TEESWORKS

DORMAN POINT ENVIRONMENTAL STATEMENT

VOLUME 3: TECHNICAL APPENDICES
APPENDICES TO CHAPTER K (BELOW GROUND HERITAGE)

DECEMBER 2020

Dorman Point, South Tees
Volume 3: Appendices

Chapter K: Below Ground Heritage

December 2020

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Appendix K1: Desk-Based Heritage Assessment

Dorman Point, Redcar

Desk-Based Heritage Assessment

Client: South Tees Development Corporation

Local Planning Authority: Redcar & Cleveland
Planning Reference: TBC
NGR: NZ 5464 2130

Date of Report: December 2020
Author: Nansi Rosenberg
Report No.: STDC02-01

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Every effort has been made to ensure the accuracy of reporting and appropriateness of recommendations. This report is based on information available at the time of writing, from the sources cited. It does not preclude the potential for future discoveries to be made, or for other unidentified sources of information to exist that alter the potential for archaeological impact. Any opinions expressed within this document reflect the honest opinion of Prospect Archaeology. However, the final decision on the need for further work rests with the relevant planning authority.

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Executive Summary

A planning application is being submitted for redevelopment of the site of the former Cleveland Steel Works, Redcar. Prospect Archaeology Ltd has prepared a desk-based heritage assessment report on behalf of South Tees Development Corporation to accompany this planning application.

This report has been prepared to consider the archaeological and historical implications of the proposed development in support of the planning application. A map regression exercise and documentary search have provided background information about the history of the site. In addition, a site visit was made to assess existing ground conditions and archaeological potential.

There are 3 designated heritage assets within the search area, all of them Grade II listed buildings. None of these assets would be directly or indirectly affected by the proposed development.

Undesignated heritage assets within the Site include the remains of the Eston Iron Works, the upstanding remains of some of the Cleveland Iron and Steel Works' blast furnaces, the open hearths of the Cleveland Iron and Steel Works and other related archaeology. The history of this industrial works is well documented and it is unlikely that any pre-industrial archaeology would survive due to the massive impact of the continued use of the site for steel production into the 21st century. The 19th century iron and steelworks archaeological remains are of regional significance.

A programme of monitoring during SI works is recommended to identify heritage assets that survive within the Site and, if present, to allow a strategy of recording, analysis and publication to be undertaken. This is in addition to the cleaning and recording of the blast furnace bases. This is in accordance with the National Planning Policy Framework and Redcar & Cleveland Local Plan (Policy HE3).

1.0 Introduction

1.1.1 Prospect Archaeology Ltd has been appointed by the South Tees Development Corporation (STDC) to prepare a heritage assessment to assess the cultural heritage impact of the proposed redevelopment at the former Cleveland Steel Works, Redcar. A planning application is being submitted for engineering operations associated with ground remediation and preparation, including removal of former railway embankment and works to Holme Beck and Knitting Wife Beck. An outline planning application has been made for the construction of an Energy Recovery Facility and associated development in the north-west of the Site, this and the wider Prairie site is the subject of this application. This report considers the known and suspected archaeological remains lying within and adjacent to the proposed development.

2.0 Site Description

2.1.1 The site is an irregular parcel of land measuring c. 52.5ha to the south of the Tees Estuary. It is centred on NGR NZ 5464 2130, lying between Tees Dock Road to the east and John Boyle Road / Eston Road to the west. The southern boundary is marked by the Torpedo Repair Shop; the Tees Valley Railway marks the northern boundary of the Site.

2.1.2 The Site has been used for the iron and steel industries and has recently been largely cleared of buildings and structures.

3.0 Geology and Topography

3.1.1 The Site is largely level at c. 9-10m AOD. The Site has been largely cleared of structures. A number of partial pipes and occasional buildings survive, most notably adjacent to the northern boundary where the subway to the north side of the Tees Valley Railway continues to carry pipework.

3.1.2 Underlying geology is Devensian Glaciolacustrine Deposits of clay and silt overlying the Mercia Mudstone bedrock (http://mapapps.bgs.ac.uk/geologyofbritain3d/).

4.0 Assessment Methodology and Significance Criteria

4.1 Buried Heritage

4.1.1 The buried heritage (archaeology) has been considered through desk-based assessment and a site visit. A full list of referenced sources is provided and references are given. Staff at Redcar & Cleveland Council gave advice and information about known archaeological sites of interest in the vicinity of the study area, and where relevant, these were further investigated. It was not possible to view original archive material due to the Covid-19 health and safety restrictions. Additional sources consulted included:

- information available on a variety of internet sites including, The National Archives (http://discovery.nationalarchives.gov.uk/) and the Archaeology Data Service (http://ads.ahds.ac.uk/); the Heritage Gateway (www.heritagegateway.org.uk); and data from Pastscape (www.pastscape.org.uk) as well as the National Archives Discovery Catalogue. A full list of sites accessed can be found in the Bibliography section;

- cartographic sources held by the Ordnance Survey and Promap (www.promap.co.uk);

- A site visit was undertaken by Nansi Rosenberg on 10th June 2020 and by Aaron Goode on 3rd November 2020.

4.1.2 The historical development of the site has been established through reference to these sources and is described in the Baseline Conditions section of this report. This has been used to identify areas of potential archaeological interest. Each area of archaeological potential has been

assessed for its archaeological significance in geographical terms, although it should be noted that despite the national policy guidance's reliance on geographical significance, there is no statutory definition for these classifications:

- International – cultural properties in the World Heritage List, as defined in the operational guidelines for the implementation of the World Heritage Convention;
- National – sites or monuments of sufficient archaeological/historical merit to be designated as Scheduled Ancient Monuments. Other sites or monuments may also be considered of national importance but not appropriate for scheduling due to current use(s) or because they have not yet been fully assessed;
- Regional – sites and monuments of archaeological or historical merit that are well preserved or good examples of regional types or that have an increased value due to their group associations, regional rarity or historical associations.
- Local – sites and monuments of archaeological or historical interest but that are truncated or isolated from their original context and are of limited use in furthering archaeological or historical knowledge.
- Negligible – areas of extremely limited or no archaeological or historic interest. These commonly include areas of major modern disturbance such as quarries, deep basements etc.

4.1.3 The concluding chapter of this document summarises the findings and provides an opinion on the potential for archaeological remains to be identified, the likely importance of such remains should they exist and the likely impact of the proposed development. Recommendations for further work are provided.

5.0 Baseline Conditions

5.1.1 There are three designations within the study area (see Table 1, Figure 1), although none within the site itself. All three assets lie within the settlement of South Bank and date to the 19th and 20th centuries. None would be directly affected by the proposed development and the site does not contribute to a significant setting for any of the buildings.

Table 1 Designated heritage assets within 1km of the Site

NHL ref no.	Name / description	Designation	Distance from Site
1160408	Baptist Church	LB II*	848m
1329634	War Memorial	LB II	930m
1329635	Church of St John the Evangelist	LB II	820m

5.2 Undesignated Heritage Assets

5.2.1 A study area of 1km around the site has been identified for assessment. This allows judgements to be made on the potential for as yet unknown heritage assets to exist within the site. This is a particular requirement for remains dating to those periods for which surveys and mapping are not available, i.e. Prehistoric – early Post-medieval periods. Heritage assets as identified in the HER are listed in table 2 and shown on Figure K.1. Those falling within the site are marked in bold.

Table 2 Undesignated Heritage Assets within 1km of the site

HER no.	Name / description	Date / Period
810	King George's Square War Memorial (NHL 1329634)	c. 1920
1253	Baptist Church Redcar Road East (NHL 1160408)	1905
1831	**Cleveland Ironworks, 2 surviving Bessemer blast furnaces**	**20th C**
3633	Imperial Brickworks	19th century
4358	Eston Junction Railway Station	19th century
4360	**Eston Grange (Grangetown) Railway Station**	**19th century**
4782	Grangetown Signal Box	20th century
4880	Low Grange Farm Pillbox	WWII
5234	South Bank Asda Commemorative Monument	19th century
5341	Cargo Fleet Offices	20th century
5602	Normanby Jetty to South Gare	19th century
5608	Clay Lane Jetty	19th century
5612	Eston Jetty	19th century
5615	Tees Tilery	19th century
5618	Clay Lane Slag Works	19th century
5619	Clay Lane Iron Works	19th century
5620	Clay Lane Oron Works Tramway	19th century
5621	South Bank & Normanby Brickworks	19th century
5624	Antonien Works (Phosphate Manure)	19th century
5625	South Bank Iron Works	19th century
5626	**Eston Branch Railway**	**19th century**
5627	Furnace Row, terrace houses	19th century
5628	Gas Works	19th century
5629	**Cleveland Iron Works**	**19th century**
5630	Church of St John the Evangelist (NHL 1329635)	1893-95
5631	**Eston Iron Works**	**19th century**
5632	Spoil Ground	19th century
5633	**Cleveland Steel Works**	**19th century**
5646	**Old Clay Pits**	**19th century**
5647	Lackenby Station	19th century

5649	Brick Field	19th century
5652	Un-named Spoil Ground	19th century
5653	Brick Yard	19th century
5654	Annealed Concrete Works	19th century
5658	Reservoir	19th century
5659	Lackenby Iron Works	19th century
5908	North East Railway (Darlington Section)	19th century
6153	Low Grange Farm, Eston - farmstead	19th century
6297	94-100 Normanby Road (co-op)	20th century
6298	Normanby Road Methodists Church	19th century
6299	Princess Alice Public House, Normanby Road	19th century
6300	South Bank Workmens' Institute	20th century
6301	The Commercial Public House, Normanby Road	19th century
6302	The Erimus Public House< Normanby Road	19th century
6304	South Bank	19th century
6578	Boundary stone West of Church Lane	19th century
6579	Boundary stone West of Church Lane	19th century

Pre-Industrial Periods (10,000BC – 1750AD)

5.2.2 There are no assets within the study area relating to the pre-Industrial period. No further assessment of the pre-Industrial period is made in this report.

Industrial – Modern Periods (1750 – present)

5.2.3 The first detailed mapping of the site, the Ordnance Survey 1st edition map of 1857, shows clearly how the site is largely farmland called The Pastures, on the southern bank of the Tees Estuary. The edge of the dry land is delineated by the Middlesbrough and Redcar Railway with Eston Junction Station (HER 4358), Eston Junction and Lackenby Station (HER 4360) already present. Holme Beck and the Eston Branch head south-east along the western side of the site, separated by a Bridle Road and the Knitting Wife Beck heads north into the Tees Estuary on the eastern side of the site.

5.2.4 Within the western part of the site, Eston Iron Works (HER 5631) was established by Henry Bolckow and John Vaughan in 1851, initially comprising 3 blast furnaces, 54 feet high (Rowe & Green 2007). The partnership already owned an iron and engineering works on the Tees at Middlesbrough, blast furnaces at Witton Park, and they were mining ironstone near Middlesbrough (Reference 14). Workers housing was provided in Furnace Row (HER 5627) to the west of the site. To the south of that, a more traditional farmstead, Clay Lane Farm, represented an earlier economy of the area.

5.2.5 Over the course of the following forty years, reclamation of the Tees estuary and the expansion of industrial processing transformed the area. Bernhard Samuelson and John Vaughan built the South Bank Iron Works (HER 5652) just north of the site in 1853, the works becoming operational the following year. By 1863, Samuelson had sold South Bank to Elwon, Malcolm & Co and opened

a much larger ironworks at Newport (Reference 7). Elwon, Malcolm & Co had already built the Clay Lane Iron Works (HER 5619) in 1858, and Lackenby Iron Works (HER 5659) was constructed in 1871 (Reference 20).

5.2.6 The Engineer Magazine recorded that in 1876 Bolckow, Vaughan & Co were close to completing their new Reversing Engines works at the New Cleveland Steel Works which replaced the Eston Iron Works (Reference 15). Bolckow, Vaughan & Co Ltd also acquired the South Bank Steelworks in 1879.

5.2.7 The massive change to the landscape imparted by the huge Cleveland Iron and Steel Works (HERs 5619 & 5633) can be seen in the comparison of the 1857 and 1895 Ordnance Survey maps. From a largely agricultural landscape in the mid-19th century with just a small iron works, the landscape becomes entirely dominated by the industrial concerns of Bolckow, Vaughan & Co. The Cleveland Iron Works, which incorporated both the Clay Lane and Bessemer Blast Furnaces, covered a large area of often undifferentiated buildings on the early maps, with multiple internal railways concentrated on the north-western part of the site, the railways feeding south and west to the mainlines. The 1:2500 1895 map provides sufficient detail to identify a total of 11 blast furnaces present within or just outside the western side of the site (eight belonging to Cleveland Iron Works and three later labelled Bessemer Blast Furnaces of the Cleveland Steel Works).

5.2.8 In the southern part of the site, allotment gardens are shown, associated with the terrace housing of the newly established Grangetown settlement, a small section of which fell within the red line boundary. Station Road connected the settlement with Grangetown Station to the north-east. Further housing, including a terrace called Eston Grange, and allotment gardens were present adjacent to Station Road, within the site. Boundary stones marked the edge of Holme Beck to the south of the site (HERs 6578 & 6579). Further boundary stones are shown to the east of the site. Eston Low Farm (later Low Grange Farm) was constructed in the later 19th century, indicating a continuing agricultural need locally (HER 6153).

5.2.9 To the north of the site, reclamation of the mudflats is shown by 1895 with internal railways taking waste to create spoil grounds (HER 5632 & 5652). The South Bank Iron Works, and Antonien Works (Phosphate Manure) are shown on the 25" 1895 map. The latter was later shown as 'Basic Slag Works' (HER 5624). Slag from the various ironworks was processed here and at other locations (e.g. Clay Lane Slag Works HER 5618) to be used in the construction of reclamation walls and also for making 'Scoria Blocks' which were used in paving roads and alleyways (Reference 20).

