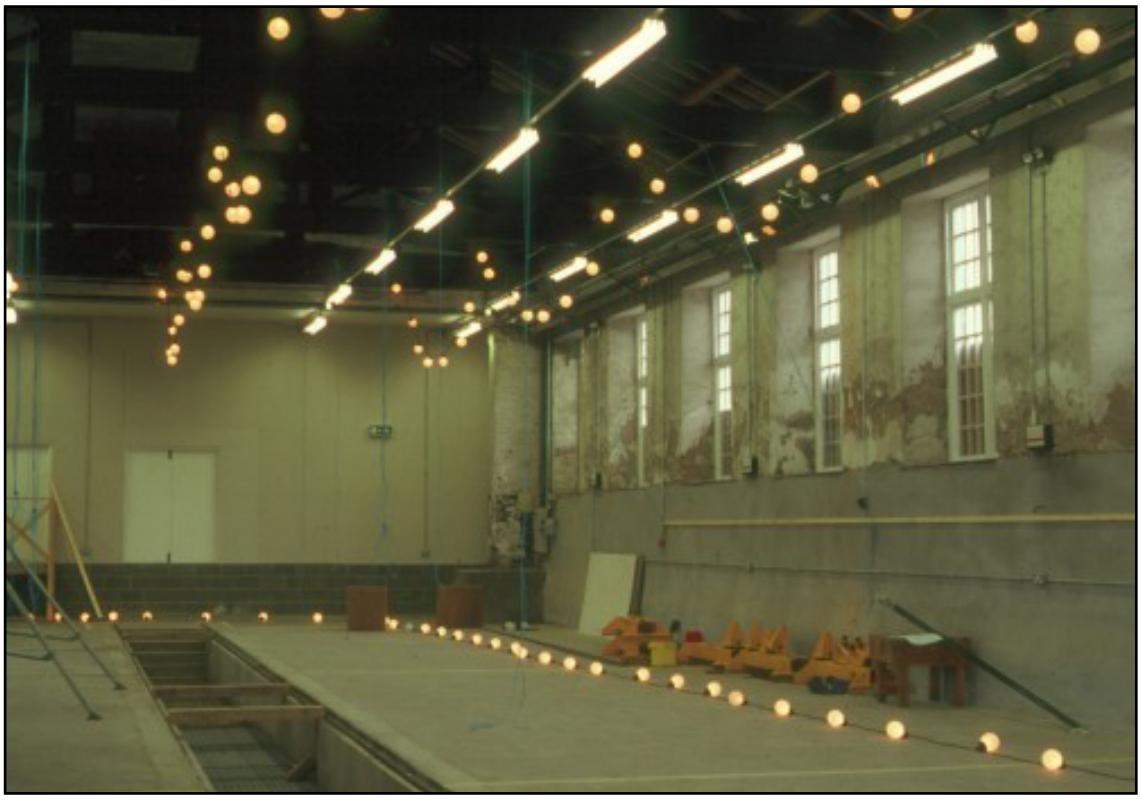


Figure 55. View taken in 1997 of the southern workshop, looking north, showing the new inspection pit. (https://www.a1steam.com/darlington-locomotive- works/).

Figure 56: Photograph taken in 1999 of the southern workshop, looking south. Note the top of a blocked opening just visible to the left. (https://www.a1steam.com/darlington-locomotive-works/).

Figure 57. View looking south west in room F1 in 2017 before the walls were plastered and a new ceiling introduced. Reproduced by kind permission of Tony Lord A1/SLT.

Figure 58. View looking north east in room S1 in 2017 shortly after being replastered. Reproduced by kind permission of Tony Lord A1/SLT.

PHASES OF DEVELOPMENT

This section summarises the phases of development as determined by the analysis in the previous section. The building can roughly be broken down into four principal phases, and whilst fabric from the initial phase of construction has been identified, there are still questions regarding the date of subsequent changes. The four principal phases can be summarised as follows:

Phase 1 (1853) - This relates to the building's original layout as designed by Joseph Sparkes and largely comprises the building's envelope, roof structure, staircases and the main walls and floors within the central block originally known as the 'Cottage'.

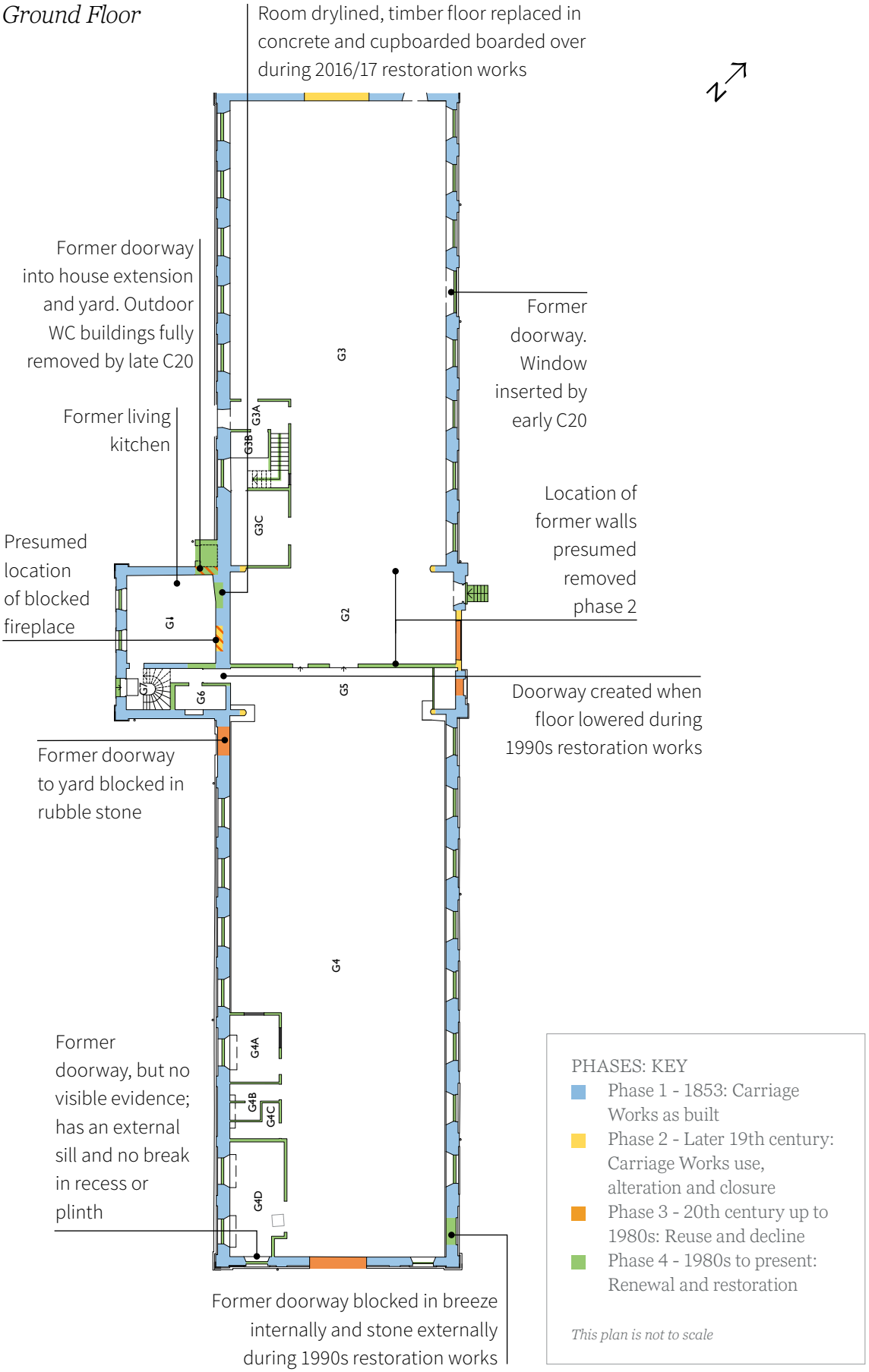
Phase 2 Later 19th century – During or soon after the Carriage Works went out of use in 1886, a number of alterations were made, including the removal of internal walls between the workshop wings and the central workshop, the insertion of box-beams and also the addition of bow-string trusses. The exact date cannot be ascertained. The subdivision of spaces proposed by Sparkes in his original plans could not be confirmed from the fabric evidence, but had they existed, these walls were probably removed within this phase of development. The north gable end doors were likely inserted at this time, and the east elevation doors went out of use as track access was focussed on the north of the building.

