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# **AN ARCHAEOLOGICAL EVALUATION: OLE ANCHOR POSITIONS, YORK ENGINEERS' TRIANGLE, CINDER LANE, OFF LEEMAN ROAD, YORK RAILWAY STATION, YORK**



# AN ARCHAEOLOGICAL EVALUATION: OLE ANCHOR POSITIONS, YORK ENGINEERS' TRIANGLE

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**An Archaeological Evaluation:  
York Engineers Triangle, Cinder Lane, off Leeman Road,  
York Railway Station, York:**

**National Grid Reference:** SE 59282 51534

**Site Code:** YET 14

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## 1. NON-TECHNICAL SUMMARY

- 1.1 An archaeological evaluation comprising the investigation of a single trench was carried out in December 2014 by Ramboll/Pre-Construct Archaeology Limited (PCA) at the York Engineers' Triangle (YET), a parcel of land within the curtilage of York Railway Station, off Cinder Lane, to the south-west of the main station building. The site is roughly triangular in plan covering c. 2.8ha, centered at National Grid Reference SE 459330 451500. The triangular shape of the site is derived from the very beginnings of the railway infrastructure in the city in the mid-19th century, when the separate lines of the York and North Midland and the Great North of England Railways were connected by a curving link line which bypassed the first railway station in the city. The trial trench was located in the western part of the site at National Grid Reference SE 59456 51730. The archaeological work was commissioned by Network Rail to inform design of foundations for OLE pylons and any associated archaeological mitigation works.
- 1.2 The YET site has been re-developed by Network Rail, with Ramboll partnering BAM Construction in delivery of a scheme which involved extensive new build. The Cultural Heritage and Archaeology Team of Ramboll was responsible for developing and implementing a strategy, in liaison with the City of York Archaeologist, to ensure that all constraints, risks and opportunities in relation to the historic environment were fully considered in the design of the scheme. Some components of the programme of archaeological investigations were undertaken ahead of the submission of the planning application for the re-development, the remainder being undertaken following the granting of planning permission in May 2012. A planning condition required the preparation of an Archaeological Remains Management Plan, a report on all archaeological interventions undertaken at the site and publication of the results. Subsequent to completion of the main construction project, Network Rail engaged Ramboll directly to provide engineering and archaeological advice associated with proposed installation of OLE pylons at the south-eastern end of the test track where a potential clash between proposed foundations and historic buried rail structures had been identified.
- 1.3 With York having been a core location in railway development in the north of England from the mid-19th century and the YET site itself having formed the very heart of the 'York South' depot, it was considered highly likely that the site would contain remains of important elements of industrial era railway infrastructure, most notably a group of mid-19th-century engine sheds depicted on historic mapping within the central portion of the site. The potential for survival of buried remains associated with the rich and important railway heritage of the site therefore represented a key consideration in the design of the main development scheme, and continues to be a factor in the planning of subsequent improvements to the site.
- 1.4 The initial element of the programme of archaeological work comprised a trial trenching evaluation (Phase 1) undertaken December 2011-January 2012. Seven trenches were sited to provide a broad coverage of the site, whilst incorporating areas of the development footprint. Some trenches were also sited specifically to investigate the level of survival of key structures of the York South depot, namely a rectangular 'straight' engine shed, built in 1841 (the 1841 Engine Shed), and three roundhouse engine sheds (Roundhouses 1, 2 and 3 – RH1, RH2 and RH3) built in 1850/51, 1852 and 1863/1864, respectively. While evaluation Phase 1 established that the site had limited potential for prehistoric, Roman, medieval and early post-medieval archaeological remains and palaeoenvironmental remains in general, the work identified exceptionally well-preserved remains of RH2 and RH3, less well-preserved remains of RH1 and some remains of the 1841 Engine Shed.
- 1.5 An extensive programme of archaeological excavation/recording (Phase 1) was undertaken January-March 2012 in order to inform the detailed design of the re-development scheme. The work comprised exposure, hand cleaning and detailed photography and survey of the portions of RH1 and RH2 that lay within the site boundary and approximately two-thirds of the area of RH3.

An octagonal structure at the intersection of RH1 and RH2 was also exposed and recorded during excavation/recording Phase 1.

- 1.6 Evaluation Phase 1 recorded only a small portion of the south-western corner of the 1841 Engine Shed, so that the overall degree of survival of that building was not certain. Therefore, an additional archaeological evaluation (Phase 2) was required for that part of the site in order to further inform the proposed design of the re-development scheme. Evaluation Phase 2, undertaken in May 2012, comprised three trial trenches which targeted the three previously unseen corners of the 1841 Engine Shed. This work established that there was exceptional survival of structural remains at each location investigated.
- 1.7 A second phase of archaeological excavation/recording (Phase 2) was undertaken in July-August 2012 across the western portion of the 1841 Engine Shed. Once the detailed engineering design of the re-development scheme had been finalised, further archaeological excavation/recording (Phase 3) was required ahead of the installation of foundation piles, services and a retaining wall, with this work taking place September-December 2013. Another phase of excavation/recording (Phase 4) was undertaken January-February 2013 in areas of the 1841 Engine Shed and RH3 which lay within the re-development footprint but had been previously inaccessible.
- 1.8 RH3 is an 18-sided polygonal structure measuring c. 52.50m in diameter with 18 stalls, each with an inspection pit, radiating outwards from the central turntable well, which was c. 13.90m in diameter. Approximately 69% of this roundhouse was exposed during the archaeological excavation/recording.
- 1.9 The trench investigated in December 2014 was located in the south-western quadrant of RH3, adjacent to the western limit of the site. A 1.60m length of the exterior brick wall of RH3 was exposed at the north-eastern end of the trench with a small area of robbed-out internal floor located to the east of the wall.