5.2.10 Jetties were constructed through the mud beyond the site from the newly reclaimed land to carry rail lines to wharves on the Tees bank. Eston Jetty (HER 5612) and Clay Lane Jetty (HER 5608) terminated at their respective wharves. The jetties and wharves are no longer shown by 1915 when reclamation had extended the dry land to its current boundary although raised railways and conveyors continued to move materials to and from the riverside. Reclamation walls (HERs 5604 and 6046) are shown north and south along the riverbank from Eston and Clay Lane Wharves.

5.2.11 Towards the end of the 19th century, numerous additional brick and tile works were established in the area. Imperial Brickworks (HER 3633), South Bank and Normanby Brick Works (HER 5621; also identified as South Bank & Normanby Gas Works HER 5622) and Tees Brick & Tile Works (HER 3634) were all established prior to the end of the 19th century. A further un-named brick yard was also present north-east of Lackenby Station on the 1895 Ordnance Survey map.

5.2.12 In addition to Grangetown, the workers' settlement of South Bank (HER 6304) was also present by the publication of the 1895 map. These settlements comprised housing, shops, and, increasingly, supporting facilities such as pubs (HERs 6295, 6299, 6301 & 6302), churches (HERs

879, 1253, 5630 & 6298), a police station (HER 6294), a political club (HER 6293), a school (HER 6292), and a working men's institute (HER 6300).

5.2.13 Bolckow, Vaughan & Co Ltd acquired the Clay Lane works in 1900, becoming the largest producers of steel in Great Britain. Changes to the works included the construction of the North Steel Mill, housing open hearth furnaces, to the east of the existing steelworks. By 1915, some of the blast furnaces had been removed but the site continued to expand with travelling cranes, storage and warehousing facilities added. Grangetown also saw an expansion in facilities with the addition of sports pitches, including a bowling green partially sitting within the site.

5.2.14 In 1914, Bolckow, Vaughan & Co had a workforce of 18,000 and were specialising in 'Cleveland pig iron, hematite, ferro-manganese and spiegeleisen steel rails and plates, tramrails, ironstone, coal, coke and by-products such as sulphate of ammonia, benzol, toluol, xylol, sol, naphtha and motor spirit; also fire brick and plate bricks, ground annealed slag and artificial stone. The manufacture of steel is carried on by the acid and basic processes, both Bessemer and Siemens' (Reference 14).

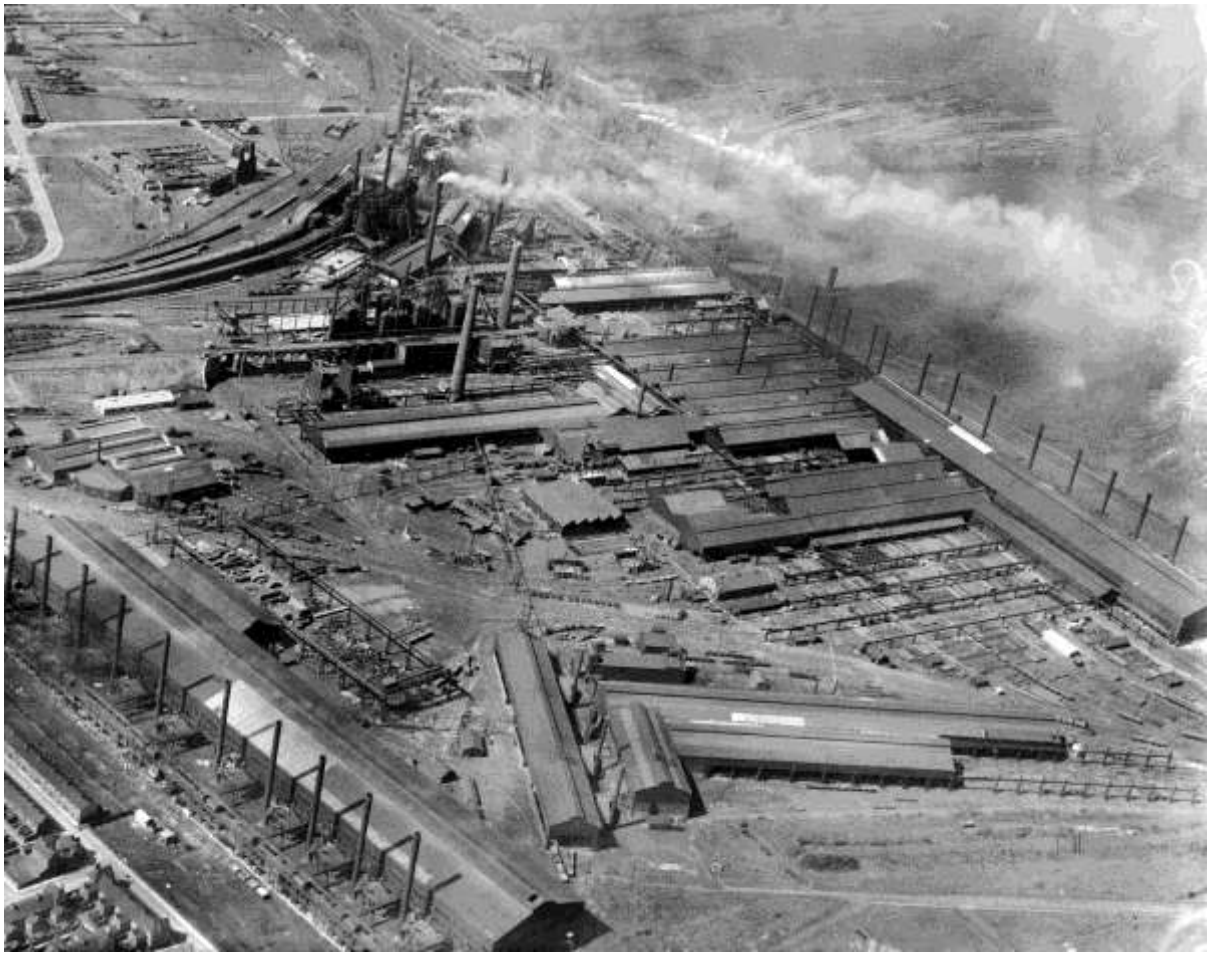

Plate 1: EPW010143 The Cleveland Steel Works, Grangetown 1924 (c) Historic England

5.2.15 In the 1920s, Bolckow, Vaughan & Co had again extended the steelworks with the addition of the South Steel Plant in the southern part of the site (now the site of the Torpedo Ladle Workshop), housing a further 10 open hearth furnaces, replacing the Grangetown sports facilities and some of the housing. Further industrial buildings, including the No 5 Rolling Mill, the laboratories, an engineering works, cranes, railways, cooling ponds and pumping stations had been constructed

on the eastern side of the site were built in the 1920s, with Station Road forming the boundary of the Cleveland Steel Works. Knitting Wife Beck was also straightened and partially culverted. However, in 1929, Bolckow, Vaughan & Co Ltd were effectively bankrupt, forcing them to accept a takeover by Dorman Long, who already operated the Britannia Works.

5.2.16 The works flourished following the take over and the company was renowned for the construction of steel bridges across the world, including the Tyne Bridge and Sydney Harbour Bridge. During the 1950s, the Bessemer blast furnaces were converted for the production of ferro-manganese and speigeleisen, used in refining steel from the open-hearth furnaces. The furnaces had been rebuilt in the 1930s and were rebuilt again in the 1950s. Coke ovens were also built in the 1950s, to the south of the blast furnaces.

5.2.17 The large number of steelworks and associated industries owned by Dorman Long & Co were linked by railways, conveyors and roads. The spread of sites and complexity of the rail system are evident in the simplified plans included in the internal publication 'A Technical Survey of Dorman Long Steel' 1959.

5.2.18 With the nationalisation of the steel industry in 1967, Dorman Long was absorbed into the newly created British Steel Corporation. Privatisation in 1988 saw the company rebranded as British Steel plc. The last two surviving Bessemer blast furnaces at Teesside Steelworks (HER 1831) were No. 5, constructed in 1937 and closed in 1986, and No. 4, built in 1991 and closed in 1993. Merger with Koninkljke Hoogovens in 1999 saw the works under the ownership of Corus which was then bought by Tata Steel in 2007. Corus closed the Teesside blast furnace in 2009 but it was then bought by Sahaviriya Steel Industries (SSI) in 2011, reopening in 2012, but by 2015 SSI UK had gone into liquidation and the plant finally closed.

5.3 Site Visit and Monitoring

5.3.1 A site visit was made on 10th June 2020 and a further visit made on 3rd November 2020 specifically to look at the remains of the blast furnace bases.

5.3.2 Three upstanding furnace bases were seen to be present, in a poor state of repair. Two of these are possibly 19th century in origin, the third is probably 20th century. The area to the east was considered to have low archaeological potential as development in this area did not occur until the 20th century when it was used initially for storage and later being partly developed as an engineering works and with large slag and iron storage pits. The areas to the north, south and west may contain remains of other elements of the 19th century Cleveland Iron Works and Eston Iron Works.

5.3.3 Monitoring of site investigations test pits was undertaken by NAA in August 2020 and it is understood to have identified subterranean brick arches which may be the remains of flues associated with the 1850s Eston Iron Works (N Cookson pers. com.)

6.0 Assessment

6.1 Designated Assets

6.1.1 There will be no direct or indirect impact on any designated assets.

6.2 Archaeological Potential

6.2.1 The remains of three blast furnace bases have been seen to survive on site. The date of these has not yet been established although one is believed to be entirely 20th century. The other two may have both 19th century and 20th century elements. They appear to have been damaged during the demolition of the steel works and as such are not considered of more than regional importance.

6.2.2 Evidence for brick flues in the area of the Eston Iron Works may be remnants of the first iron working facility on the site. Such remains would also be of regional importance.

6.2.3 Remains of the open hearth furnace and other elements of the 19th century iron and steel works may survive on site. Such features are likely to be of no more than local importance.

6.2.4 Remediation works are proposed across the site which would impact on any archaeological remains. As such, a programme of archaeological cleaning and recording will be undertaken of the blast furnace bases in advance of remediation works. Monitoring of the remediation will allow the identification and recording of other elements of the iron and steel works in advance of development.

7.0 Conclusions

7.1.1 The proposed development will have no direct effect on any designated assets.

7.1.2 Undesignated heritage assets date to the 19th and 20th centuries, relating to the industrial uses of the Site. These would be of up to regional importance.

7.1.3 Monitoring of SI and remediation works would assist in determining the potential for the survival of below ground elements of the 19th century iron and steel works, particularly in the area of the North Mill open hearth furnaces and Eston Iron Works. Dependent on the results of this monitoring, areas of archaeological monitoring during remediation works might be required. Cleaning and recording of the blast furnace bases will allow confirmation of their date and development and allow a programme of mitigation to be established.

8.0 References

8.1 Cartographic Sources

Ordnance Survey 1:1,250 1953, 1958-74

Ordnance Survey 1:2,500 1894-95, 1899, 1915, 1929, 1954, 1959-69

Ordnance Survey 1:10,000 1980, 1993

Ordnance Survey 1:10,560 1857, 1895, 1920, 1931-38, 1955

Russian mapping 1:10,000 1975

8.2 Digital Sources

http://ads.ahds.ac.uk/

http://discovery.nationalarchives.gov.uk/

http://environment.data.gov.uk/ds/survey/index.jsp#/survey

http://mapapps.bgs.ac.uk/geologyofbritain/home.html

http://www.heritagegateway.org.uk/gateway/

http://www.magic.gov.uk/

https://historicengland.org.uk/listing/the-list/

https://www.britainfromabove.org.uk/

https://www.old-maps.co.uk

https://www.rmweb.co.uk/community/index.php?/topic/28937-steel-making-on-teeside/&tab=comments#comment-304495

www.flickr.com

www.pastscape.org/homepage/

https://www.gracesguide.co.uk/Bolckow,_Vaughan_and_Co

9.0 Figures

Figure 1: Site Location Map (source OS Opendata)