Phase 3 20th century to 1980s – During the 20th century, the Carriage Works had a number of uses. The cottage appears to have gone out of use as a residence and the workshop's first-floor room was connected by a door to the Cottage's second floor. The concrete floor of the northern workshop was likely installed during this period, as were the central doors into the south gable end. The latrine yards and the Cottage's scullery and yard were removed. At some point the fireplaces were blocked up. The building was reroofed late in this period and the roof lights were removed. The building, along with the wider area, went into a decline but the Carriage Works was saved from further dereliction when it was purchased by the council in the 1980s.

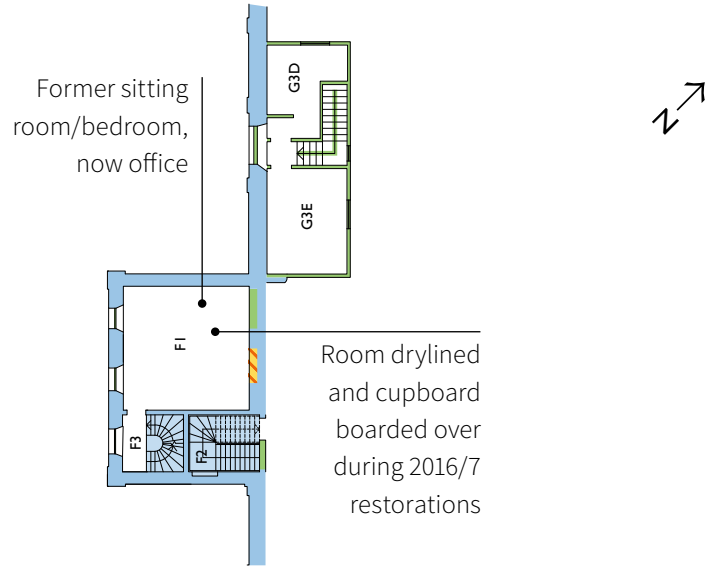
Phase 4 – 1980s to the present – This period is represented by significant change to the building as it was adapted and reused by two charities engaging in the construction and maintenance of steam locomotives. This includes the lowering of the workshop floor by 1m in the southern wing, the blocking of access to the workshop staircase, the insertion of a wall to divide both workshop areas, the construction of modern blockwork facilities in both workshops, replacement windows throughout and the modernisation of the Cottage.

Please note that the plans on the following pages are also reproduced and printable at A3 in the appendices. Areas hatched with two colours represent uncertain phases of development.