## 2. INTRODUCTION

### 2.1 General Background

- 2.1.1 This report details the methodology and results of an archaeological evaluation undertaken by Pre-Construct Archaeology Limited (PCA) December 2014 on the York Engineers' Triangle (YET) site – within the curtilage of York Railway Station (Figure 1). The site has been developed by Network Rail, with extensive new build occupying the eastern portion of the site and extending into the north-western portion.
- 2.1.2 Ramboll partnered Principal Contractor BAM in delivery of the scheme for Network Rail and liaised closely with the City of York Archaeologist to ensure that all constraints, risks and opportunities in relation to the historic environment are fully considered in the design of the scheme. An interim Heritage Statement (Ramboll 2012a) was prepared in support of the planning application for the re-development and while some components of the programme of archaeological investigations were undertaken ahead of the submission of the planning application for the re-development, the remainder were undertaken following the granting of planning permission in May 2012. More detailed documentary research, cartographic analysis and comparison with other sites, were undertaken for a full Heritage Statement (Ramboll 2012b), but the issue of this document was pre-empted by planning permission being granted. A planning condition required preparation of an Archaeological Remains Management Plan (ARMP) (Ramboll 2012c), a report on all archaeological interventions undertaken at the site and publication of the results.
- 2.1.3 Ramboll/PCA undertook an initial phase (Phase 1) of archaeological evaluation by trial trenching of the YET site in December 2011-January 2012. A Project Design was prepared (Ramboll/PCA

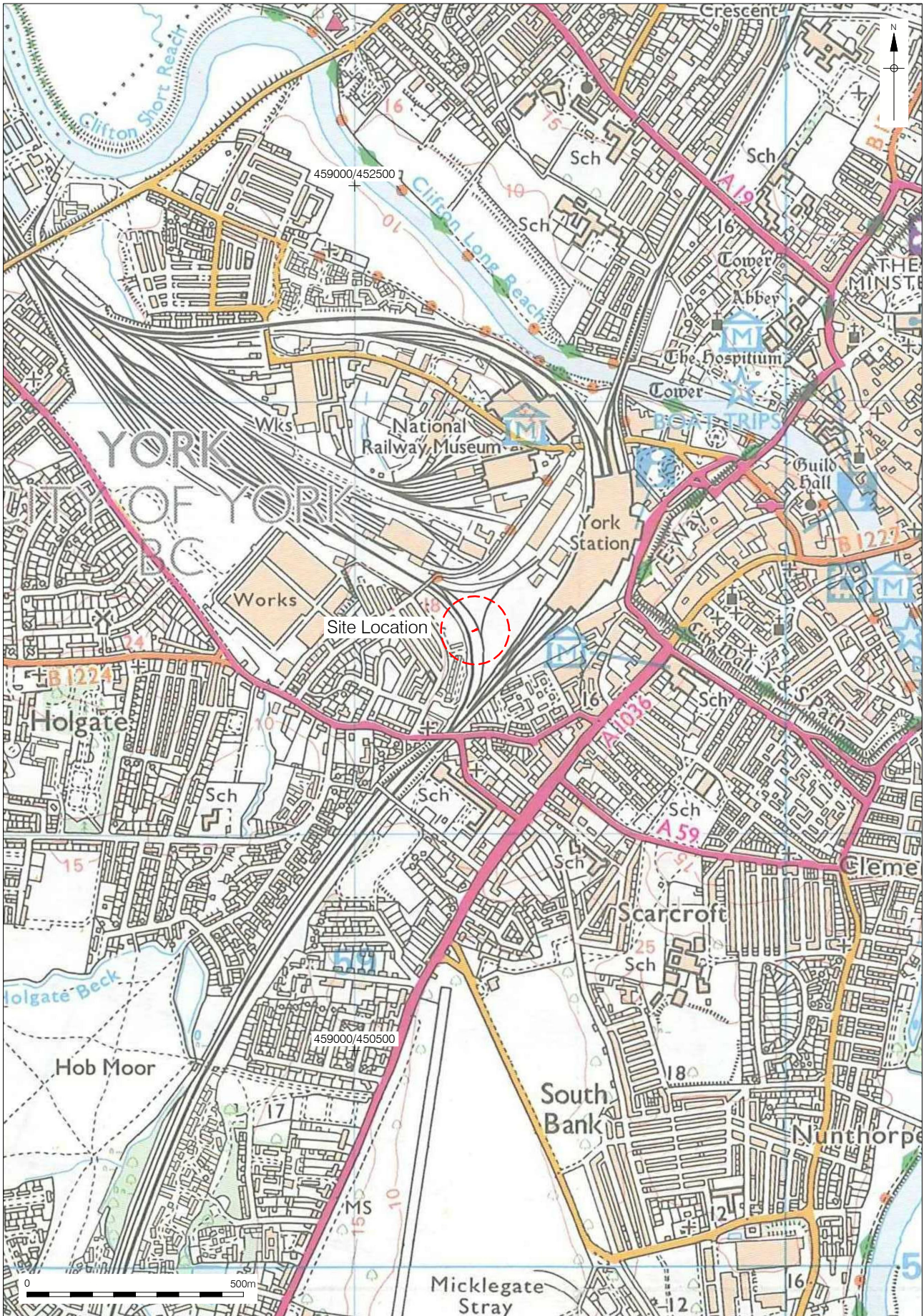
2011) and the work comprised seven machine-excavated trial trenches located either as 'judgment' trenches to assess the general archaeological potential of available parts of the site or to target specific locations of railway structures depicted on historic mapping site. The potential survival of extensive buried remains associated with York's important railway heritage represented a key consideration in the design of the archaeological investigation. Significant below-ground structural elements of three mid-19th-century roundhouse engine sheds, Roundhouses 1, 2 and 3 (RH1, RH2 and RH3) were identified (Ramboll/PCA 2012a). The north-western corner of a rectangular engine 'straight' shed built in 1841 (the 1841 Engine Shed) was also exposed, this the earliest structure to be recorded at the site.