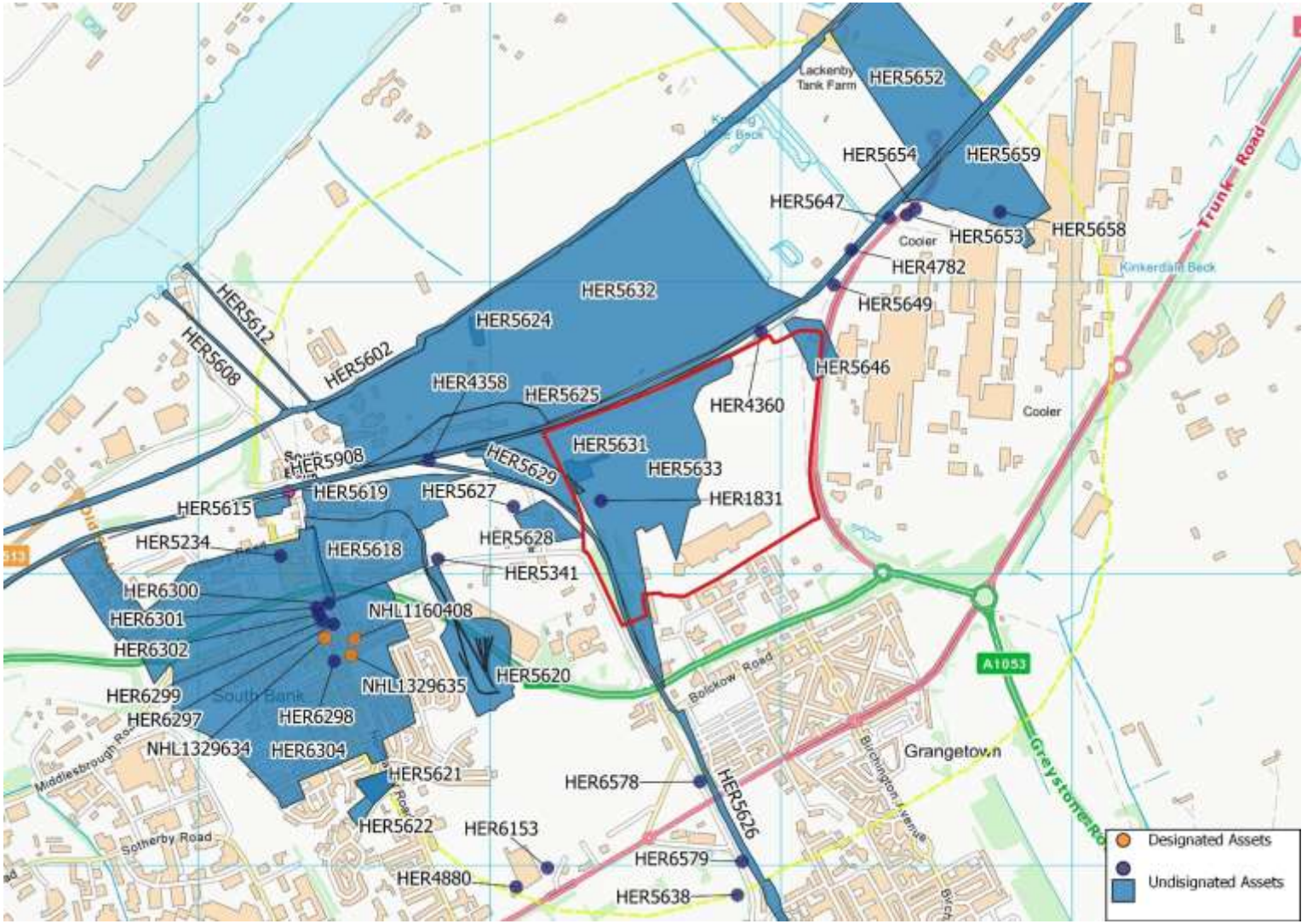

Figure 2: Designated and undesignated heritage assets (Cleveland & Redcar HER)