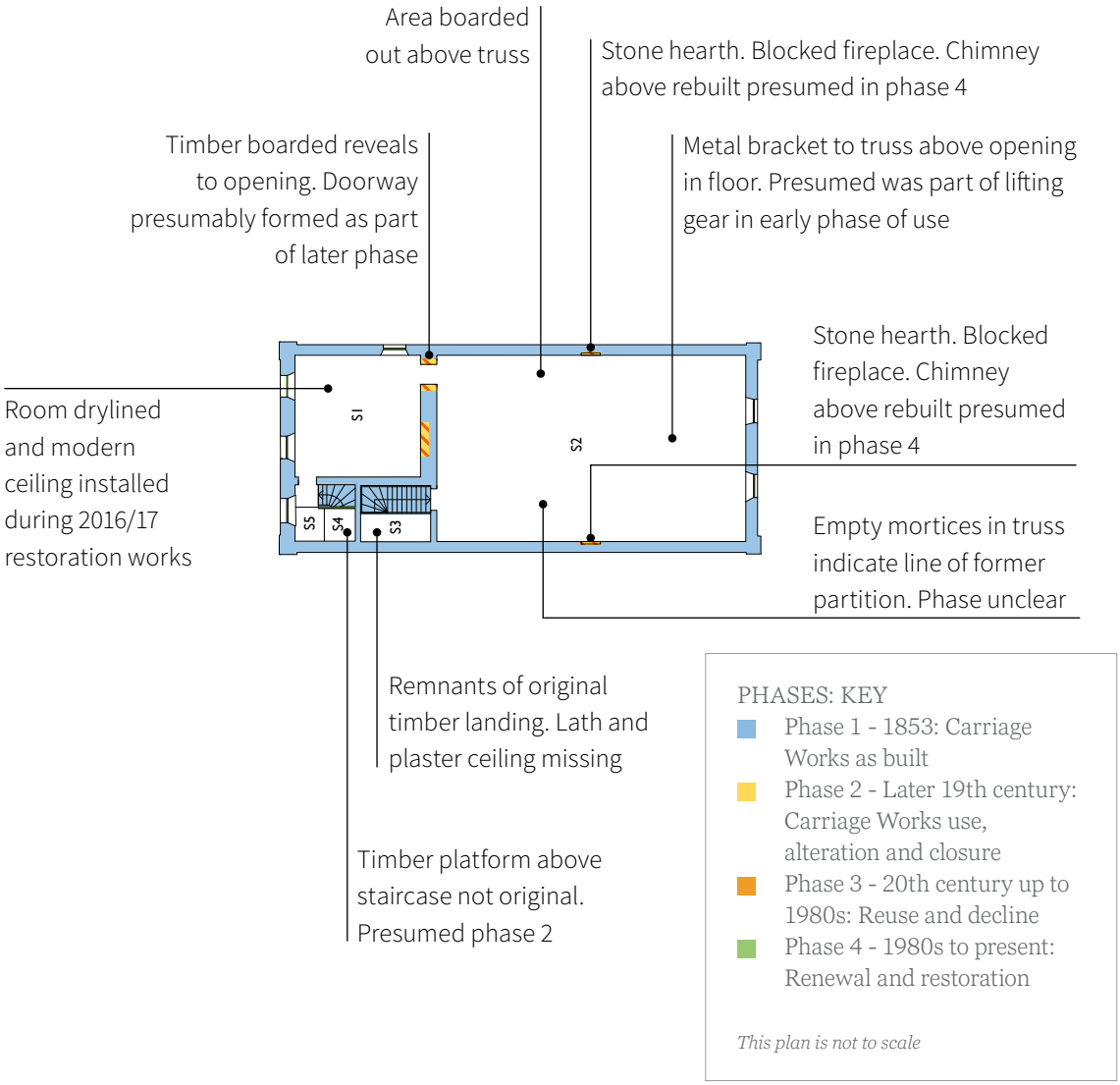
Ground Floor



First Floor



Second Floor



Discussion

It is interesting to consider that the S&DR approved the construction of their new Carriage Works in Darlington only five years before they erected a major new locomotive works a short distance away. In 1858 the S&DR purchased land immediately north of the station in the angle between Whessoe Street and North Road; construction of the new locomotive works here began in 1860 and this extension to the North Road works was opened in 1863. A factor in the S&DR's planning of the locomotive works was the need to design the buildings so they could be readily expanded. As such they were designed to be 'modular'; the use of arcading enabled the buildings to be easily extended.[52] Designed by William Peachey, the result was considered to be an improvement on their old works and on the rival NER's Gateshead works. The buildings were lofty and spacious with plenty of headroom in which to manoeuvre locomotive parts on overhead cranes. Peachey's design is in stark contrast to Sparkes' slightly earlier design for the Carriage Works, where space was constricted and building enlargement difficult if not impossible.

The Great Northern Railway's (GNR) Doncaster Works were built at a similar time, in 1853. The works focussed on the repair of locomotives and of carriages. Their Carriage Repair shop, like the Hopetown Works, repaired carriages but on a much larger scale. The carriage shop was a large, almost square structure in plan with central, opposed doorways. It included 16 roads and areas for storing and drying timber. Offices were within a separate building from which the operation was overseen. The whole plant employed 950 people in its first year, but rapidly expanded.[53]

Sparkes' building was an early attempt at a carriage works, but perhaps demonstrates his limited experience of railway structures, and in comparison to other contemporary railway workshops it was relatively modest in size. The short-axis entry was not an unusual arrangement at this time; for example, the nearby Goods Depot on North Road (Grade II*, NHLE: 1121262) had short-axis entry. The earliest known examples of goods sheds from the 1840s, including the nearby NER goods shed which had been located near North Road Station, and the goods sheds at Micklefield and Hexham (Grade II, NHLE 1096878) all had turntable entry.[54] The Carriage Works was therefore adopting an already established practice where turntable entry was common. The use of turntables was largely abandoned in railway buildings after 1860, except in urban contexts where space was limited, with direct track entry system becoming the preferred option within railway buildings.[55]

The early railway carriages were light enough to be manoeuvred into the Carriage Works by manpower or with the assistance of horses. The carriages entered the site by means of a spur which lay parallel with the east elevation of the Carriage Works. From here the carriages were turned through 90 degrees on a turntable and rolled onto a short section of transverse track laid at 90 degrees to the main running lines. The carriages were then led through the arched opening located at the centre of the east elevation. Once inside, the 'Repairing and Lifting Shop' they might again be moved into the adjoining workshops via turntables and rolled along one of the sets of

Figure 59. Carriage No.179, thought to have been built in 1865 at the Hopetown Works. Image reproduced under the Creative Commons License courtesy Ultra7.

tracks which ran the length of the building. From start to finish, the whole process of repair and construction was inefficient. The central entry did not promote the production-line process, and it was only possible to move one carriage at a time. As carriage design developed, the ability of the coachworks to cope with longer carriages would have made its antiquated system of side entry and turntables increasingly redundant. An example of the type of carriages produced at the Works during its operation survives today as the 'Forcett Coach', No.179 now restored and on display at the Beamish Museum (see figure 59). Believed to have been constructed in 1865 it was a third-class coach and perhaps the longest carriage the Hopetown Carriage Works could accommodate.[56]

According to a newspaper article, machinery installed in the Carriage Works was removed when the Works closed in 1886.[57] The machinery would have comprised all manner of wood-, metal- and textile-working machinery. Joiners prepared the carriage wall-panels on jigs following assembly, 'trimmers' would have been responsible for dressing or repairing the interiors, particularly in the first-class carriages, and were probably located within the joiners' shop. Smiths carried out repairs to or assembled undercarriages or chassis. Given the rather limited facilities shown on the plans of the building, it is unlikely that the Works constructed items such as axles and mainframes; these were probably supplied instead from the nearby

Kitching foundry, or perhaps by the 1860s from the S&DR's own North Road Works on the other side of the main line.

The primary material in carriage construction until the early 20th century was timber, making them light.[58] Until steel frames and bodies were introduced in the 20th century, carriage bodies would have required regular maintenance and repair. The carriage body was made up of separate timber panels attached to a timber frame. The sections were then assembled upon the timber underframe which was attached to the wheel axles. Patterns were used to construct sections of the body to ensure efficiency and uniformity.[59] These are believed to have been stored within the room above the 'Repair and Lifting Shop' at the Carriage Works.

Whether the terminology of 'Lifting Shop' used on the 1853 plan merely refers to the raising and lowering of patterns between the workshop and floor above is unclear. The assembly or separation of the carriage body from its axles is likely to have been required both for construction and repair of carriage. Some form of mechanical intervention may have been necessary from an early stage, and what form this took in the early days of the Carriage Works is unclear. That a travelling crane was introduced in a later phase of the building's use appears likely from the fabric evidence, but it required substantial alterations to the built fabric to install and it is still unclear if this occurred before or after the Carriage Works ceased to function.

Travelling cranes were first used in dockyards at the start of the 19th century, but railway locomotive builders initially showed little initial enthusiasm for travelling cranes. However, by the 1830s locomotive foundries began to adopt the technology. Isambard Kingdom Brunel and engineer Daniel Gooch, for example, incorporated a hand-operated, hydraulic, overhead travelling crane within the erecting shop of their new Swindon Railway Works in 1842. Travelling gantry-cranes soon became a regular feature of civil engineering projects and at the time the Carriage Works was under construction, the use of the overhead travelling crane was considered unremarkable unless they featured a new innovation.[60] The NER installed an overhead travelling crane into their new North Road Works in Darlington in 1862, and it seem likely that operations within the Carriage Works such as the lifting of heavy machinery or the separation of the body of rolling stock from its axles would have required some form of mechanical intervention and a travelling crane is the most likely choice of machinery.

There are, however, a number of fundamental differences between the potential Carriage Works crane and other commonly utilised cranes of the period. The bow-string trusses are constructed in laminated timber, a cheaper alternative to iron or steel; also, the horizontal lower member on the example in the south workshop carried on its outward face a length of iron track terminating in wedge-shaped timber stops; in the example shown below and known to have existed at the Swindon and the Darlington Works, the track runs on top of iron beams which rest upon piers flanking the full length of the workshop. The iron track is missing from the north workshop truss and difficulty obtaining access and the overpainting of the trusses made close examination difficult. It seems entirely plausible, however,

that the crane was under-slung between the two trusses and worked across the full width of the repair and lifting workshop. This form was likely to have been adopted for practical reasons as there was insufficient clearance for any other type of crane because the floor of the first storey of the central block prevented it. Other similar examples from this period have yet to be found and it may be an unusual example of this type of crane.