- 2.1.4 A second phase (Phase 2) of evaluation was undertaken in May 2012 to further investigate the extent of survival of the 1841 Engine Shed and thus further inform design of the new build sub-structure. The work comprised three trial trenches targeting the three corners of the building not seen in the earlier work. Again, a Project Design was compiled (Ramboll/PCA 2012b). The work established that sub-surface structural remains of the 1841 Engine Shed survived to an exceptional degree at each location investigated (Ramboll/PCA 2012c).
- 2.1.5 In total, four phases of exposure, excavation and recording (Phases 1-4) of the surviving remains of the main 19th-century railway structures were undertaken at the site. A Project Design was prepared ahead of excavation/recording Phase 1 (Ramboll/PCA 2012d) and updated to reflect the subsequent phases, as appropriate. Excavation/recording Phase 1 – undertaken January-March 2012 – comprised exposure, some excavation and full recording of the easternmost approximately two-thirds of RH3, the majority of RH2 within the site boundary, and the north-westernmost portion of RH1 within the site boundary. Phase 2 – undertaken July-August 2012 – included exposure, some excavation and full recording of the westernmost portion of the 1841 Engine Shed. Phase 3 – undertaken September-December 2013 – consisted of full excavation and recording of structural remains at the locations of invasive elements of the construction programme, specifically foundation piles, services and a retaining wall. Phase 4 – undertaken January-February 2013 – involved exposure, some excavation and full recording of areas of the 1841 Engine Shed and RH3 which lay within the re-development footprint but which had been previously inaccessible.
- 2.1.6 The project as a whole was designed in accordance with the format set out in Management of Research Projects in the Historic Environment (MoRPHE) (English Heritage 2006). A Post-Excavation Assessment Report was produced in 2013 which detailed the results of excavation/recording Phases 1-4, including a 'watching brief' conducted in association with the final two phases, and also incorporated the results of the Phase 2 evaluation (Ramboll/PCA 2013). A paper on the investigation and protection of the archaeological remains, destined for publication in *Industrial Archaeology Review*, is currently in preparation (Emery and Haslam, in prep). Public interest in the archaeological discoveries was attested by the attendance of over 600 people at two open days in April 2012 (Emery and Goode 2012).
- 2.1.7 The current evaluation, commissioned directly by Network Rail, comprised a single evaluation trench located in the south-west segment of RH3. This work was carried out according to the methodologies set out in the project designs for the previous phases of evaluation.
- 2.1.8 The Site Archive for all phases of work is currently held at the Northern Office of PCA and the retained element, comprising the written, drawn and photographic records, as well as the retained artefactual material, will ultimately be deposited with an appropriate repository, likely to be the Yorkshire Museum. The Online Access to the Index of Archaeological Investigations (OASIS) reference number for the project is: preconst1-199528.