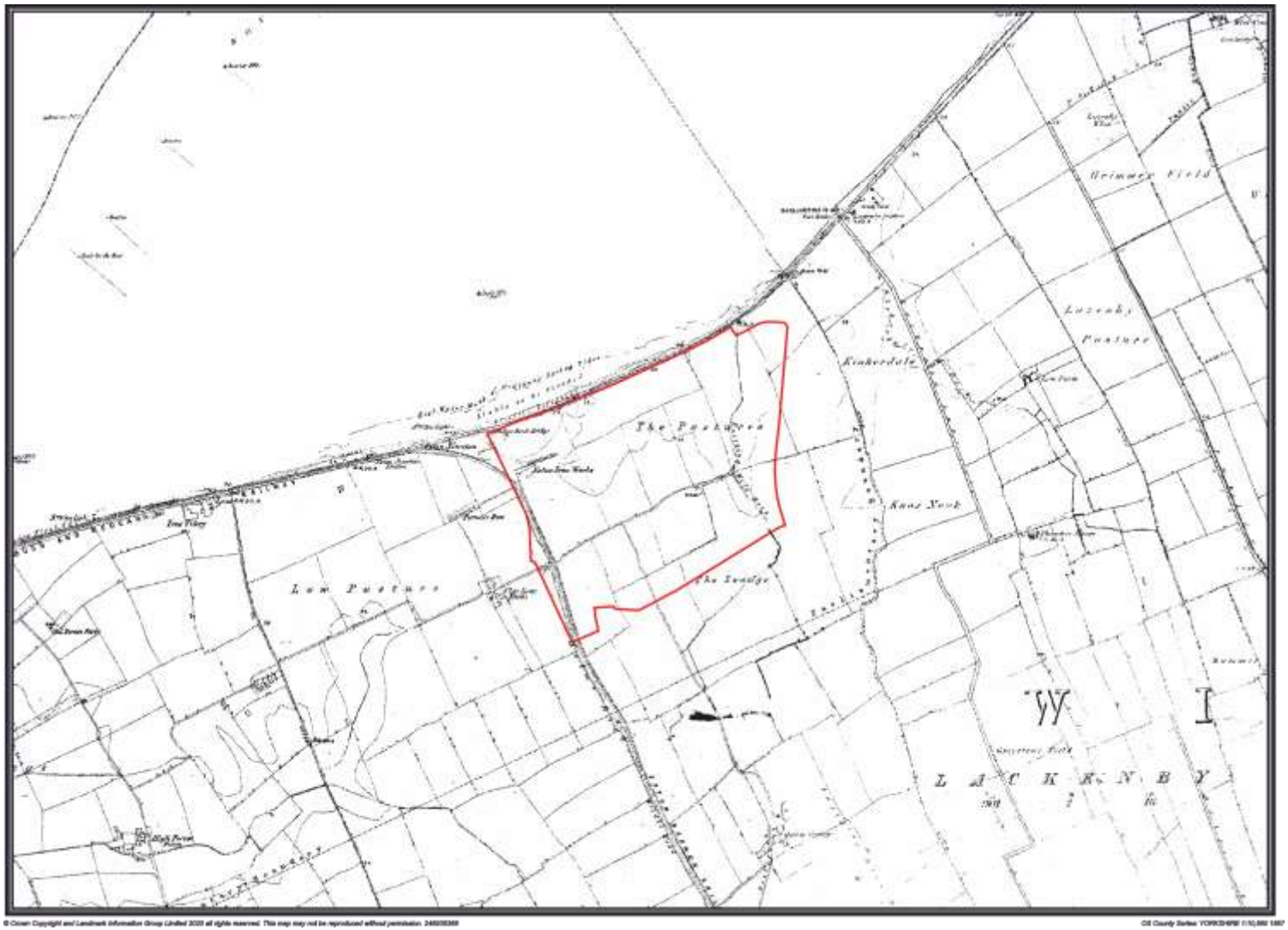

Figure 3: Ordnance Survey 1857 1:10.560

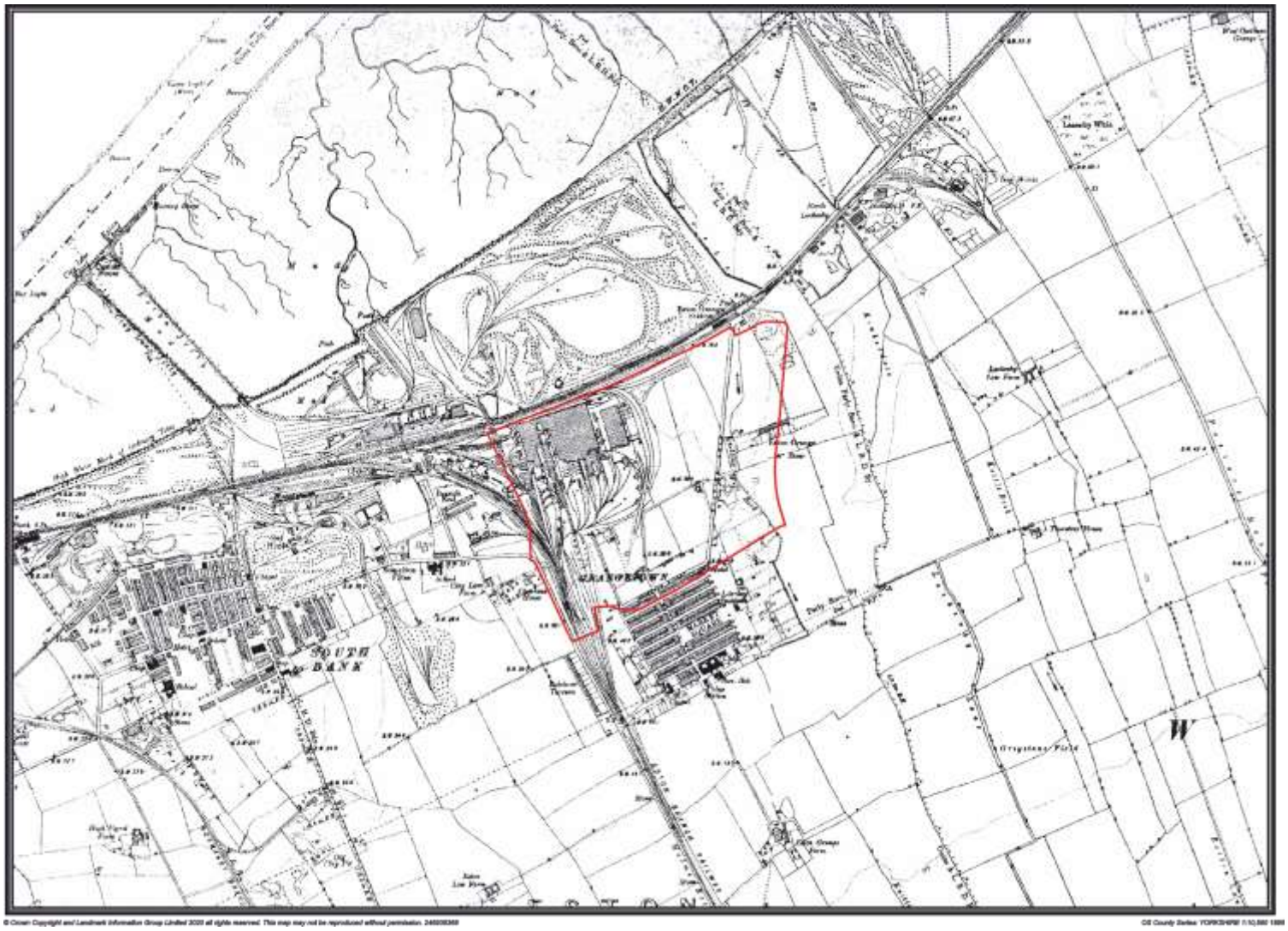

Figure 4: Ordnance Survey 1895 1:10.560

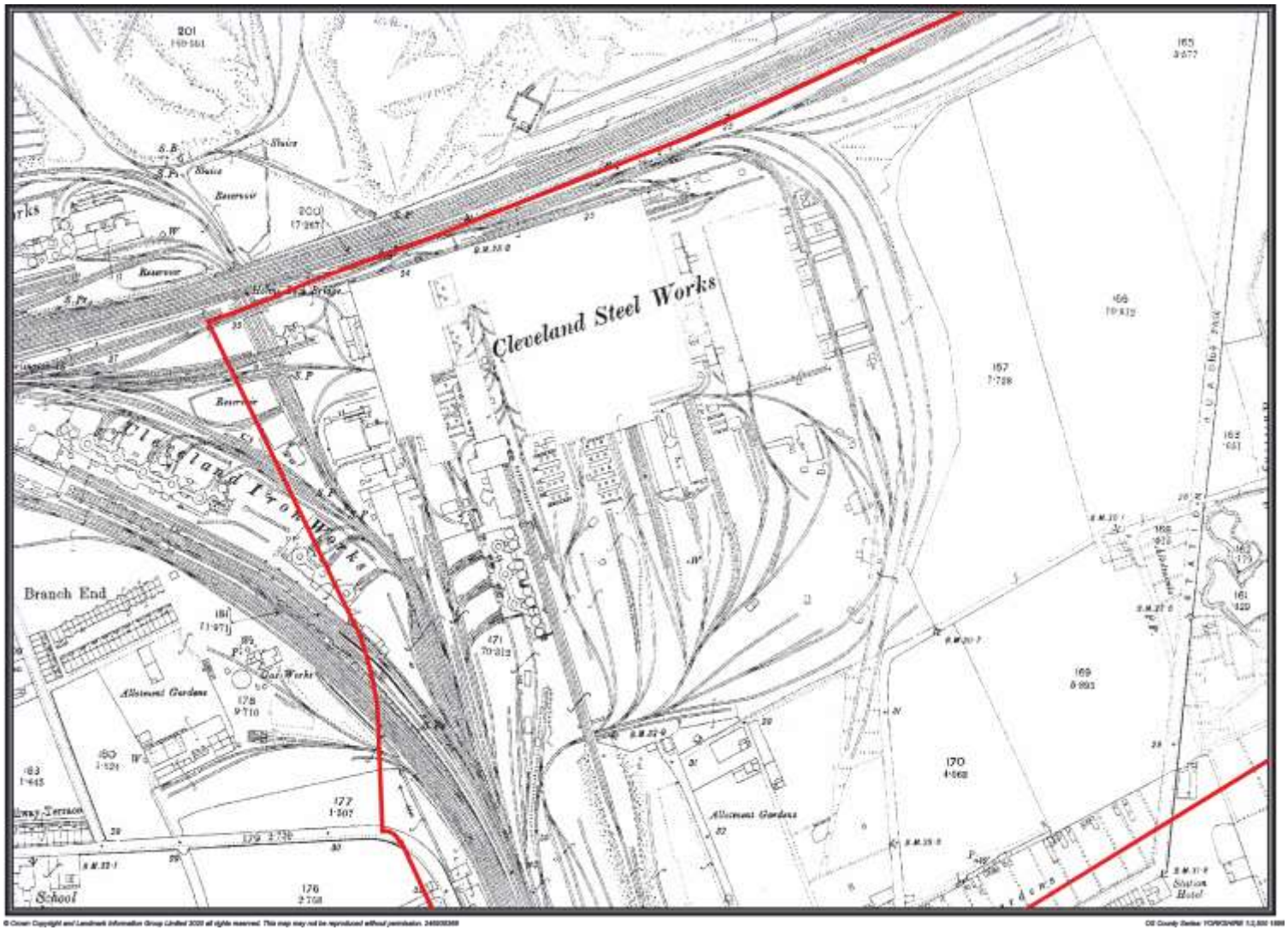

Figure 5: Ordnance Survey 1895 1:2,500

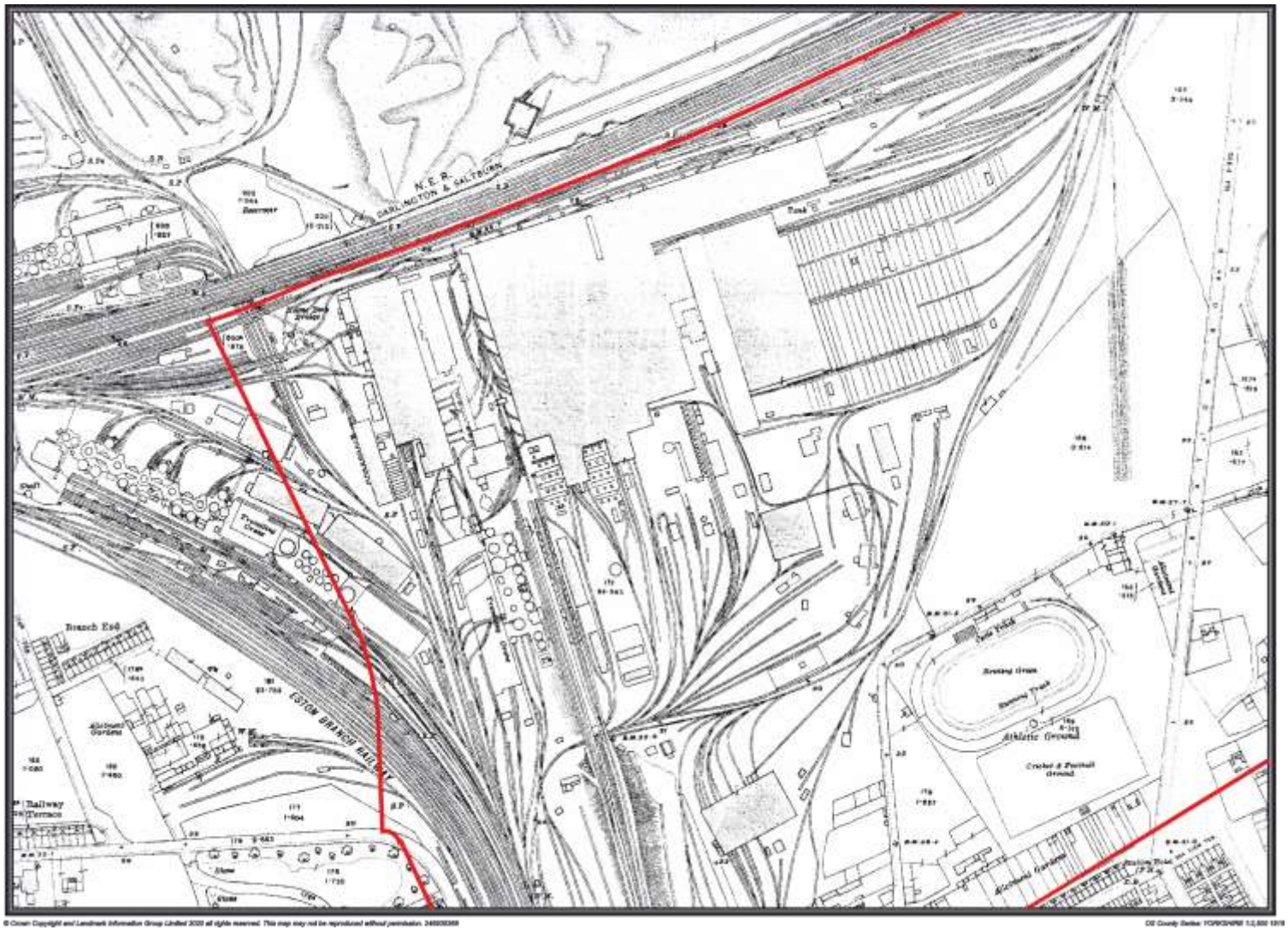

Figure 6: Ordnance Survey 1915 1:2,500

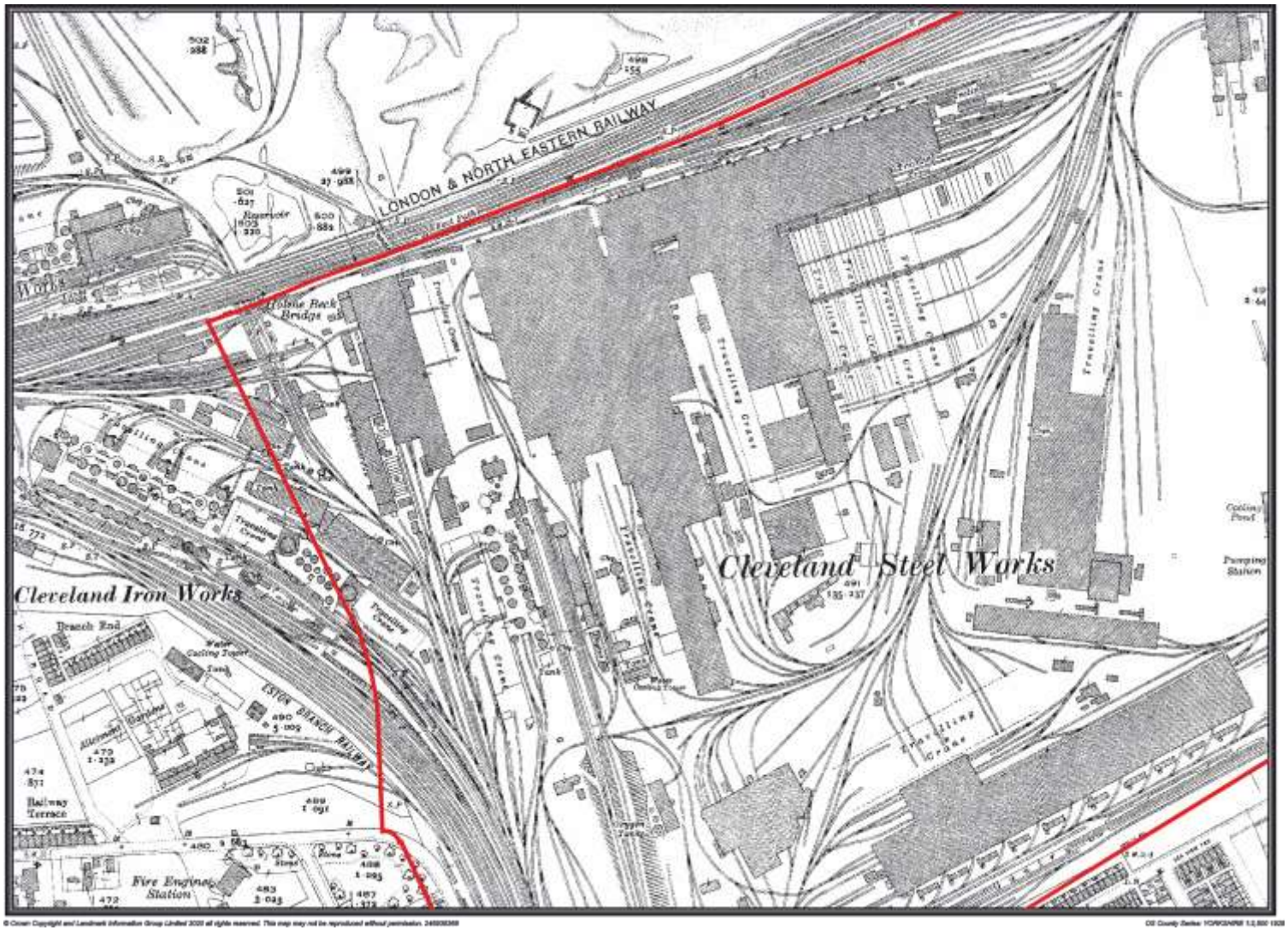

Figure 7: Ordnance Survey 1929 1:2,500