When the Carriage Works opened in 1853, carriage design had been progressing at a sedate pace. Carriages were short and of only two or three axles; the more sophisticated bogie wheels were not introduced until the 1870s and then only slowly adopted by railway companies over the following two decades.[61] Such carriages would have been too long to be repaired or manufactured at the Hopetown Carriage Works which had originally utilising short-axis entry and turntables, without major alterations to the built fabric. With the advance in carriage design and the Carriage Works' restrictive size and layout, the building could not keep up with changes and the NER made the decision to remove the carriage building away from Darlington.

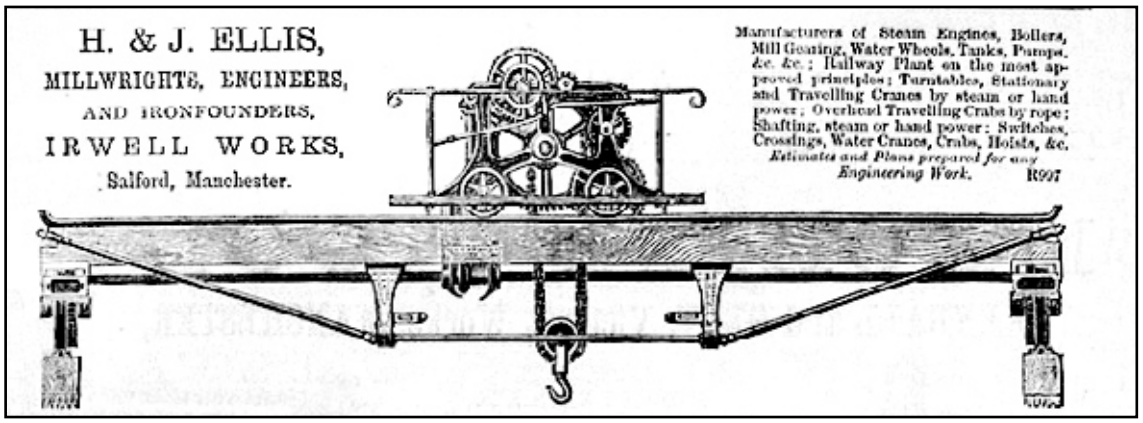


Figure 60. Advertisement showing an H & J Ellis travelling crane from 1870. Image reproduced under the Creative Commons License courtesy Wikimedia Commons.

SIGNIFICANCE DISCUSSION

Introduction

The concept of 'significance' is a collective term for the sum of all the heritage values that society attaches to a place. Understanding who values a place and why, provides the basis for managing and sustaining those values for future generations.

The significance of the S&DR Carriage Works has been informed by Historic England's *Conservation Principles* (April 2008), *Managing Significance in Decision-Taking in the Historic Environment* (March 2015) and *Statements of Heritage Significance: Analysing Significance in Heritage Assets* (October 2019). The latter recommends making assessments using the following categories, but will also consider its setting and value to the community:

Archaeological interest

There will be archaeological interest in a heritage asset if it holds, or potentially holds, evidence of past human activity worthy of expert investigation at some point.

Historic Interest

An interest in past lives and events (including pre-historic). Heritage assets can illustrate or be associated with them. Heritage assets with historic interest not only provide a material record of our nation's history, but can also provide meaning for communities derived from their collective experience of a place and can symbolise wider values such as faith and cultural identity.

Architectural and Artistic Interest

These are interests in the design and general aesthetics of a place. They can arise from conscious design or fortuitously from the way the heritage asset has evolved. More specifically, architectural interest is an interest in the art or science of the design, construction, craftsmanship and decoration of buildings and structures of all types. Artistic interest is an interest in other human creative skills, like sculpture.

Levels of Significance

The following approach to defining levels of significance is proposed and has been adapted from that devised by J Kerr (1982) based on the Burra Charter.

High Significance: A theme, feature, building or space which is has a high cultural value and forms an essential part of understanding the historic value of the site, while greatly contributing towards its character and appearance.

Large scale alteration, removal or demolition should be strongly resisted.

Medium Significance: A theme, feature, building or space which has some cultural importance and helps define the character, history and appearance of the site. Efforts should be made to retain features of this level if possible, though a greater degree of flexibility in terms of alteration would be possible.

Low Significance: Themes, features, buildings or spaces which have minor cultural importance and which might contribute to the character or appearance of the site. A greater degree of alteration or removal would be possible than for items of high or medium significance, though a low value does not necessarily mean a feature is expendable.

Neutral: Themes, spaces, buildings or features which have little or no cultural value and neither contribute to nor detract from the character or appearance of the site. Considerable alteration or change is likely to be possible.

Intrusive: Themes, features or spaces which actually detract from the values of the site and its character and appearance. Efforts should be made to remove these features.

ASSESSMENT OF SIGNIFICANCE

Archaeological Interest

The surviving plan and elevation by Sparkes provide a valuable insight into the architect's original design intentions, certainly as far as the ground floor of the workshops, cottage and yard buildings are concerned. They potentially provide important evidence of later changes and alterations. These include, but are not limited to: the original dividing walls separating the central repairing and lifting shop from the joiners' shop to the north and the paint shop to the south; the original layout of the offices, store and smiths' shop at the ends of the ranges; the internal arrangement of the yard along the west elevation; the existence of roof lights and the positions of former external doors and windows, and confirmation that the gable end carriage doors were introduced at a later date. This is supported by evidence of these changes visible within the built fabric, including the surviving wall stubs which now provide the bearing points for the large iron beams spanning both workshops. Whilst some of this evidence was partially captured in previous photography, these and potentially unknown features now lie hidden behind the recent re-rendering of the external walls.

More could be learnt about the form and extent of surviving below-ground remains of the yard structures formerly abutting the west elevation. The precise nature and appearance of the store and office enclosures shown on the original plans at the south end is also unclear. The L-shaped structure, which was once appended to the north elevation, is also little understood.

There is more to be understood about how the early carriages were moved around the building. The Ordnance Survey maps indicate the existence of turntables, but it is unclear if below ground evidence of these survive. Early railway carriages were small, largely timber-built structures, so it seems plausible that these were man-handled through the building.

Despite research, the precise purpose of the bow-string truss has remained elusive. Did they in fact support an under-slung travelling crane in the building's workshop days or did they serve another purpose relating to later uses of the building?

Historic Interest

Illustrative

The Carriage Works was the last major structure to be built within the North Road triangle. When the Carriage Works was constructed in 1853, other railway companies had already started to provide workshops for the construction and repair of carriages as well as locomotives. Its design, layout and mode of construction consisting of coursed rubble, brick and lime render would have seemed unremarkable at the time. However, the use of brick and rubble-stone may have made it economical to construct and the simplicity shown in its design reflects the

Quaker values of restraint as well as being suitable for an industrial building. The classical mouldings on the central three bays of the long elevation facing the track, however, show that it was treated with architectural thought and dignity.