## 2.2 Site Location and Description

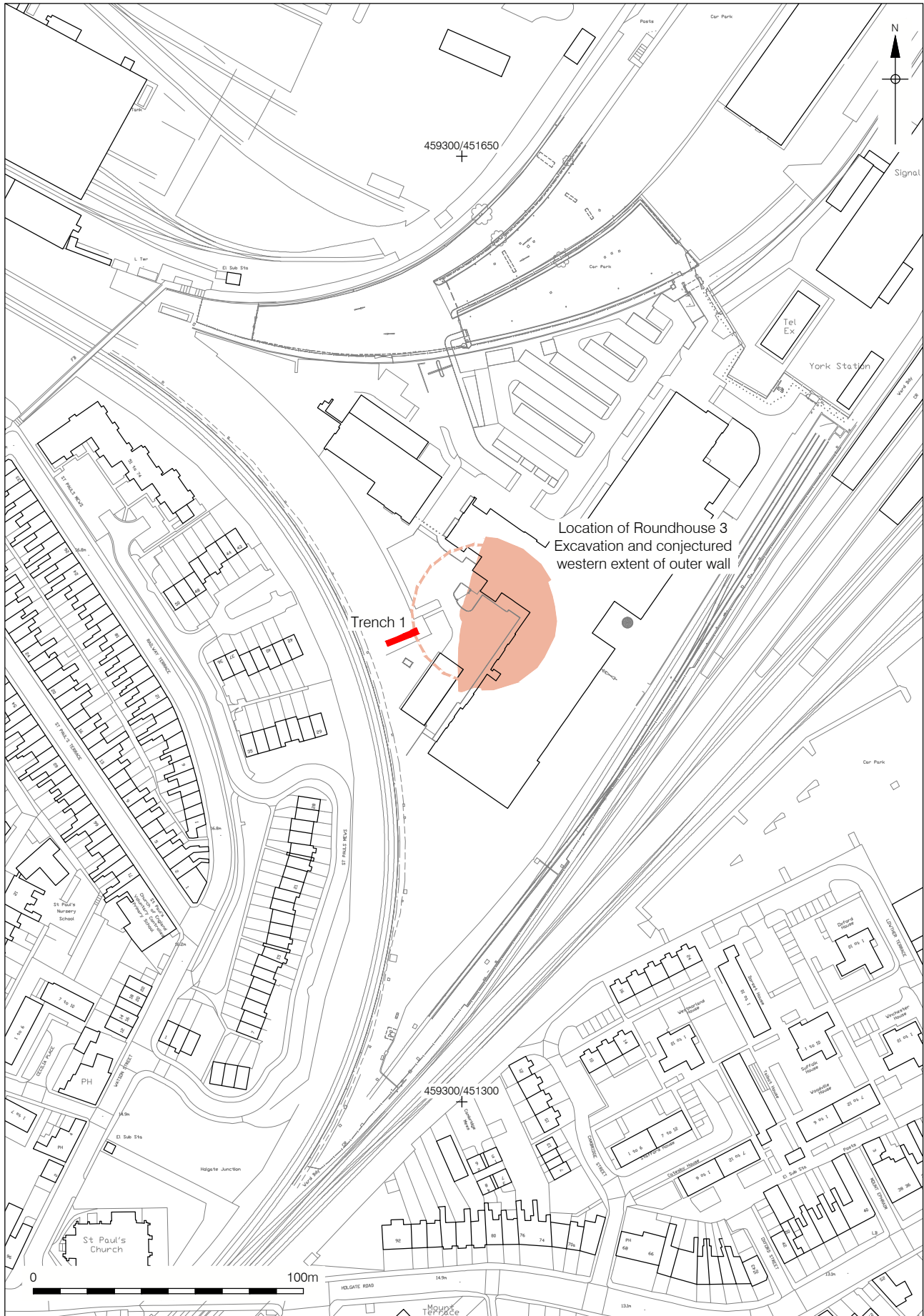
- 2.2.1 The YET site is located to the south-west of York Railway Station, off Cinder Lane, which runs south from Leeman Road. Centered at National Grid Reference SE 459330 451500, the site is roughly triangular and covers c. 2.8ha (Figures 1 and 2).
- 2.2.2 Today the site is bounded to the west/south-west by the modern version of the curving link line at Holgate Junction, beyond which lies a modern housing development, St. Paul's Mews. To the east/south-east it is bounded by the tracks of the East Coast Mainline Railway on the approach from Holgate Junction to the existing station building, built in 1875, while to the north it is bounded mostly by a station car park on Cinder Lane. To the north-east the site is bounded by various station facilities, including a signalling house and telephone exchange.
- 2.2.3 At the time of the present evaluation, the new buildings had been constructed across the areas subject to archaeological exposure, excavation and recording in 2012–2013, including the eastern side of RH3. The evaluation trench was located in the western part of the site, at National Grid Reference SE 59282 51534. At the time of the evaluation, the rail track running south-eastwards from the north-west (east of the curving link line of Holgate Junction), which can be seen on Figure 2, had been extended to the south-east (Plate 1). Trench 1 was situated at the south-eastern terminal of this new track within an area of ballast, immediately beyond the buffer stops (Plate 2).





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Figure 1  
 Site Location  
 1:12,500 at A4



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Figure 2  
 Trench Location  
 1:2,000 at A4

## 2.3 Geology and Topography

- 2.3.1 The solid geology of the area of the YET site comprises sandstone bedrock of the Sherwood Sandstone Group (information from the British Geological Survey website). The site lies to the south of the River Ouse and within its floodplain, in an area where the superficial geology is complex. Devensian Till (boulder clay) is predominant but pockets of glaciofluvial and/or morainic sand and gravel are also known, as well as alluvial material, mostly clay and silt, but also sand and gravel.
- 2.3.2 The YET site is fairly level, with the current ground level at c. 13.0m OD. In the northernmost portion ground level is c. 12.90m OD, in the north-westernmost portion and at the southern end it is c. 12.75m OD, with relatively little variation in ground level across the site.