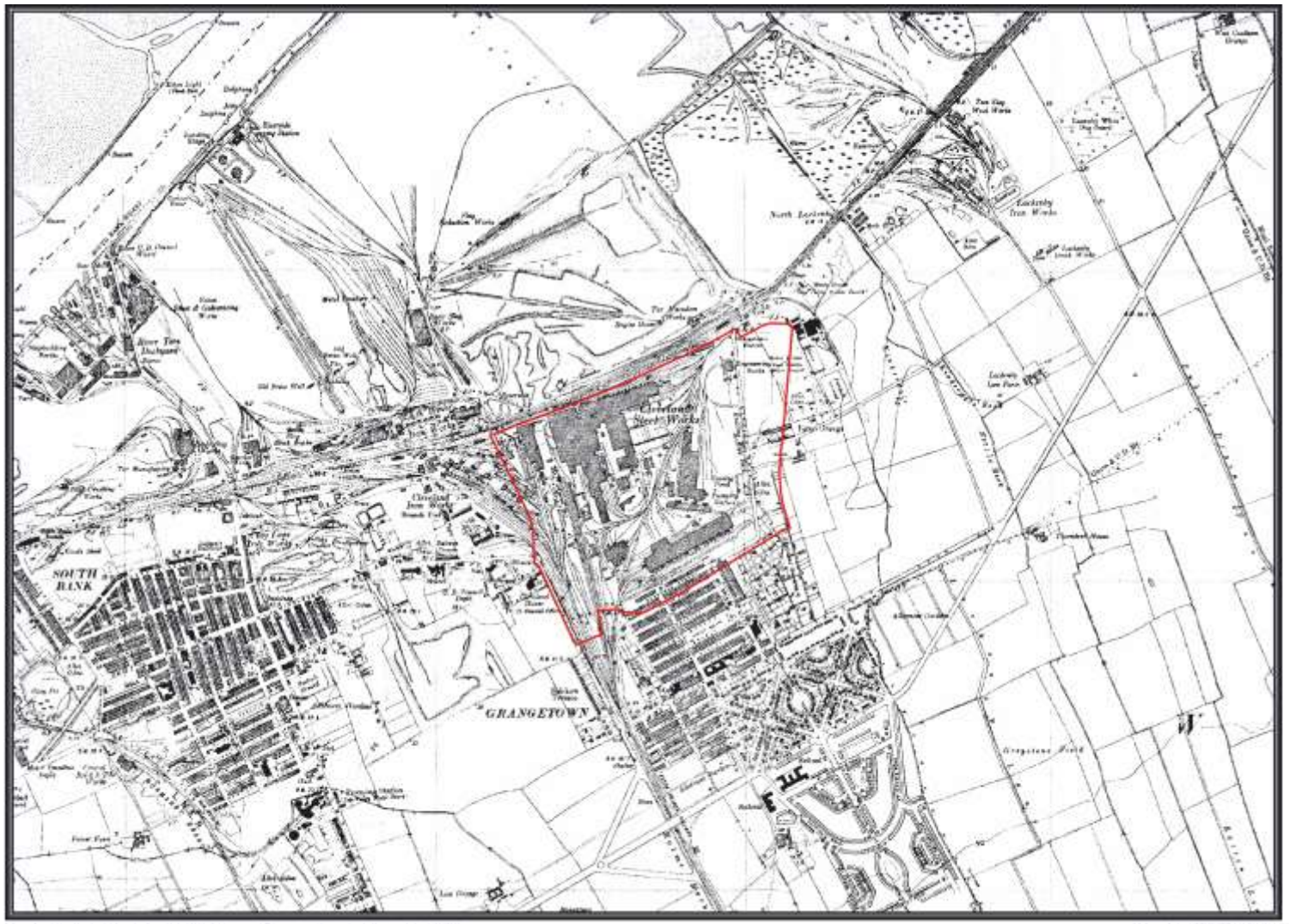

Figure 8: Ordnance Survey 1931-38 1:10,560

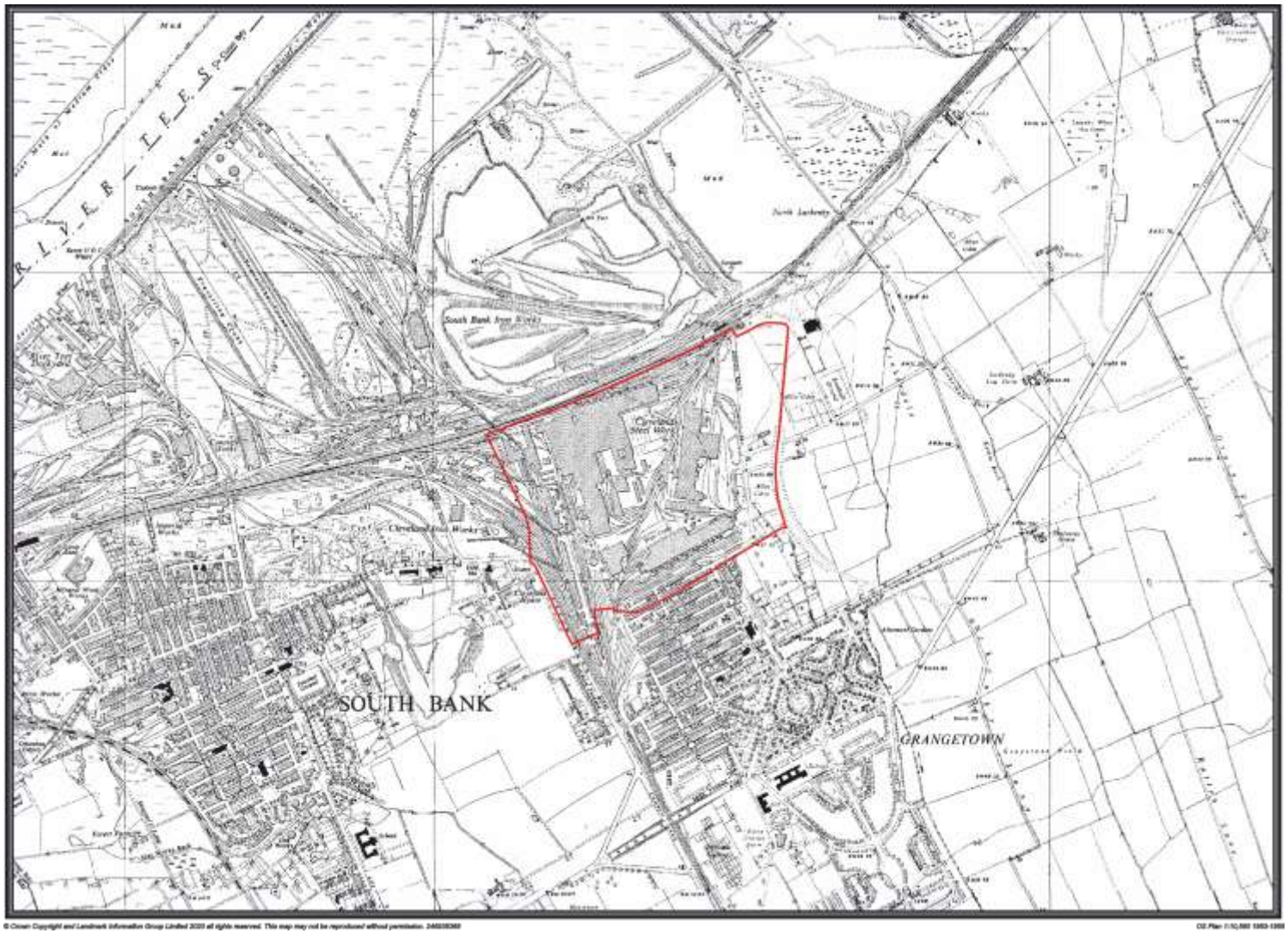

Figure 9: Ordnance Survey 1953-55 1:10,560

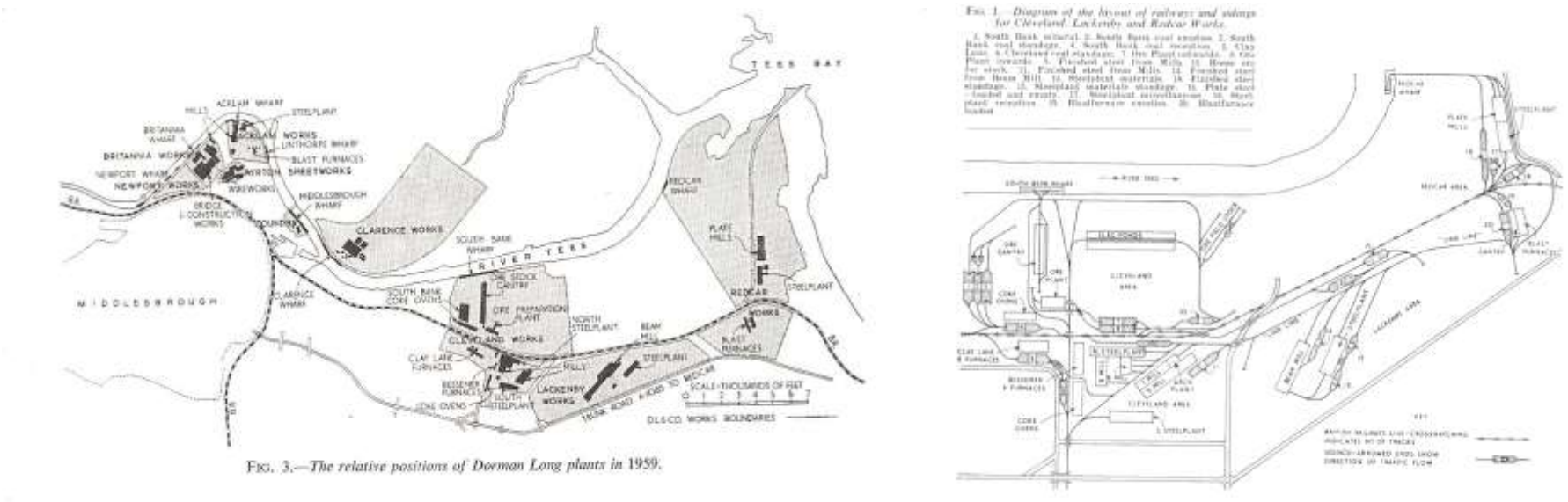

FIG. 3.—*The relative positions of Dorman Long plants in* 1959.

Figure 10: Plans of Dorman Long plants and the railway arrangements from 'A Technical Survey of Dorman Long Steel' 1959