During the mid-19th century, it stood at the edge of a thriving, noisy railway complex containing the main Station, the Foundry, the Smiths' Shop, Waggonwrights' Shop, Fitting Shops and Storehouses. Many of these building have been demolished, but the North Road Station, the Goods Shed, the Goods Agent's House and the Lime Depot survive, as does the site boundary wall. The Works are therefore also valuable for their contribution to the wider group of surviving buildings and structures.

A set of tracks to the east of the Works originally provided access for the small, four- wheeled carriages which entered the building, via turntables, through the east elevation arch. The access arrangement of the Carriage Works was not unique; similar to the nearby Goods Depot (or 'Merchandise Station'), it had entry on the short axis as opposed to the more efficient long axis entry which was to be adopted by railway works in the latter half of the 19th century. Its design did not anticipate expansion, and its modest size and awkward layout were not conducive to the efficient operation of a production-line process. As such the Carriage Works did not influence the future design of railway works buildings. That the building is still extant on North Road is partly due to its ability to adapt – its current use for the restoration and constitution of steam locomotives is possible because of the historic insertion of openings in both gable ends.

The significance of the Carriage Works lies in its uniqueness and survival. It is the oldest known railway carriage manufactory in the UK. It was built alongside a complex of surviving railway structures that represent the first generation of railway buildings, the design of which owed much to trial and error, located in the birthplace of the world's modern railway system. It is also highly significant that the building's function is still related to its past use, although in the restoration and construction of locomotives as opposed to carriages.

Associative

The Carriage Works' associative value lies in its connections to the Stockton and Darlington Railway, the first public railway company to use steam locomotives. It was constructed 10 years before the S&DR merged with the NER and is associated with a number of other extant railway buildings constructed by the S&DR within the immediate area. The building was designed by a local architect, Joseph Sparkes, who was also responsible for a number of other structures in Darlington. The building is now associated with locomotive construction and restoration and with the Trusts who operate from the building.

Architectural or Artistic Interest

The Works were commissioned by the Stockton and Darlington Railway for the construction and repair of passenger carriages. It was designed by a local architect as a utilitarian structure and was reportedly stripped of all unnecessary ornament in its final design stages by the railway company. Unlike the Railway Station, which presented a public face, the Works were never designed to be seen in the same light, so did not perform the same marketing function. Despite the building's rather restrained, functional appearance, the exterior facing the rail tracks is in the Classical style, and incorporates several architectural elements of note including the stone dressings and the elegant arched voussoirs above the original entrance, springing from moulded impost bands.

Internally, the main staircase has been partially replaced but retains key features such as decorative tread ends to demonstrate its quality. The pattern store and back staircase have survived recent modernisation. These two spaces in particular, provide a tangible connection to the former occupation, use of and circulation through the building.

Several notable features detract from the aesthetic value of the interior which, if removed, would enhance the appearance and legibility of the building. The three principal spaces (north range, central block and south range) are still perfectly readable in the plan, but the seemingly arbitrary position of the stud partition between the two workshops, which cuts through the bricked-up entrance arch, impacts negatively on the original layout. The infilling of the archway, the formation of a doorway in the original front window, the lowering of the floor and the blocking up of the original staircase have further eroded this understanding. Other minor alterations including the modern blockwork offices to both workshops also impact negatively on both spaces, but their diminutive scale and reversibility reduce the scale of harm. Reinstating the original volume of the central block and linking it vertically once again with the former second floor pattern store would significantly enhance the interior and legibility of the listed building.

Despite the loss of architectural features such as rooflights, there is a potential to reintroduce or mimic such features by the judicious installation of solar or thermal panels which could provide a source of green energy to the building.

Communal Interest

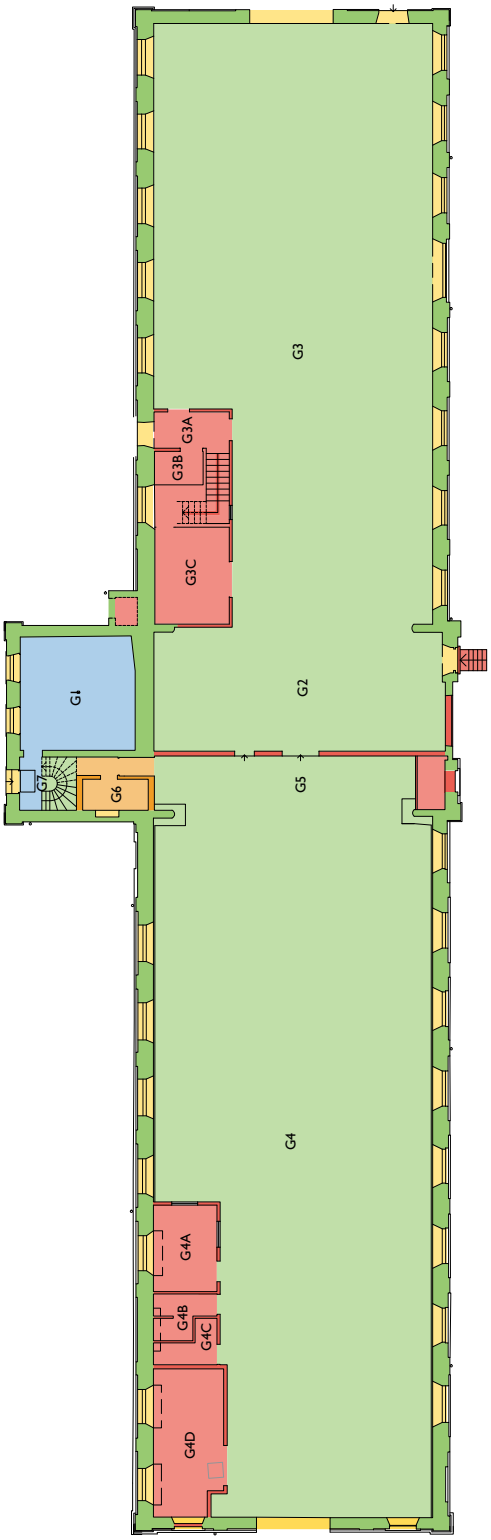
The Carriage Works is significant for its associations, both past and present, with railway heritage. It holds significant value for those with an interest in railway heritage, in particular those who work within the building and for the members of the public who visit the A1 Steam Locomotive Trust and the North Eastern Locomotive Preservation Group during the restoration and construction of steam locomotives. Open days and interpretation boards help maintain a level of communal value. However, this could be further increased through a deeper understanding of the building brought about from additional research as presented within this and other reports, increased public access and improvements to the presentation and interpretation of the Carriage Works and its surroundings.

Setting and Group Value

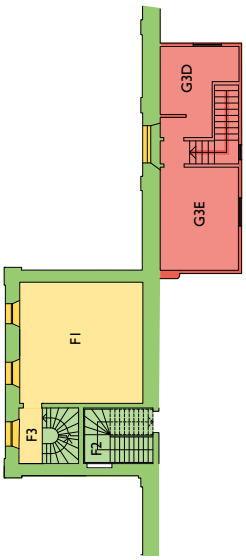
The Works are particularly prominent in long views looking north on Hopetown Lane. The southern end of the building appears considerably lower than the north due to a fall in ground levels and this has the effect of exaggerating its bulk and mass when viewed from the south. This, the recessed arched reveals and the stone boundary wall all help to reinforce its sense of permanence, solidity and impenetrability. The central block, rising a storey higher that the surrounding late 19th century terraced housing is a positive focal point in a range of views, in particular looking east on Farrer Street where it is seen terminating the vista.