## 2.4 Planning Background

- 2.4.1 A planning application (reference 12/01176/FULM) for re-development of the YET site was submitted in March 2012 with permission granted in May 2012. On completion, the site was to be occupied by a rail operating centre and workforce development centre. The majority of the new build occupies the eastern portion of the site but also extending into the north-western portion in a roughly T-shaped new build footprint (see Figure 2).
- 2.4.2 Ramboll partnered BAM Construction in delivery of the scheme for Network Rail. From its inception, Ramboll liaised closely with the City of York Archaeologist to ensure that constraints, risks and opportunities in relation to the historic environment were fully considered in the design of the scheme. A Heritage Statement was prepared in support of the planning application and the Phase 1 archaeological evaluation was undertaken to inform the Heritage Statement.
- 2.4.3 The requirement to undertake archaeological investigations at the YET site is in line with planning policy at a national level. The National Planning Policy Framework (NPPF) (Department of Communities and Local Government 2012) came into effect on 27 March 2012, replacing Planning Policy Statement 5: 'Planning for the Historic Environment' (PPS5) (Department of Communities and Local Government 2010). The NPPF requires applicants to provide early consideration of the potential for 'heritage assets' (those parts of the historic environment that have significance because of their historic, archaeological, architectural or artistic interest) on their sites, a description of the significance of those heritage assets and an assessment of the potential impact of the proposed development on the significance of those heritage assets.
- 2.4.4 The requirement for archaeological work at the site is also in accordance with 'Policy HE10 - Archaeology' of the City of York's Draft Local Plan Incorporating the 4th set of changes, Development Control Local Plan (City of York 2005), currently being replaced by a Local Development Framework. The site is located within the City Centre Area of Archaeological Importance (see Appendix D of the Local Plan).
- 2.4.5 With evaluation Phase 1 – undertaken December 2011-January 2012 – having established exceptional survival of some elements of the historic railway structures known to have occupied the site, it was recommended that archaeological recording and excavation tasks that might normally be undertaken as part of a post-planning mitigation stage be brought forward to provide a sound basis for detailed engineering design of the scheme. Therefore, excavation/recording Phase 1 began at the earliest opportunity in late January 2012, ahead of determination of the planning application.
- 2.4.6 Planning permission had a condition (Condition 21) attached relating to archaeology and this required the submission of the aforementioned Archaeological Remains Management Plan (ARMP)

and listed eleven specific aspects which that document should cover. The ARMP, submitted in October 2012, should be consulted for full details, but of particular significance in terms of this report is sub-clause f):

*Full report on all archaeological interventions which shall be produced and deposited with the City of York HER and an appropriate body, approved by the Local Planning Authority, and the results published.*

- 2.4.7 As detailed in Section 2.1, in addition to two phases of archaeological evaluation, four phases of excavation/recording were eventually undertaken to expose, record and undertake limited excavation of, as required, the historic structures at the site. Excavation/recording Phase 3 comprised enabling works entailing dismantling of structural remains in specific locations where impact on historic structures by construction groundworks was unavoidable, with this component of the work therefore serving to mitigate the impact of destructive elements of the scheme on the structures.
- 2.4.8 The current trial trench was excavated to evaluate the survival of buried remains of Roundhouse 3 at the proposed location of OLE anchors for the test track, thereby informing design of these foundations and any associated archaeological mitigation works. The work was carried out in accordance with the methodologies outlined in the Project Designs for the previous phases of evaluation.

## 2.5 Archaeological and Historical Background

- 2.5.1 A DBA undertaken in 2005 concluded that the YET site was located within an area of overall 'moderate' archaeological potential (ASDU 2005). Evaluation Phase 1 undertaken by Ramboll/PCA in 2011-12 did not record any prehistoric, Roman, medieval or pre-industrial post-medieval archaeological deposits (although residual artefactual material of Roman date was recovered). With the focus of the investigations herein described being the 19th-century railway structures, the background to earlier archaeological eras has been omitted from this report – the report on evaluation Phase 1 should be consulted for further details.
- 2.5.2 York was, and remains, the epicentre of the railway system in the North of England, forming a hub for lines travelling in all directions. Driven chiefly by Yorkshire's own 'Railway King', George Hudson, the railways first arrived in York in 1839 with the construction of the York and North Midland Railway (YNMR) to Normanton and Leeds. This was soon joined by the Great North of England Railway (GNER) to Darlington, and the two planned a joint station, duly constructed in 1841 inside the city walls, adjacent to Tanner Row. As previously mentioned, the triangular form of the YET site arose when the separate lines of YNMR and the GNER were connected by a link line – the North Junction–Holgate Bridge Junction curve – which bypassed the original station (replaced in 1875 by the current building). The YET site thus became the key component of the 'York South' depot.
- 2.5.3 When the first services operated by the GNER reached York in 1850, there were already several locomotive sheds in place at York South. One of these was a three road straight/rectangular shed completed in 1841 for the GNER. RH1, the first of the circular roundhouses, was constructed in 1850/51. This was followed by RH2, an identical building, in 1852. Both were probably designed by YNMR chief engineer Thomas Cabry (Fawcett 2001, 108).
- 2.5.4 RH3 was designed by Thomas Prosser, NER architect 1854-74, and was built in 1863-64. Contemporary design plans show a polygonal structure, slightly larger than RH2 and RH3, with 18 sides, constructed in terracotta-coloured brick with 18 roads radiating from a 45ft (c. 13.70m) turntable. As designed, the base of the turntable pit was concrete with retaining walls built in terracotta brick with sandstone coping. The ground level floor of the shed comprised stone

cobbles and the inspection pit stairs were of terracotta-coloured brick. There were four internal chimney stacks placed symmetrically; two on the north and two on the south side of the building.

- 2.5.5 Externally, RH3 was architecturally distinct from the two earlier roundhouses on the site and more decorative in character. Each of the enclosed 18 bays had a separate gable end with decorative brickwork in the classical style. Most had three-arched iron-framed windows, above which a string course acted as the base of a pediment, reminiscent of a classical temple, within which was a semi-circular opening. The main entrances for rail traffic were square, with classical style 'columns' in brick either side. Between each gable the wall was recessed, thereby emphasising the gable.

### 3. PROJECT AIMS AND RESEARCH OBJECTIVES

- 3.1 The principal aim of the archaeological evaluation was to determine the location, date, extent, character, condition and quality of any archaeological remains on the site, to assess the significance of any such remains in a local, regional, or national context, as appropriate, and to assess the potential impact of the development proposals on the archaeology of the site.
- 3.2 A specific aim was to identify the precise location and condition of structural remains of Roundhouse 3, the south-western quadrant of which is known from cartographic evidence to have been located in this area.