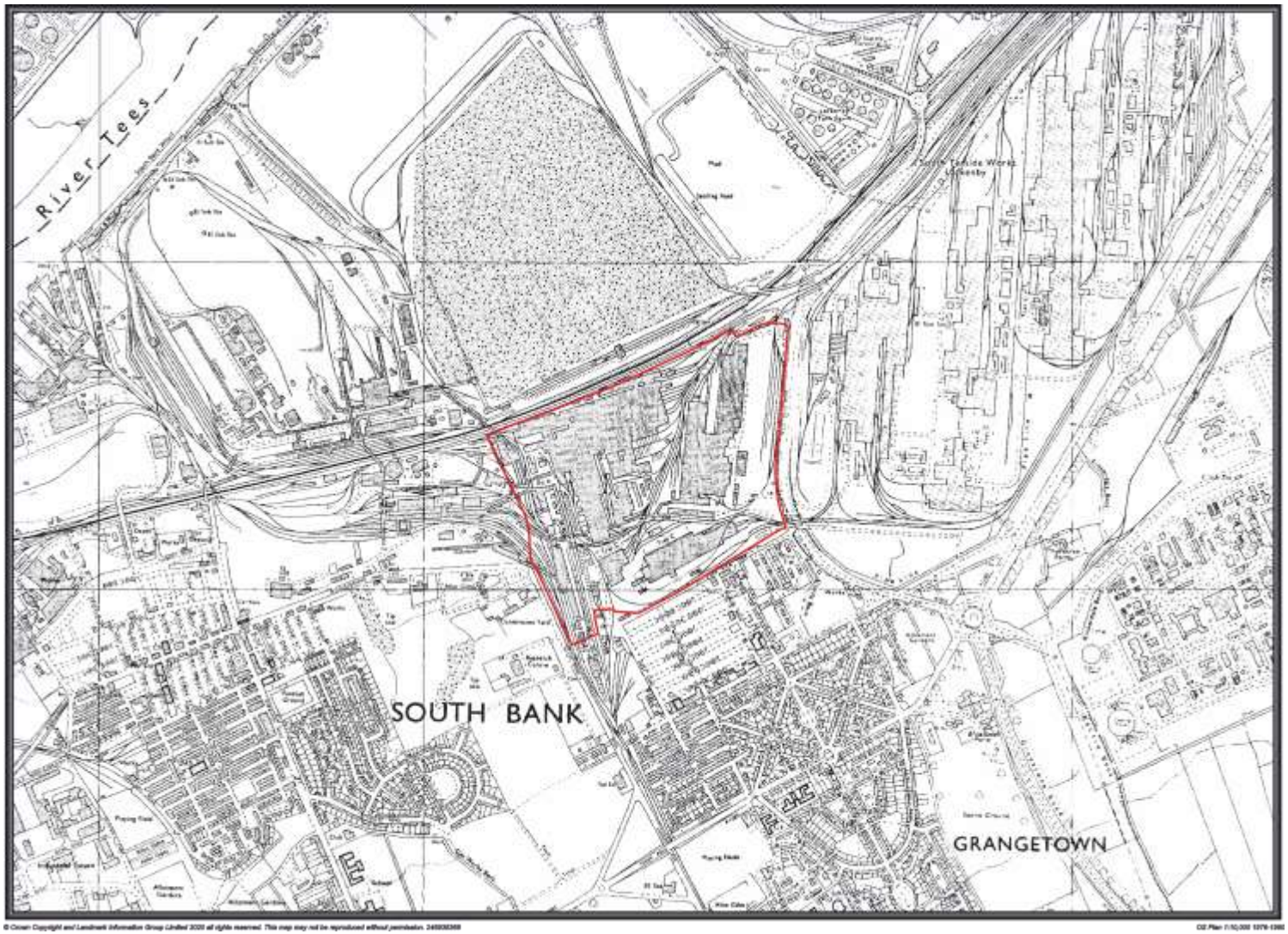

Figure 11: Ordnance Survey 1976-80 1:10,560

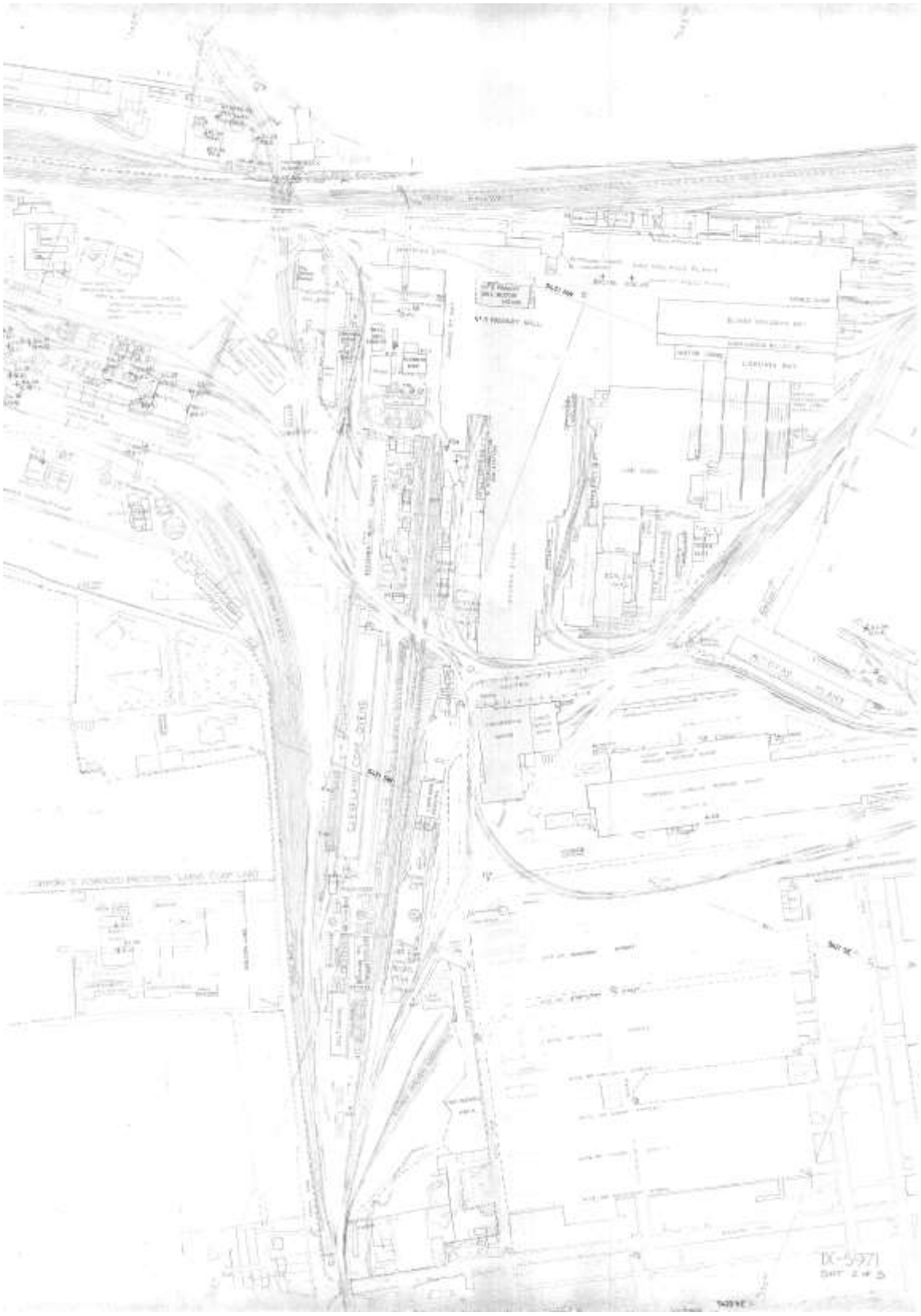

Figure 12: Extract from detailed internal plans 1978

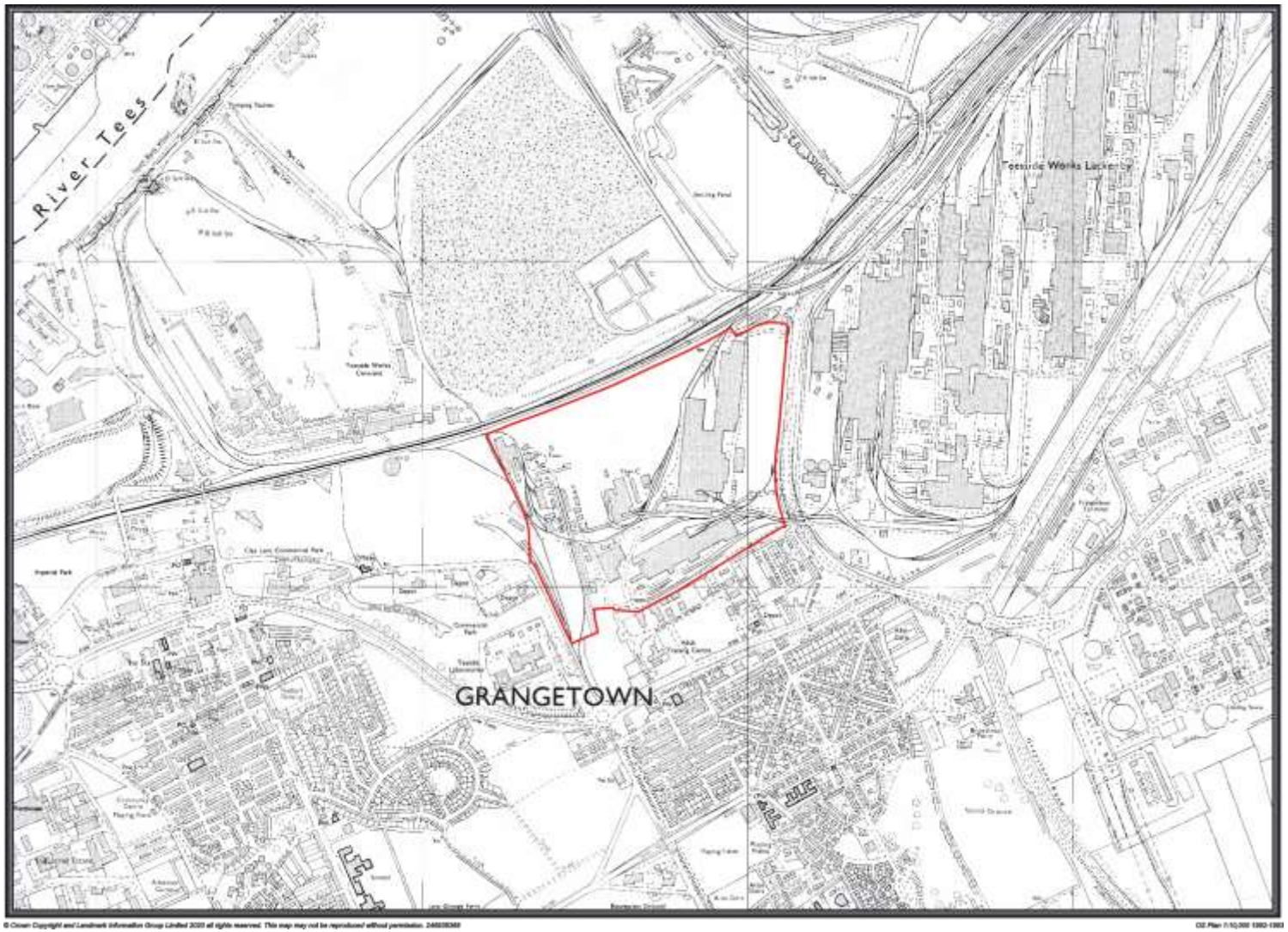

Figure 13: Ordnance Survey 1993

10.0 Plates

Plate 2: Google Earth 2000 & 2018

Plate 3: View from central western area looking east towards the British Steel Lackenby site.

Plate 4: View east towards the Torpedo Ladle Repair Shop

Plate 5: Looking north over the site of the former Bessemer blast furnaces to the South Bank Coke Works

Plate 6: The Holme Beck Subway

Plate 7: The Oxygen Plant with the embankment of the former railway to the Bessemer Blast Furnaces behind.

Plate 8:Looking south from the Oxygen plant to the former Loco Shed Repairs shop and Bolckow Industrial Estate beyond.

Plate 9: View across the Bessemer blast furnace bases

Plate 10: Close up of one of the blast furnace bases

Appendix 1: Legislation and Planning Policy Context

Ancient Monuments and Archaeological Areas Act 1979 (AMAAA)

The Act is the primary legislation protecting archaeological remains within the United Kingdom. It identifies as a duty of the Secretary of State the need to compile and maintain a schedule of ancient monuments of national importance, to allow for their preservation, so far as possible, in their current (at the time of scheduling) state.

A statement setting out current Government policy on the identification, protection, conservation and investigation of nationally important (both scheduled and nationally important non-scheduled) ancient monuments was published in October 2013 (DCMS 2013).

Where works to scheduled monuments are proposed for development-related purposes, the Secretary of State has particular regard to the following principles:

Only in wholly exceptional cases will consent be granted for works could result in substantial harm to, or loss of, the significance of a Scheduled Monument; and

In cases that would lead to less than substantial harm to the significance of a Scheduled Monument the harm will be weighed against the public benefits of the proposal (DCMS 2013, para 20).

This legislative position is directly reflected in the National Planning Policy Framework (NPPF) which states that "Where a proposed development will lead to substantial harm to (or total loss of significance of) a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or total loss is necessary to achieve substantial public benefits that outweigh that harm or loss…" (NPPF, para 195), and "Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use" (NPPF, para 196).

Where consent is granted for works that could result in harm to, or loss of, the significance of a Scheduled Monument, conditions are expected to be imposed that provide for recording of information that adds to our understanding of the significance of that monument. Those conditions are likely to be designed to ensure that:

- the project design seeks to further the objectives of relevant international or national research frameworks;
- use is made of appropriately skilled teams with the resources to fully implement the project design to relevant professional standards (such as those published by the Institute for Archaeologists);
- the project design provides for the full analysis, publication and dissemination of the results, including the deposition of reports in the relevant Historic Environment Record (HER), to a set timetable; and
- provision is made in the project design for the conservation and deposition of the site archive with a local museum or other public depository willing to receive it (DCMS 2013, para 21).

Planning (Listed Buildings and Conservation Areas) Act 1990

Section 66 of the Planning (Listed Buildings and Conservation Areas) Act (1990) highlights the importance of built heritage and Listed Buildings within the planning system. With regard to the Local Planning Authority's (LPA) duty regarding listed buildings in the planning process, it states that:

"In considering whether to grant planning permission for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State shall have special regard

to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses".

In addition, Section 72 of the Act emphasises the value of Conservation Areas in built heritage planning. In relation to the duties and powers of the LPA, it provides that:

"With respect to any buildings or other land in a conservation area, special attention shall be paid to the desirability of preserving or enhancing the character or appearance of that area".

The National Planning Policy Framework (NPPF) 2018

This replaces all previous Planning Policy Guidance notes (PPGs) and Planning Policy Statements (PPSs) and revises the NPPF 2012.

Section 16 provides policy on 'Conserving and enhancing the historic environment'. Planning decisions have to be made from a position of knowledge and understanding with respect to the historic environment. Paragraph 189 states:

"In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impacts of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation".

In paragraph 192, it is made clear that a balance must be sought, on the one hand sustaining and enhancing the significance of heritage assets and the positive contribution that they can make to communities, and on the other in considering the positive contribution that a new development could make to local character and distinctiveness.

The impact on a heritage asset should be assessed in terms of the significance of that asset; the greater the significance, the greater weight should be given in that assessment. Any harm to, or loss of, the significance of a designated asset should require clear and convincing justification. Where substantial harm or loss is predicted, approval should be given only in exceptional circumstances for Grade II listed buildings, parks or gardens. For heritage assets of higher importance (Grade II* & I listed buildings and parks & gardens, scheduled monuments, protected wreck sites, battlefields and World Heritage Sites) approval for proposed developments that cause substantial harm should be 'wholly exceptional' (para 194). In all cases the harm must be weighed against the public benefit (para 195).

As a footnote to para 194 the NPPF states that:

"Non-designated heritage assets of archaeological interest, which are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets."

As is reflected in the DCMS 2013 statement on Government policy, it is made clear that undesignated heritage assets of national importance should be afforded the same consideration as designated assets of equivalent significance:

"The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that affect directly or indirectly non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset" (para 197);"

In addition, para 187 states that:

"Local planning authorities should maintain or have access to a historic environment record. This should contain up-to-date evidence about the historic environment in their area and be used to:

a) assess the significance of heritage assets and the contribution they make to their environment; and

b) predict the likelihood that currently unidentified heritage assets, particularly sites of historic and archaeological interest, will be discovered in the future. This replaces all previous Planning Policy Guidance notes (PPGs) and Planning Policy Statements (PPSs)."

Among the core planning principles, provision is made to "conserve heritage assets in a manner appropriate to their significance, so that they can enjoyed for their contribution to the quality of life of this and future generations" (CLG 2012, para 17).

Section 12 provides policy on 'Conserving and enhancing the historic environment'. Planning decisions have to be made from a position of knowledge and understanding with respect to the historic environment. Paragraph 128 states: "In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impacts of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation".

In paragraph 131, it is made clear that a balance must be sought, on the one hand sustaining and enhancing the significance of heritage assets and the positive contribution that they can make to communities, and on the other in considering the positive contribution that a new development could make to local character and distinctiveness.

The impact on a heritage asset should be assessed in terms of the significance of that asset; the greater the significance, the greater weight should be given in that assessment. A distinction is made between 'substantial' and 'less than substantial' harm. Where substantial harm or loss to is predicted, approval should be given only in exceptional circumstances for Grade II listed buildings, parks or gardens. For heritage assets of higher importance (Grade II* & I listed buildings and parks & gardens, scheduled monuments, protected wreck sites, battlefields and World Heritage Sites) approval for proposed developments that cause substantial harm should be 'wholly exceptional' (para 132). In all cases the harm must be weighed against the public benefit (paras 133 & 134).

As is reflected in the DCMS 2013 statement on Government policy, it is made clear that undesignated heritage assets of national importance should be afforded the same consideration as designated assets of equivalent significance:

"The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that affect directly or indirectly non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset" (para 135);

"Non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets" (para 139).

National Planning Practice Guidance (2014)

The National Planning Practice Guidance (NPPG) was published by the Department for Communities and Local Government in March 2014 and provides guidance for planners and communities which will help deliver high quality development and sustainable growth in England. In terms of heritage, guidance entitled 'Conserving and enhancing the historic environment' sets out information with respect to the following:

- the recognition of the appropriate conservation of heritage assets forming one of the 'Core Planning Principles' that underpin the planning system;
- what the main legislative framework for planning and the historic environment is (Planning (Listed Buildings and Conservation Areas) Act 1990; Ancient Monuments and Archaeological Areas Act 1979; and Protection of Wrecks Act 1973);
- a definition of 'significance';
- why significance is important in decision-taking;
- the considerations of designated and non-designated assets;
- the identification of non-designated heritage assets; and
- the considerations for when applications for planning permission are required to consult or notify English Heritage.

Non-Statutory Guidance

English Heritage Conservation Principles Policies and Guidance (EH 2008) defines the setting of historic assets as:-

"…the surroundings in which a place is experienced, its local context, embracing present and past relationships to the adjacent landscape…"

EH draws a distinction between 'setting' and 'context' (paragraphs 76 and 77) and the document makes it clear that whereas 'setting' involves a localised area, 'context' is a wider concept involving "any relationship between a place and other places, relevant to the values of that place".

- Heritage values are considered under four main headings
- Evidential Value derives from the potential for a place to yield evidence about past human activity
- Historical Value derives from the ways in which past, people and events can be connected through a place to the present
- Aesthetic value derives from the ways in which people draw sensory and intellectual stimulation from a place.
- Communal value derives from the meanings of a place for the people who relate to it.

Local Policy Guidance

The Redcar & Cleveland Local Plan (Adopted 2018) contains policies relating to the Historic Environment. There are no Conservation Areas or Designated Heritage Assets that would be affected by this proposal. Policy HE3 'Archaeological Sites and Monuments' is relevant, however. It states:

Development that would adversely affect archaeological sites or monuments that are designated

heritage assts or their settings, or archaeological sites of equivalent sigfnificance will only be approved in the most exceptional circumstances and in accordance with this policy and other heritage policies in this plan.

Development that may affect a known or possible archaeological site, whether designated or non-designated, will require the results of a desk-based assessment to be submitted as part of the planning application. An archaeological evaluation may also be required to identify the most appropriate course of action.

Development that affects a site where archaeology exists or where there is evidence that archaeological remains may exist will only be permitted if:

a. *The harm or loss of significance is necessary to achieve public benefits that outweigh that harm or loss. Harm or loss may be avoided by preservation in situ or refusal: or*

b. *Where in situ preservation is not required, appropriate satisfactory provision is in place for archaeological investigation, recording and reporting to take place before, or where necessary during, development. Where archaeological investigation, recording and reporting has taken place it will be necessary to publish the findings within an agreed timetable.*

Appendix K2: Written Scheme of Investigation - Archaeological Recording and Watching Brief

Energy Recovery Facility, Cleveland Iron and Steel Works
Written Scheme of Investigation – Archaeological Recording and Watching Brief

Client: South Tees Development Corporation

Local Planning Authority: Redcar & Cleveland Borough Council
Planning Reference: R/2019/0767/OOM
NGR: NGR

Date of Report: November 2020
Author: Nansi Rosenberg
Report No.: LIC02.02

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Contents

1.0 Introduction

1.1 South Tees Development Corporation (STDC) has been granted outline planning permission (R/2019/0767/OOM) for the development of an Energy Recovery Facility (ERF) at the Grangetown Prairie Land of the former Cleveland Iron & Steel Works, Redcar & Cleveland (NGR NZ54382123, see Figure 1). The permission is subject to a condition (number 7) which requires a programme of archaeological work to be undertaken in advance of remediation:

> *No phase of development shall take place until a written scheme of investigation (WSI) for archaeological work within that phase has been submitted to and approved in writing by the local planning authority. The WSI shall as a minimum make provision for:*
> *(i) Before remediation or development commences, archaeological evaluation of borehole and trenching data*
> *(ii) Before remediation or development commences, initial archaeological survey (drawn and photographed) of the whole application site, with particular emphasis on the remains the subject of preservation in situ*
> *(iii) Where practical and before remediation or construction works takes place on site an archaeological strip, map and sample of remains of high significance suggested by the borehole/trenching data, or observed during the initial survey*
> *(iv) An archaeological watching brief of all ground disturbance during the remediation works and during construction ground works in areas identified as archaeologically sensitive*
> *(v) Protection during development, followed by consolidation and preservation of high value remains left in situ*
> *(vi) a general programme of works and monitoring arrangements, including reasonable notification to the local planning authority of commencement of works*
> *(vii) details of staff involvement in carrying out the work (including specialists), and their qualifications and responsibilities*
> *(viii) the timetable for completing post-excavation assessment.*
>
> *(a) Provision for the analysis, archiving and publication of the results of the archaeological surveys and excavations shall be secured to the satisfaction of the local planning authority by the developer before the development is brought into use.*
>
> *(b) The development shall not without the prior written approval of the local planning authority be carried out otherwise than in accordance with the approved WSI, and the consolidation and preservation of on-site remains as provided for in the WSI (or as otherwise agreed at any time in writing by the local planning authority) shall be secured by the developer and/or landowner on an on-going basis.*
>
> *REASON: The site contains remains of significant archaeological interest, some of which merit preservation in situ.*

REASON FOR PRE-COMMENCEMENT: A pre-commencement condition is required to ensure that no remains are disturbed or otherwise compromised by site excavation of other ground works.