The building was originally constructed opposite the Kitching Foundry and it was surrounded by all manner of light industrial and railway buildings and structures. Historic maps and images illustrate the busy environment in which it operated at that time. The loss of surrounding buildings and the laying out of the park has fully exposed the east elevation of the Carriage Works. Its linear form and mass are now highly prominent in views within the conservation area from the north and east where it is seen in the context of the unobstructed low lying park foreground. The trees running along the southern edge of the park are a positive contribution to the site and the wider conservation area, but they impede upon the inter-visibility between the Carriage Works and the main Station buildings to the east.

Ground Floor



First Floor



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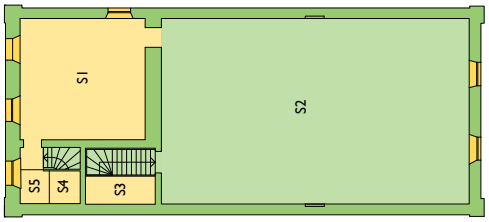

SIGNIFICANCE: KEY

- High
- Medium
- Low
- Neutral
- Intrusive

This plan is not to scale

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Ancestry https://www.ancestry.co.uk/

North Eastern Locomotive Preservation Group (NELPG) Official Website https://www.nelpg.org.uk

ENDNOTES

1 Kitching was a committee member of the S&DR in 1829 and therefore, likely to have been well informed as to the prospects of the North Road site (Archaeo-Environment Ltd, 2013, p.72)

2 S&DR official notice 16th September 1825, as quoted in Holmes, 1975, 12

3 Wall, 2001, 88

4 Wall, 2001, 71

5 Wall, 2001, p68, illustration of an 'Early private railway coach 'The Union'

6 Kichenside, 1964, 5

7 Larkin, 1992, 100

8 'The Darlington Works', *The Northern Echo*, 28 January 1886, 4, says they were built by Messrs Gilkes & Wilson of Middlesbrough and Mr A Kitching of Darlington, the latter presumably of the Kitching Foundry in the North Road triangle

9 *Ibid*

10 Larkin, 1992, 100

11 'To Coach Builders', *York Herald*, Saturday 8th March 1845, 1

12 Wall, 2001, 170

13 Wall, 2001, 92

14 *Ibid*

15 Durham Chronicle, Friday 29th April 1853, 'To Builders', 4

16 Fawcett, 2001, 126

17 Ordnance Survey Town Plan of Darlington surveyed 1854, published 1856, 1: 1,056 and Ordnance Survey County Series 2nd edition, revised 1896, published 1898, 25" (1:2,500)

18 Fawcett 2001, 126

19 Wall, 2001, 105

20 Fawcett, 2001, 126

21 Fawcett, 2001, 126

22 Fawcett, 2001, 28

23 Image collection ref E730009148 “Design for Railway Workshops, 1853” (page 9a of the Richard & Ross design book)

24 From G Potts, A Biographical Guide to Darlington Architects 1840-1914’. Information from Darlington Local Studies Picture Collection series on Flickr: https://www.flickr.com/photos/54196835@N04/collections/72157663043340539/ [last accesse 16th June 2021]

25 Fawcett 2001, 126

26 Grenville *et al*, 2004, 242

27 Grenville *et al*, 2004, 233

28 Grenville *et al* 2004, 240 and 241

29 https://www.ancestry.co.uk/

30 Grenville *et al*, 2004, 234

31 Grenville *et al*, 2004, 234

32 Briden, 2003, 303; Grenville *et al*, 2004, 233; Clark, 2006, 48

33 Grenville *et al*, 2004, 240

34 Grenville *et al*, 2004, 241

35 ‘The Darlington Works’, *The Northern Echo*, 28 January 1886, 4

36 ‘To Carriage Builders’, *Durham Chronicle*, 21st October 1859, 1

37 ‘The Darlington Works’, *The Northern Echo*, 28 January 1886, 4

38 *Ibid*

39 Briden 2003, 305; Grenville et al 2004, 234

40 North Eastern Locomotive Preservation Group (NELPG), ‘Hopetown Carriage Works: History’, https://www.nelpg.org.uk/index.php?option=com_content&view=article&id=37:history&catid=20:hopetown&Itemid=40 [last accessed 30th June 2021]

41 Kichenside, 1964, 8

42 ‘North-Eastern Railway Carriage Works’, *Shields Daily Gazette*, 12 October 1885, 5

43 ‘The Darlington Carriage Works’, *Daily Gazette for Middlesbrough*, 13 March 1886, 3

44 *Ibid*

45 'The Darlington Carriage Works', Daily Gazette for Middlesbrough, 13 March 1886, 3

46 *Ibid*

47 Grenville et al, 2004, 226; North Eastern Locomotive Preservation Group (NELPG), 'Hopetown Carriage Works: History', https://www.nelpg.org.uk/index.php?option=com_content&view=article&id=37:history&catid=20:hopetown&Itemid=40 [last accessed 30th June 2021]

48 North Eastern Locomotive Preservation Group (NELPG), 'Hopetown Carriage Works: History', https://www.nelpg.org.uk/index.php?option=com_content&view=article&id=37:history&catid=20:hopetown&Itemid=40 [last accessed 30th June 2021]

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51 Darlington Railway Quarter: 2025 Masterplan, 47. Available at https://democracy.darlington.gov.uk/documents/s8513/Appendix%202.pdf