The general aims of the project were:

- to identify and record any archaeological deposits, structures or built fabric within the site;
- to determine the extent, condition, character, significance and date of any encountered or exposed archaeological remains;
- to record accurately the location and stratigraphy of areas excavated during groundworks;
- to recover artefacts disturbed by the site works;
- to prepare a comprehensive record and report of archaeological observations during the site work.

### 4. ARCHAEOLOGICAL METHODOLOGY

#### 4.1 Fieldwork

- 4.1.1 The evaluation was undertaken 15–17 December 2014. (Additional site visits, to inspect masonry exposed in a foundation pit at the other end of the test track and to monitor the reopening of the December 2014 evaluation trench to enable engineers' ground investigations, took place on 15 and 17 April 2015 respectively). The work was undertaken in compliance with the relevant guidance document of the Chartered Institute for Archaeologists (CIfA) (IfA 2008a); PCA is a CIfA-Registered Organisation.

- 4.1.2 A single evaluation 2m-wide trench was investigated; due to constraints including potentially live services, the newly constructed rail track and the fact that the area around the site was in use, the maximum length to which the trench could be excavated was 11.90m. Ground reduction was carried out under archaeological supervision using a 1.5-tonne mechanical excavator fitted with a 0.50m-wide toothless ditching bucket. At the north-east end of the trench ballast, other modern overburden associated with the recently constructed rail tracks and a made ground deposit were removed to the depth of structural remains of Roundhouse 3, at a depth of c. 1m below present ground level. Elsewhere the modern overburden and made ground were reduced to a maximum depth of 1.54m. It was not possible to excavate the full depth of overburden due to health and safety considerations and the trench was immediately backfilled to a depth of 1.20m due to the instability of the exposed deposits.
- 4.1.3 Structures and deposits were examined, hand cleaned and recorded to an appropriate level and in accordance with the methodology set out in Fieldwork Induction Manual, Operations Manual I (PCA 2009) and Archaeological Site Manual, Third Edition (Museum of London 1994). High-resolution digital photographs were taken at all stages of the evaluation process.
- 4.1.4 The limits of the trench, heights above Ordnance Datum (m OD) and the locations of archaeological features were recorded using a Leica 1200 GPS rover unit with RTK differential correction, giving three-dimensional accuracy of 20mm or better.

#### 4.2 **Post-excavation**

- 4.2.1 The stratigraphic data for the project comprises written, drawn and photographic records. A total of 10 archaeological contexts were defined. Post-excavation work involved checking and collating site records. A written summary of the findings was then compiled, as described in Section 5.
- 4.2.2 No suitable archaeological deposits were encountered to warrant the recovery of bulk samples for palaeoenvironmental material.
- 4.2.3 The complete Site Archive will be packaged for long-term curation. In preparing the Site Archive for deposition, all relevant standards and guidelines documents referenced in the Archaeological Archives Forum guidelines document (Brown, 2007) will be adhered to, in particular a well-established United Kingdom Institute for Conservation (UKIC) document (Walker, UKIC, 1990) and a more recent IfA publication (IfA 2008b). The depositional requirements of the receiving body, in this case Yorkshire Museum, will be fulfilled.

## 5. **RESULTS: THE ARCHAEOLOGICAL SEQUENCE**

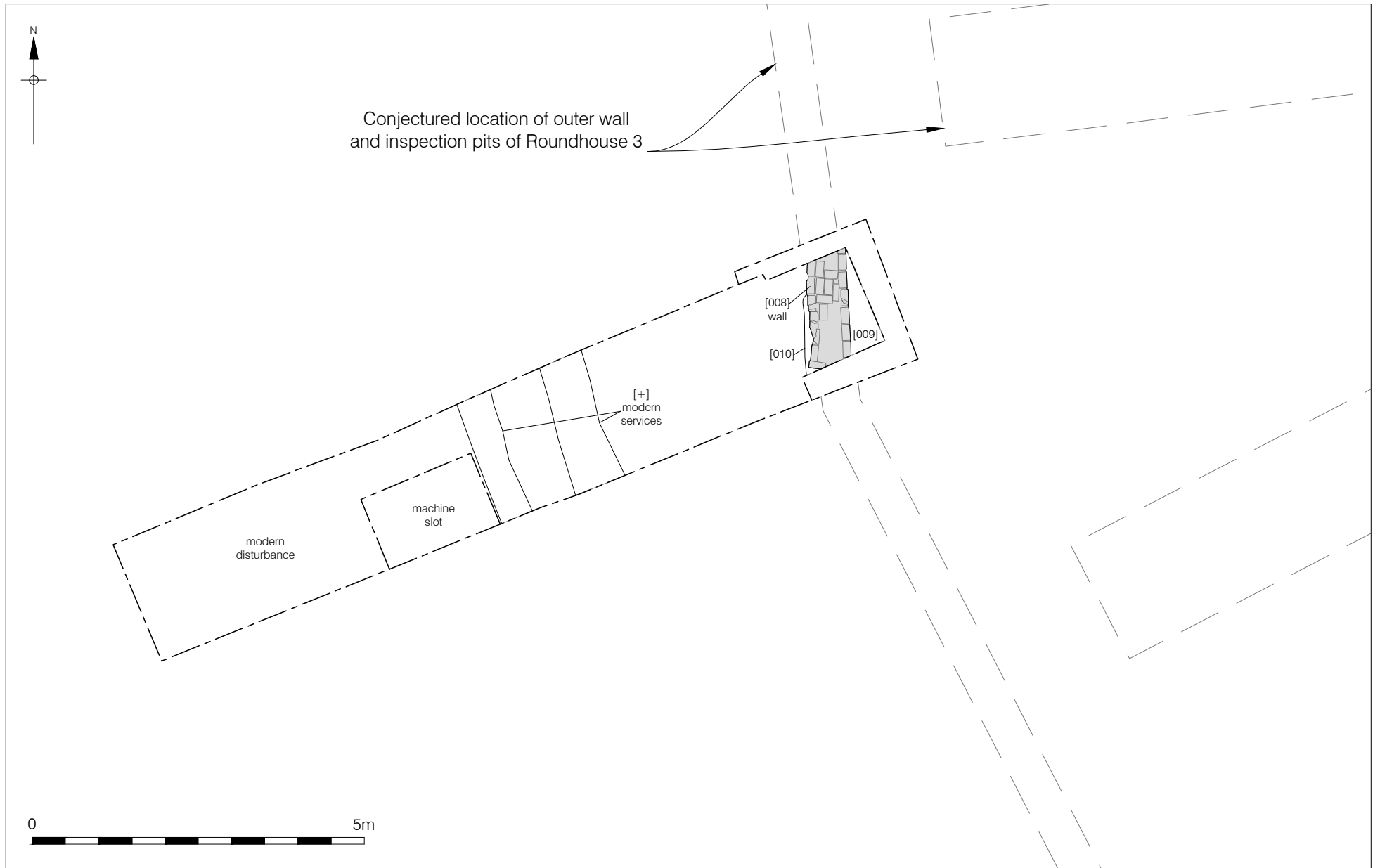
*During the evaluation, separate stratigraphic entities were assigned unique and individual 'context' numbers, which are indicated in the following text as, for example [123].*