1.2 This Written Scheme of Investigation (WSI) has been prepared by Prospect Archaeology Ltd and details the staffing, methodology and timetable of the programme of works for investigation and recording works. It complies with the Chartered Institute for Archaeologists' (CIfA) *Standard and guidance for archaeological field evaluation* (CIfA 2014), *Standard and guidance for the archaeological investigation and recording of standing buildings or structures* (CiFA 2014), *Standard and guidance for archaeological excavation* (CiFA 2014) and *Standard and guidance for an archaeological watching brief* (CiFA 2014) in the their updated (2020) versions.

2.0 Site Location and Description

2.1 The site is located to the east of John Boyle Road and west of Tees Dock Road, in an area formerly occupied by the Cleveland Iron & Steel Works (centred on NGR NZ 5438 2123). The proposed development site occupies an area of c. 10ha south of the Middlesbrough to Redcar main railway line. It forms part of the larger Grangetown Prairie site. The built elements of the former steelworks have been largely cleared from the Site and it is currently a mixture of rubble, hard-standing and other rough ground.

3.0 Previous Archaeological Work

3.1 The site has been the subject of two desk-based assessments (Prospect Archaeology 2020 and Tees Archaeology 2019). These both document the long and complex history of use of the Site for iron and steel production but came to differing conclusions on the potential for survival and significance of any remains of the 19th century works. Archaeological monitoring (watching brief) of site investigation test pits has been undertaken by NAA and a site visit and walkover survey has been undertaken by Pre-Construct Archaeology. These have identified the presence of three surviving blast furnace bases. One is believed to be of 20th century date and the other two of possibly 19th century date. The NAA report concludes that arched brick structural remains to the north of the later Cleveland Iron Works furnaces may be furnace flues of the 1850s Eston Iron Works (N Cookson pers com),

4.0 Scope of Works

4.1 An area of specific archaeological interest has been identified by the Tees Archaeology report and the programme of works detailed in this document will focus primarily on that part of the site (see Figure 2). The area to the east has low archaeological potential and the areas to the north, west and south will be subject to archaeological watching brief during any further SI works and remediation. The watching brief will be enhanced, in its initial stages akin to a strip, map and record, in the area containing the potential remains of the Eston Iron Works.

5.0 Aims and Objectives

5.1 The purpose of the excavation and recording exercise is to establish the nature, date, depth, quality of survival and significance of any archaeological deposits as well as identify any further

features which may be impacted and require mitigation. A mitigation strategy will be developed in consultation with the North East Archaeological Research Ltd (NEAR) as advisors to the local authority.

5.2 Specifically, the recording work will be carried out in a manner that assists assessment of whether any structures merit and/or are capable of preservation in situ.

5.3 Archaeological monitoring during SI works and remediation is designed to assist in the identification of areas of archaeological survival and allow recording strategies to be developed and implemented.

6.0 General Instructions

Health and Safety

6.1 The archaeologists on site will operate with due regard for Health and Safety regulations. Where archaeological work is carried out at the same time as the work of other contractors, regard should also be taken of any reasonable additional constraints that these contractors may impose. This work will require the preparation of a Risk Assessment in accordance with the Health and Safety at Work Regulations. The archaeological contractors will comply with any and all health and safety procedures in place for the overall site and complete inductions, training and tool-box talks as necessary.

7.0 Method

Watching Brief

7.1 The intention of the archaeological watching brief is not to unduly delay the work of other contractors on site, however, a degree of flexibility is also expected of the developer in order that the archaeologists can fulfil the objectives and on-site requirements of this WSI.

7.2 Where archaeological deposits are encountered within the area of development the contractor will allow sufficient time for the archaeologists to undertake cleaning, mapping, sample excavation and recording. Built structures such as walls will be examined and sampled to a degree whereby, as far as is practicable given general site conditions, their extent, form, date, function and relationship to other features and deposits can be established. In the area considered to contain remains related to the Eston Iron Works, trenching and removal of overburden will proceed in a manner that enables an archaeologically reliable record of all such related remains to be made,

7.3 An archaeologist should be present on site during any excavation. The archaeologist should view the area as it is being dug and any trench sections after excavation has been completed. Where archaeology is judged to be present, the excavated area should be rapidly cleaned and the need for further work assessed. Should areas of archaeological interest be identified, the consultant should be informed in the first instance to allow discussions with NEAR to take place and a strategy for mitigation be rapidly developed.

7.4 All features/deposits of archaeological interest should be accurately located on a site plan and recorded by photographs, scale drawings and written descriptions sufficient to permit the preparation of a report. Section drawings (at a minimum scale of 1:20) must include heights O.D. Plans (at a minimum scale of 1:50) must include O.D. spot heights for all principal strata and any features. Where initial assessment is that remains of archaeological interest are present, a sufficient sample of archaeological features and deposits will be hand excavated in an archaeologically controlled manner in order to establish their extent, nature, function, condition, date and relationship to other features where possible.

7.5 The actual areas of ground disturbance (even if no archaeological remains are present) should be recorded on a suitable base map/development plan and the stratigraphic sequence and the depth of the excavations will be briefly recorded. If archaeological remains are identified, their location is to be accurately tied into the National Grid and located on an up-to-date 1:1250 O.S. map base. All features will be recorded using a Total Station instrument (GPS).

7.6 Excavated soil should be searched as practicable for finds. All finds, except unstratified 20th & 21st century material, should be collected and retained for processing.

7.7 Recording methods should comply with those detailed below for excavation and recording.

Unexpected Discoveries

7.8 If significant archaeological features or deposits are uncovered, which could not reasonably have been expected, the scope of the WSI will be reviewed to determine the most appropriate recording and sampling strategy for those remains. Should this be required, the locations and extent of additional archaeological investigation will be agreed by all parties on site.

Excavation and Recording

7.9 Within the Recording and Excavation area (Figure 2) surviving upstanding structures and surface features such as walls, roadways, railway tracks, chimney bases, stanchions and the blast furnace bases will be identified and recorded in the first instance. The judicious use of a mechanical excavator under direct, close archaeological supervision, combined with hand cleaning / excavation, may be employed to better reveal the extent of partially buried or obscured features and structures. A survey of the features and structures identified will be prepared and issued to Prospect Archaeology and NEAR prior to a site monitoring visit.

7.10 From this survey the footprint and phasing of production buildings will be plotted and used to inform strip and record excavation. Particular attention should be paid to dating the blast furnace bases through identification of materials and methods of construction used.

7.11 Archaeological recording will be carried out by means of unique numeric based context records and will be written, drawn and photographic (and any other appropriate means). All archaeological exposures (layers, cuts, fills, structures) will be recorded using pro forma recording sheets. Harris

Matrix stratification diagrams will be used to record stratigraphic relationships and these records will be compiled and fully checked during the course of the recording work.

7.12 The area of investigation will be located by appropriate means to ensure its accurate location relative to the Ordnance Survey National Grid.

7.13 A drawn record will be maintained, comprising a site plan showing the locations of the areas of excavation within the Site, feature plans elevations and section drawings as appropriate. These will be produced at appropriate scales, normally 1:100, 1:50, 1:20 and/or 1:10, as the complexity of the drawing requires. Detailed plans will be made of key features and section or elevation drawings provided of cut features and upstanding structures as appropriate. All drawings will be referenced to the overall site plan. OD spot heights for all principal strata should be included on plans.

7.14 A photographic record of the project and of each feature / structure / deposit will be made and photographs illustrating the relationships between groups of features and general progress will also be taken. Archival record shots will be b/w film and colour digital shots will be used to supplement the record but will not form part of the formal archive; procedures will follow the guidance offered in The Historic England (2015) 'Digital Image Capture and File Storage: Guidelines for Best Practice' document (https://historicengland.org.uk/images-books/publications/digital-image-capture-and-file-storage/). All photographs will be in sharp focus with an appropriate depth of field. All photographs will be adequately exposed in good natural light or, where necessary, will be sufficiently well lit by artificial means. All photographs will be taken with DSLR camera of no less than 10 megapixels resolution. For maximum quality the preferred option is that the RAW (camera-specific) setting is used. RAW images will be converted to TIFF before they are deposited with Kirkleatham Museum,

7.15 All context, drawing and photographic registers will be cross-referenced.

7.16 Finds will be bagged and labelled according to their context of origin. All finds will be treated in accordance with the recommendations contained in First Aid for Finds (Watkinson & Neale 1998, 3rd edition). Advice will be taken on any finds requiring immediate specialist treatment.

Digital Rectified Photography

7.17 As an adjunct to hand drawn elevations and plans the recording of significant and complex built structures and stone and brick surfaces may be carried out using digital rectified photography to provide orthophotographic images.

7.18 Photographs must be taken at a resolution adequate to allow the creation of images at these scales. The collection and archiving of digital photographs used to create orthophotographs must follow and comply with Historic England's guidance contained in "Measured and Drawn: Techniques and practice for the metric survey of historic buildings (2nd edition)", English Heritage

2009" and Photogrammetric Applications for Cultural Heritage, Guidance for Good Practice, Historic England 2017.

7.19 In general photographs must be taken parallel or near parallel to the subject's main surface, sufficient photographs must be taken from additional viewpoints to capture any changes in level or concealed areas; photographs must have sufficient overlap (60%-80%) to ensure good interpolation by the software used; targets or scales must be used and the resulting image must be checked against the subject/archaeological features before their destruction. Ortho-photographs or copies should be annotated with relevant context numbers (and feature boundaries when not obvious) and be cross referenced in the descriptive and interpretive text in the site report.

Soil Sampling

7.20 The recording work is targeting late 19th and 20th century industrial structures. Therefore environmental soil sampling is unlikely to be required. Soil samples will only be taken from deposits that can be securely dated and/or placed in the Site's stratigraphic sequence. Samples will be collected in accordance with a strategy which recognises the aims and objectives of the project and provision will be made for on-site advice from a relevant specialist. The strategy will take note of the industrial nature of the site and as part of the strategy, sampling will be undertaken of industrial residues for examination, in accordance with the advice and the guidance offered in Historic England guidance documents: English Heritage 2011, Historic England 2015 and Historic England 2018a. Samples for environmental purposes will be no less than 40 litres (where possible). If samples are required from discrete features that are not proposed for 100% excavation, they will be taken from the unexcavated 50%. Sampling of stake-holes or small features will require the excavation of 100% of the feature.

Human Remains

7.21 Should human remains be encountered they must initially be left in situ, covered and protected. The consultant, curator and coroner should be informed immediately. Removal of human remains will only take place in accordance with a Ministry of Justice licence (which may be required under the 1857 Burials Act) and in accordance with the guidance referenced in Historic England 2018b and the guidance issued by the Advisory Panel on the Archaeology of Burials in England.

Treasure

7.22 The possibility of encountering items of treasure, as defined in the Treasure Act (1996) as amended, is noted and provision will be made for informing the necessary authorities, and providing appropriate security measures, should the need arise.

8.0 Monitoring

8.1 NEAR will be informed of the proposed start date and will be kept informed of progress throughout the field and post-excavation work. A member of Prospect Archaeology staff will monitor the excavation and post-excavation work on behalf of the client. Site monitoring visits will be co-ordinated by Prospect Archaeology.

9.0 Post-excavation processing

9.1 Finds and records will be returned to the contracted unit for processing. Records will be checked and entered into a computerised database. All finds will be treated in accordance with current HE best practice, including 'Investigative Conservation'. Finds will be cleaned (where appropriate) and marked and boxed for transfer to the relevant specialists according to accepted principles and in line with appropriate period/ material guidelines. Environmental samples will be washed and assessed by an environmental archaeologist.

9.2 Where material suitable for scientific dating is recovered, sufficient dating will be undertaken to meet the aims of the project.

9.3 For all categories of material recovered, including finds, palaeo-environmental, industrial and other specialist samples, an assessment by an appropriately experienced specialist will be undertaken.

9.4 Environmental samples will be processed and sorted, and any artefacts recovered provided to the appropriate specialist(s) to be considered alongside the hand-recovered material. Basic stratigraphic information will be supplied to the project specialists.

9.5 Where assessment has identified the need for further analysis and no further mitigation work has been secured within 12 months of the completion of the evaluation reporting (or as agreed with the local planning authority as advised by NEAR), this will be completed drawing upon the contingency allowed, representing 10% of post-excavation costs.

9.6 All ferrous objects and a selection of non-ferrous objects (including all coins), will be x-radiographed in accordance with the guidance offered in Historic England 2006.