52 Fawcett, 2003, 165

53 Batty, 1991, 43-44

54 Minnis, 2016, 22

55 Minnis, 2016, 9

56 Grenville et al 2004, 227

57 *The Northern Echo*, 13 March 1886, 4

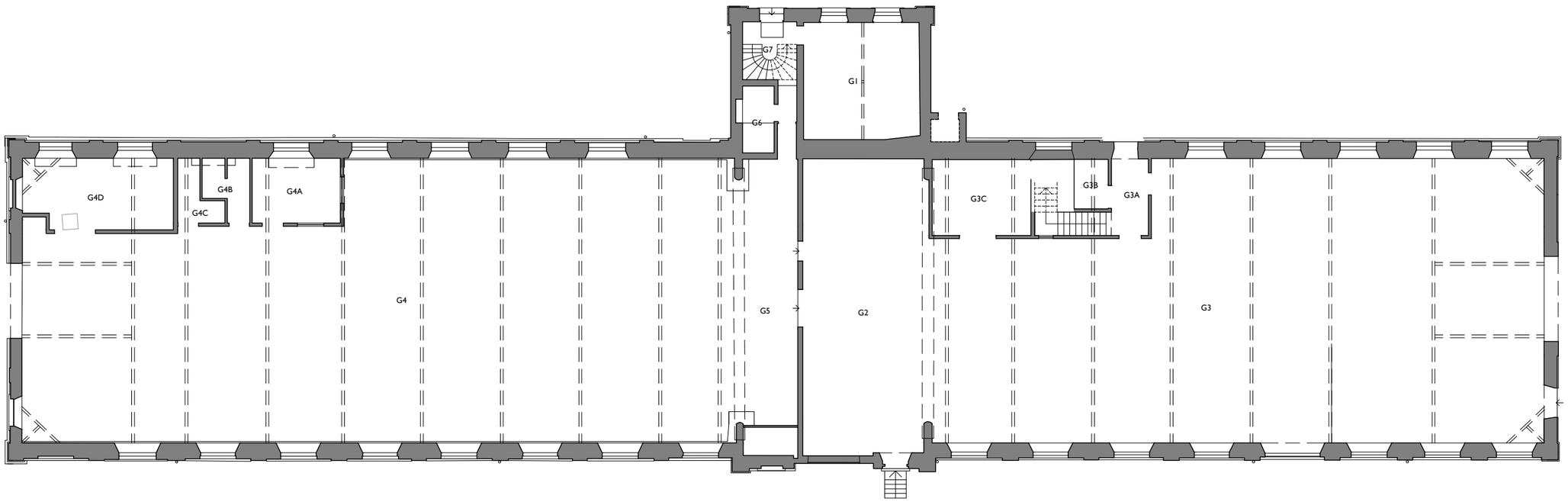
58 Larkin, 1992, 101

59 *Ibid*

60 Fitzgerald, 1990, 185-204

61 Bryan, 2019, 14

APPENDIX A: EXISTING PLANS



1 / 100 Ground Floor Plan as Existing
1:100

0 1 m 2 m 3 m 4 m 5 m 10 m

Notes:

Drawings are based on survey data and may not accurately represent what is physically present.

Do not scale from this drawing. All dimensions are to be verified on site before proceeding with the work.

All dimensions are in millimeters unless noted otherwise.

Purcell shall be notified in writing of any discrepancies.

First Issue 08/05/2019

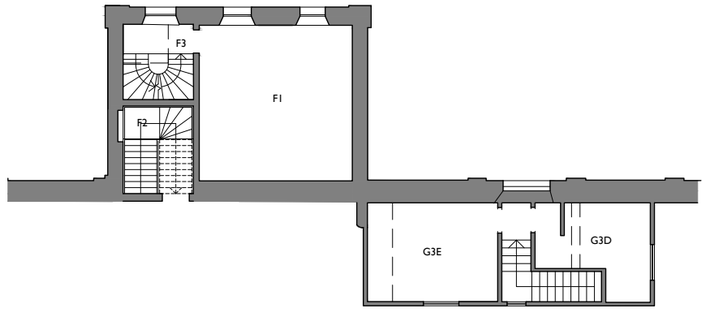
ISSUE	DATE	DRAWN	CHECKED	DESCRIPTION

CLIENT	Historic England	**DRAWING TITLE**	Ground Floor Plan
PROJECT	Carriage Works, Hopetown Lane, Darlington	**SIZE & SCALE**	A1L
100		**DRAWING STATUS**	S0 – Work In Progress

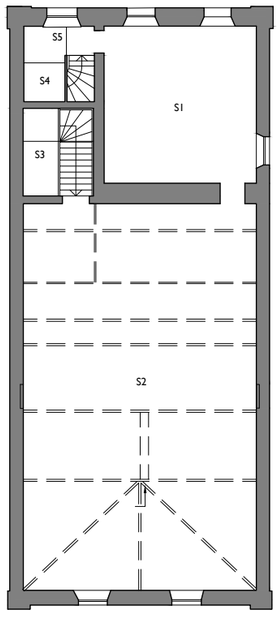
JOB NUMBER	239777
DRAWING NO.	100
REVISION	-

PURCELL

29 Marygate, York, YO30 7WH



1/101 **First Floor Plan as Existing**
1:100



2/101 **Second Floor Plan as Existing**
1:100

0 1 m 2 m 3 m 4 m 5 m 10 m

Notes:

Drawings are based on survey data and may not accurately represent what is physically present.

Do not scale from this drawing. All dimensions are to be verified on site before proceeding with the work.

All dimensions are in millimeters unless noted otherwise.

Purcell shall be notified in writing of any discrepancies.

ISSUE	DATE	DRAWN	CHECKED	DESCRIPTION
First Issue	29/05/2019			

CLIENT	Historic England	**DRAWING TITLE**	First and Second Floor Plans
PROJECT	Carriage Works, Hopetown Lane, Darlington	**SIZE & SCALE**	A1L 1:100
101		**DRAWING STATUS**	S0 – Work In Progress

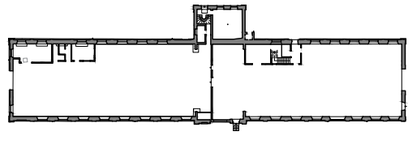
JOB NUMBER 239777
DRAWING NO. 101
REVISION -

PURCELL

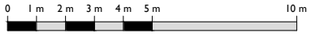
29 Marygate, York, YO30 7WH

1/103 **East Elevation as Existing**
1:100

2/103 **West Elevation as Existing**
1:100



5/103 **Key Plan**
1:500



3/103 **North Elevation as Existing**
1:100

4/103 **South Elevation as Existing**
1:100

Notes:

Drawings are based on survey data and may not accurately represent what is physically present.

Do not scale from this drawing. All dimensions are to be verified on site before proceeding with the work.

All dimensions are in millimeters unless noted otherwise.

Purcell shall be notified in writing of any discrepancies.

ISSUE	DATE	DRAWN	CHECKED	DESCRIPTION
First Issue	23/06/2021			

CLIENT	Historic England
PROJECT	Carriage Works, Hopetown Lane, Darlington
103	

DRAWING TITLE	External Elevations
SIZE & SCALE	A1L 1:100
DRAWING STATUS	S0 – Work In Progress

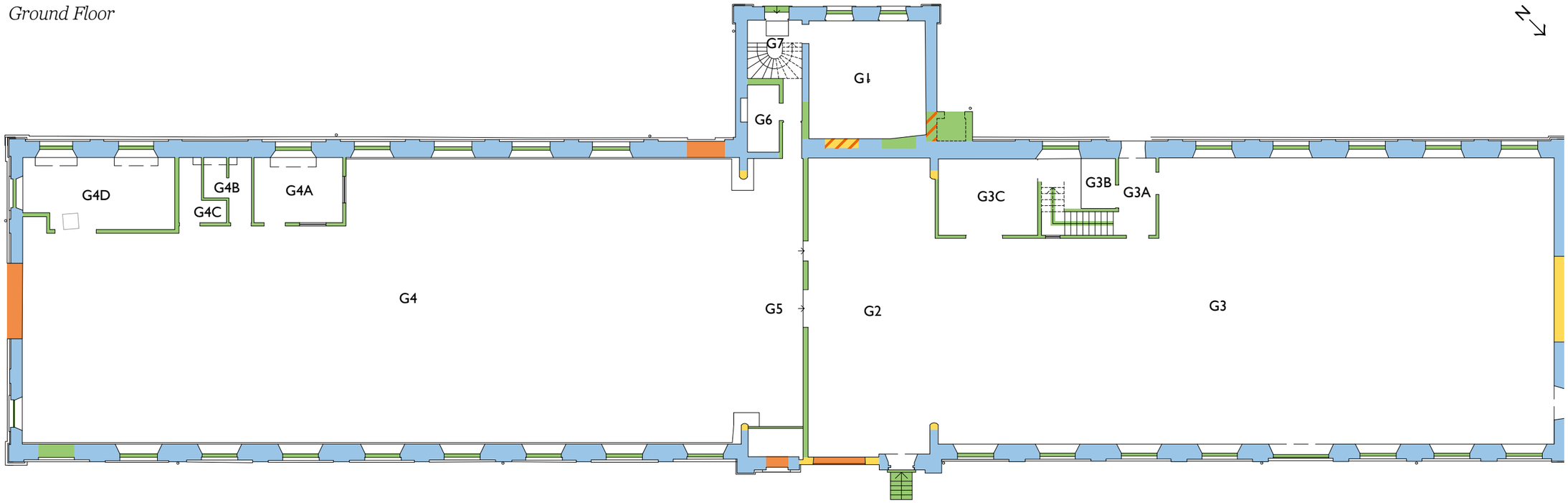
JOB NUMBER	239777
DRAWING NO.	103
REVISION	-