- 5.1 The trench is described below, with technical data tabulated. The exterior wall of a railway roundhouse was exposed in the north-eastern end of the trench; this comprises part of the south-western segment of Roundhouse 3, a large portion of which was recorded in previous phases of archaeological work at the site. A number of modern services, made ground deposits and modern overburden were also encountered within the trench.

- 5.2 A 0.62m wide north-south aligned wall [008] (Plate 3; Figure 3) was located at the north-eastern end of the trench, truncated horizontally by modern activity, at a depth of 0.96m below present ground level. It was recorded for a distance of 1.60m, continuing beyond the limits of the trench, and was exposed for a height of 60mm. A single course of red bricks, each measuring 240mm long, 120mm wide and 60mm high, was exposed. This had been placed on bed and bonded with a pale greyish white sandy mortar, which had common chalk inclusions.
- 5.3 The wall was built within a vertical-sided construction cut [010] (Figure 3), which was exposed for a maximum length of 1m, width of 0.20m and depth of 0.24m. It had a single fill of orange-brown silt clay [011]. No finds were present in this feature.
- 5.4 A 60mm-thick robbed out floor surface [009] (Plate 3; Figure 3) was exposed for a distance of 1.56m by 0.56m immediately to the east of wall [008], extending beyond the edges of the trench. This comprised a compact yellowish grey sandy mortar, with chalk flecks.
- 5.5 The structural remains were overlain by a 0.18m thick deposit of made ground [005], which in turn was overlain by hardcore [003], gravel [002] and ballast [001] associated with the newly laid tracks.

<b>TRENCH 1</b>	<b>Figures 2-3</b>		<b>Plate 2</b>		
Trench Alignment: NE-SW	Length: 11.90m	Maximum depth of trench: 1.54m			
<b>Deposit</b>	<b>Context No.</b>	<b>Average Depth (m)</b>			
		<b>S. 1</b>	<b>S. 2</b>	<b>S. 3</b>	
Ballast	(001)	0.26m	0.3m	0.24m	
Gravel deposit	(002)	0.32m	0.22m	0.26m	
Hardcore	(003)	0.2m	0.32m	0.3m	
Made ground	(004)	0.08m	-	-	
Made ground	(005)	0.18m	0.42m	0.16m	
Made ground	(006)	0.24m	0.08m	-	
Made ground	(007)	-	0.2m	-	
<b>Summary</b>					
Trench 1 was located close to the southern boundary of the site. The trench contained a construction cut, wall and robbed-out floor surface comprising structural remains within the south-western segment of Roundhouse 3. Deposits of modern made ground and services were also encountered within the trench.					

- 5.6 The remains observed in the foundation trench at the other end of the test track on 15 April 2015 comprised three courses of brickwork topped by a single course of York-stone, only 400mm or so being exposed by this excavation. This masonry seemed to form part of a minor railway-related structure such as a bunker or similar.