PURCELL

29 Marygate, York, YO30 7WH

APPENDIX B: PHASING PLANS

Ground Floor



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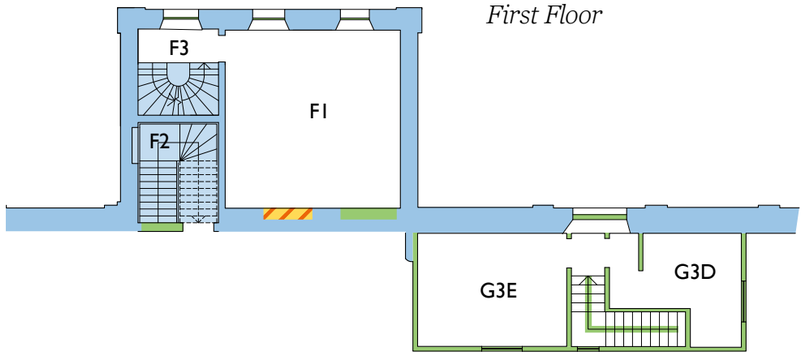

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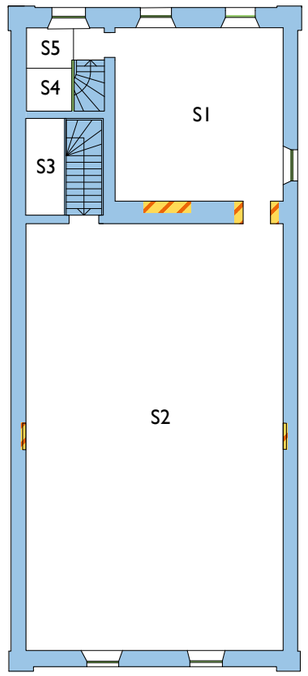
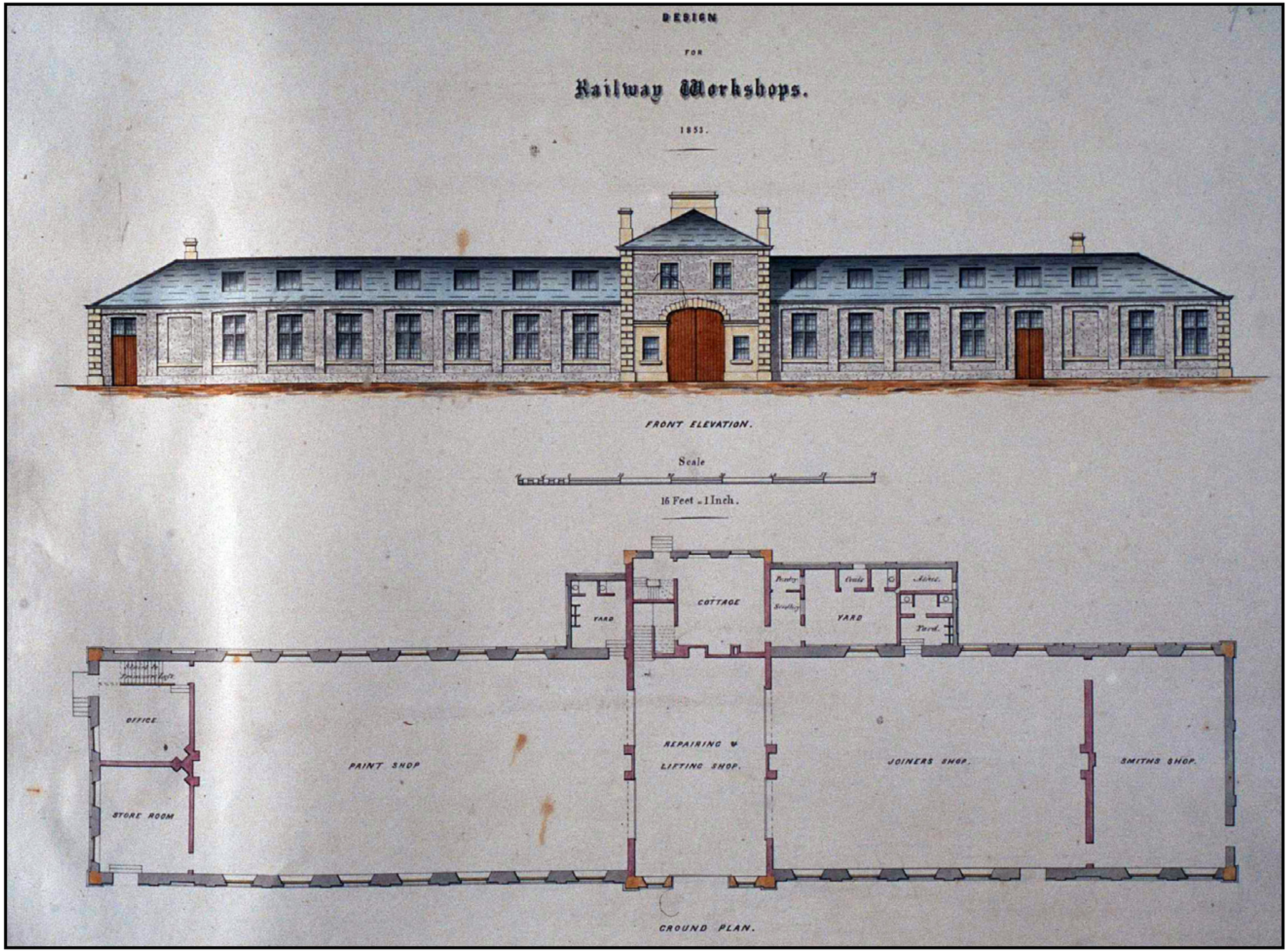


PHASES: KEY

- Phase 1 - 1853: Carriage Works as built
- Phase 2 - Later 19th century: Carriage Works use, alteration and closure
- Phase 3 - 20th century up to 1980s: Reuse and decline
- Phase 4 - 1980s to present: Renewal and restoration

This plan is not to scale

APPENDIX C: DESIGN FOR RAILWAY WORKSHOPS, 1853 TAKEN FROM PAGE 9A OF THE RICHARD & ROSS DESIGN BOOK



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