## 6. DISCUSSION

- 6.1 The truncated remains of part of the external brick wall of the south-western segment of Roundhouse 3 were recorded at the north-eastern end of Trench 1 at a depth of c. 1m below present ground level. This roundhouse was designed by Thomas Prosser and was built in 1863-64. Contemporary design plans show a polygonal structure, with 18 sides, constructed in terracotta-coloured brick with 18 roads radiating from a 45ft (c. 13.70m) turntable. As designed, the base of the turntable pit was concrete with retaining walls built in terracotta brick with sandstone coping. The ground level floor of the shed comprised stone cobbles and the inspection pit stairs were of terracotta-coloured brick. There were four internal chimney stacks placed symmetrically; two on the north and two on the south side of the building. Externally, Roundhouse 3 was architecturally distinct from the two earlier roundhouses on the site and more decorative in character. Each of the enclosed 18 bays had a separate gable end with decorative brickwork in the classical style. Most had three-arched iron-framed windows, above which a string course acted as the base of a pediment, reminiscent of a classical temple, within which was a semi-circular opening. The main entrances for rail traffic were square, with classical style 'columns' in brick either side. Between each gable the wall was recessed, thereby emphasising the gable.
- 6.2 Nearly 70% of Roundhouse 3 was exposed and recorded during the main phases of archaeological work at the site in 2012–2013; part of the western side was not investigated (see Figure 2). The floor plan comprised an 18-sided polygonal structure measuring c. 52.50m in diameter with 18 stalls, each with an inspection pit, radiating outwards from the central turntable well, which was c. 13.90m in diameter. Parts of 12 sides of the perimeter wall the roundhouse were exposed within the limit of investigation, with each segment measuring 4.50m externally and 4.30m internally. A narrow construction cut was recorded on the external side of the wall foundation. The external wall had a c. 0.23m thick concrete slab foundation upon which the brickwork had been laid, using red bricks (230mm x 110mm x 80mm) bonded with lime mortar. A sample excavation across the wall revealed that the wall survived to nine courses high (c. 0.90m). The upper portion of the wall was up to c. 0.75m wide and the internal elevation had been constructed with a stepped footing, with the lower three courses up to c. 0.85m wide.
- 6.3 Sample excavation within Roundhouse 3 revealed that that once the external walls, turntable and inspection pits of the building had been constructed, the remainder of the footprint of the building where ground level had been reduced was infilled with various ground raising deposits. The floor surface within each wedge-shaped area between the inspection pits predominantly comprised rectangular granite setts (up to 630mm x 170mm) laid in rows perpendicular to the corresponding inspection pits. Repairs to the surface comprised areas of brick, concrete and timber boarding. The floor surface within the evaluation trench had evidently been robbed with materials presumably removed for use elsewhere.

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## 8. ACKNOWLEDGEMENTS AND CREDITS

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The curatorial role of John Oxley, the City of York Archaeologist, is acknowledged.

### **PCA Credits**

*Project Manager: Paul G. Johnson*

*Post-excavation Manager: Jenny Proctor*

*Fieldwork: Matt Jones*

*Report: Matt Jones, Jenny Proctor and Phil Emery*

*CAD: Mark Roughley*



**Plate 1: General site location before excavation of Trench 1, looking south**



**Plate 2: Trench 1, including two modern services, looking south-west (scales 2 x 1m)**



Plate 3 Trench 1, wall [8] with robbed-out floor surface [9] to east, looking south (scale 1m)

## **APPENDIX 1: OASIS REPORT FORM**

# OASIS DATA COLLECTION FORM: England

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## Printable version

**OASIS ID: preconst1-199528**

### Project details

Project name	Land at York Engineers Triangle, York Railway Station, York
Short description of the project	This report describes the results of a single archaeological trial trench evaluation carried out by Pre-Construct Archaeology on Land at York Engineers Triangle (NGR SE 59456 51730) between the 15th and the 17th December 2014. The evaluation identified a segment of exterior wall, 1.6m in length, of a roundhouse constructed by Thomas Prosser in 1864. This roundhouse consisted of an 18-sided polygon design, with a central turntable and radiating stalls with associated inspection pits. These roundhouses were used to store, maintain, clean and repair railway locomotives. The principal result of the evaluation was the recording of the 1864 roundhouse wall segment [008]. The findings are in keeping with the results of previous excavations in York Engineers Triangle.
Project dates	Start: 15-12-2014 End: 17-04-2015
Previous/future work	Yes / Not known
Any associated project reference codes	YET14 - Sitecode
Any associated project reference codes	preconst1-119258 - OASIS form ID
Any associated project reference codes	preconst1-130097 - OASIS form ID
Any associated project reference codes	preconst1-154167 - OASIS form ID
Type of project	Field evaluation
Site status	None
Current Land use	Transport and Utilities 2 - Other transport infrastructure
Monument type	WALL Post Medieval
Significant Finds	NONE None
Methods & techniques	"Sample Trenches","Targeted Trenches"
Development type	Rail links/railway-related infrastructure (including Channel Tunnel)
Prompt	National Planning Policy Framework - NPPF
Position in the planning process	Not known / Not recorded

### Project location

Country	England
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Site location NORTH YORKSHIRE YORK YORK Land at York Engineers Triangle 2, Cinder Lane, off Leeman Road, York Railway Station, York

Postcode YO26 4ZD

Study area 0 Hectares

Site coordinates SE 59282 51534 53.95629895257 -1.096462585627 53 57 22 N 001 05 47 W Point

### Project creators

Name of Organisation Pre-Construct Archaeology Ltd

Project brief originator none

Project design originator N/A

Project director/manager Paul G Johnson

Project supervisor Matthew Jones

### Project archives

Physical Archive Exists? No

Digital Archive recipient Yorkshire Museum

Digital Contents "Stratigraphic"

Digital Media available "Images raster / digital photography"

Paper Archive recipient Yorkshire Museum

Paper Contents "Stratigraphic", "Survey"

Paper Media available "Context sheet", "Matrices", "Photograph", "Plan", "Section", "Survey "

### Project bibliography 1

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