10.0 Reporting

10.1 A report will be produced within 4 weeks of the completion of the initial recording fieldwork and provided digitally (pdf format) to Prospect Archaeology for distribution. The report will be prepared in accordance with the Chartered Institute for Archaeologists' guidelines.

10.2 Prospect Archaeology will distribute copies of the report to appropriate organisations and individuals. The whole document should be provided as a complete text and image file in pdf format. Prospect Archaeology shall ensure that a full digital copy of the report (on CD or otherwise) is supplied to the Redcar & Cleveland HER within three months of being completed.

10.3 The report will contain the following sections:

- A non-technical summary of the findings
- Description of the methodology employed and explanation of any agreed variations to the brief and justification for any analyses not undertaken
- Aims and objectives, including specific research objectives
- A stratigraphic descriptive account of the results from each area / structure investigated

- Discussion of the results and their significance in relation to local, regional and national sites, as appropriate
- Conclusions
- A catalogue and brief post-excavation analysis of each category of artefacts recovered during excavation, including the potential for further analysis
- An index to the project archive, including details of its location
- Illustrations and plates as appropriate. Illustrations to be included are: a detailed location map, a detailed site plan showing all trenches, all trench plans and sections and detailed plans and sections of features, select artefact images; an overall site plan showing all (phased) archaeological features will also be included.
- References and bibliography of all sources used; and
- An appendix containing a list and summary descriptions of all contexts recorded.

10.4 Prospect Archaeology will require regular updating on the results of the watching brief, with no less than weekly progress reports to be submitted. This is to allow rapid decisions on the need for further / extended recording work in different parts of the Site.

11.0 Publication

11.1 Formal publication is expected to take place following a mitigation phase of fieldwork; should such work not take place within a reasonable timeframe, e.g. 12 months from completion of evaluation reporting (or as agreed with the local planning authority as advised by NEAR), then the need for and scope of a formal publication of the results will be discussed and agreed with Prospect Archaeology, the client and the local planning authority as advised by NEAR.

12.0 Health and Safety

12.1 All Site work will be carried out in accordance with the relevant current Health and Safety legislation. A copy of the Health and Safety Document is available on request and a Risk Assessment will be prepared prior to commencement of work on Site.

13.0 Insurance

13.1 PA and its sub-contractors are fully covered by Employers and Public Liability and Professional Indemnity insurances, copies of which are available for inspection on request.

14.0 Archiving

14.1 The Site archive will be prepared in accordance with the UKIC's document *Guidelines for the Preparation of Excavation Archives for Long Term Storage* and the CIfA's *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives 2014*.

14.2 Ultimately the ordered and checked archive, along with artefacts, ecofacts and relevant documents will be combined with the final site archive and deposited with the Kirkleatham Museum. The museum will be contacted prior to the commencement of fieldwork. Thereafter the museum will be involved in discussions with regard to selection and retention of archive material prior to archive deposition, through completion and submission of appropriate forms. This excludes finds that are subject to the Treasure Act 1996 (and later amendments), the deposition of which will be determined separately. A budget to cover the museum's deposition charge will be

allowed for in the project costs to the client. The Museum will be contacted for an accession number by the contractor at the appropriate time. On completion, confirmation of deposition will be supplied to NEAR.

14.3 An electronic copy of the archive will be deposited with ADS

15.0 Programme & Staffing

15.1 Fieldwork will be undertaken by a team from Pre-Construct Archaeology. A full list of specialists to be used will be provided prior to fieldwork commencing, for discussion and agreement with Prospect Archaeology and the local planning authority as advised by NEAR. Other specialists found to be necessary during the life of the project will be discussed and agreed on a case by case basis.

15.2 The name of the responsible archaeologist on site and his / her CV / biography (indicating where relevant experience of working on sites of a similar nature) shall be communicated to NEAR at least five days before any works to which this WSI relates are first commenced on site.

15.3 The archaeologist(s) appointed to carry out the work specified will by commencing work be deemed to be working according to the requirements of this WSI, unless the archaeologist(s) in question first agree a variation of this WSI with the local planning authority as advised by NEAR.

16.0 References

Historic England (2006) *Guidelines on the X-radiography of archaeological metalwork*

English Heritage 2011 (second edition) *Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation*. Centre for Archaeology Guidelines

Historic England, 2015 *Archaeometallurgy Guidelines for Best Practice*

Historic England, 2018a *Science for Historic Industries Guidelines for the Investigation of 17th- to 19th-century Industries*

Historic England, 2018b *The Role of the Human Osteologist in an Archaeological Fieldwork Project*

17.0 Figures

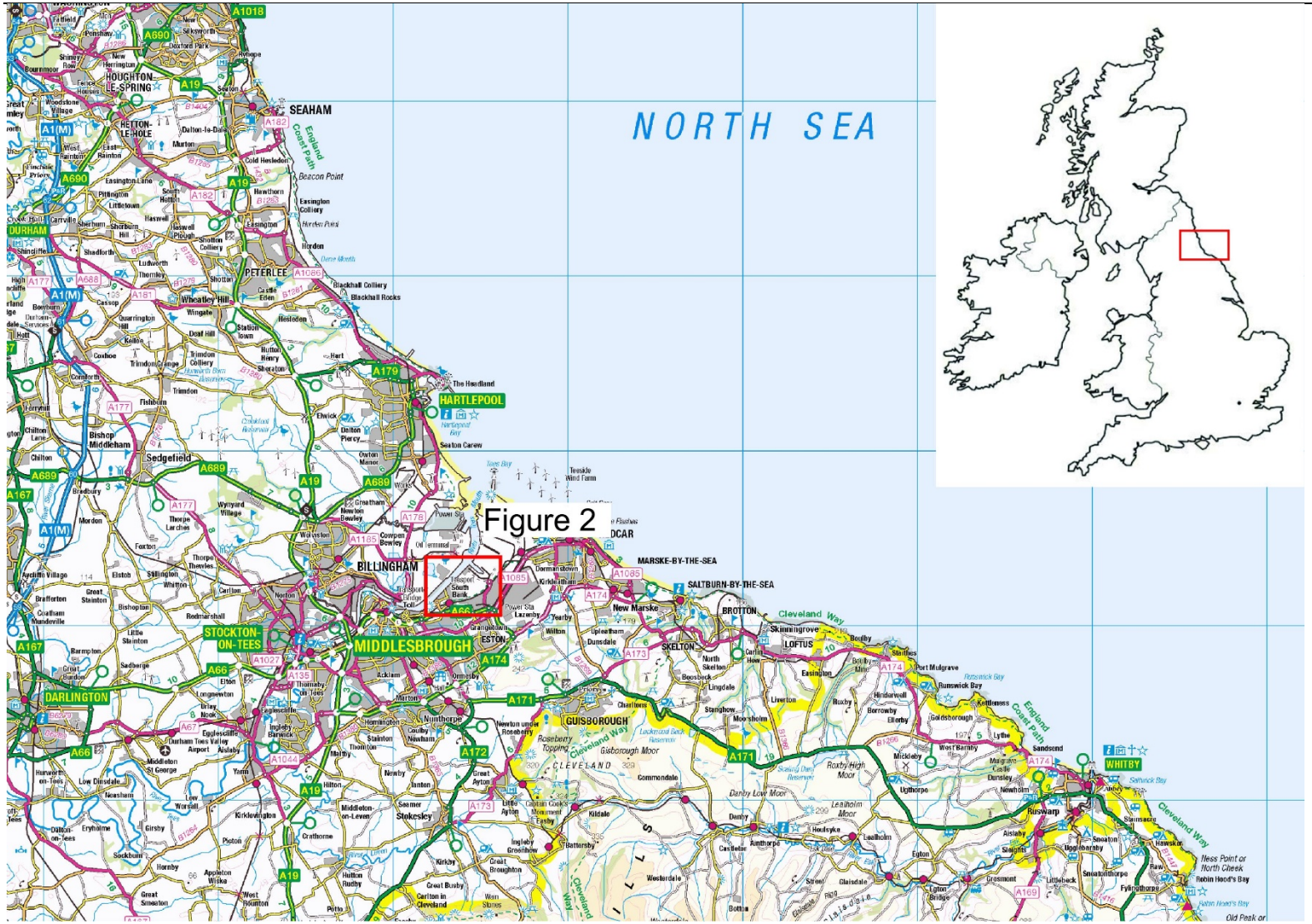


Figure 1: Site Location

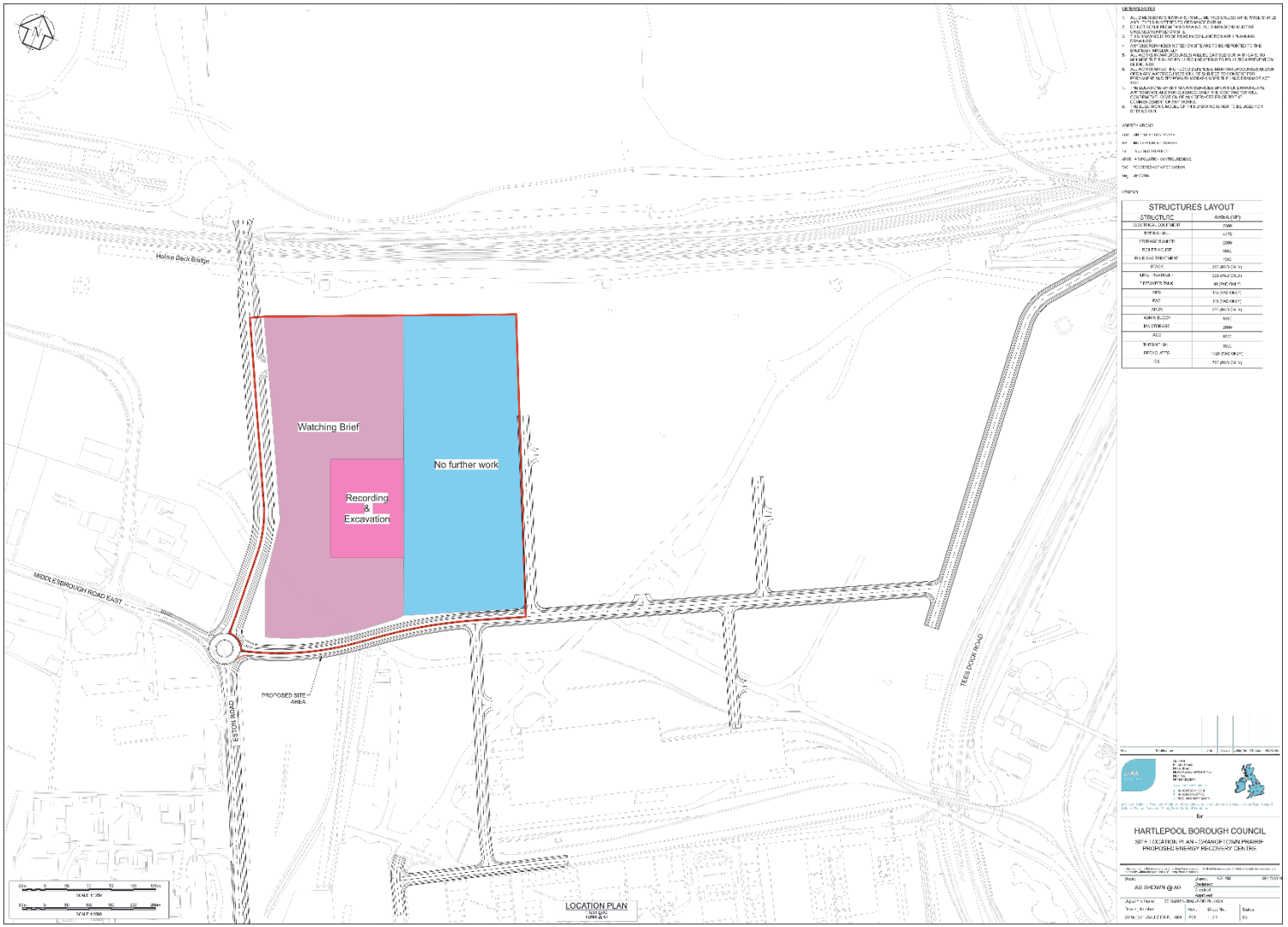


Figure 2: Intervention areas

Appendix K3: Correspondence between Nansi Rosenberg and Neil Cookson (NEAR) 10 – 12 Nov 2020

From:	Nansi Rosenberg
To:	Neil Cookson
Subject:	RE: Further sites on Teesside
Date:	12 November 2020 14:05:00
Attachments:	STDC north 1895.png STDC south 1895.png

Hi Neil

Thanks for getting back to me. I only received the HER data last night so I've not had a chance to go through it yet but I've attached a quick overview of the sites on the 1895.

There are a couple of tramways and the rail line cutting through the Foundry site. Do you consider these of sufficient potential to scope the archaeology in? As I said, there is likely to have been considerable impact from the later foundry development to have removed any substantial remains.

The Lackenby site only appears to have some quarrying and Eston Grange present. I don't expect anything to survive the later development and the quarrying at least wouldn't appear significant.

Please note these two plans are just for quick reference and won't be submitted in this form in the reports.

All the best
Nansi

From: Neil Cookson <nearlytd@gmail.com>
Sent: 12 November 2020 13:10
To: Nansi Rosenberg <nansi@prospectarc.com>
Subject: Re: Further sites on Teesside

Hello Nansi,

Thank you for your email.

I have only two comments.

1. If the map regression shows an undeveloped site until the early 20th century followed by extensive development for heavy industry, I agree that the potential for assets of significance is very low. So, provided the map regression evidence is provided as part of the application/EA (so enabling the planning officer to accept the reasoning) in that sense the sites can be 'scoped out'. But this would not technically be a scoping out in the formal sense, as the conclusion is arrived at from some (positive) assessment of the historical data.

2. Related to the above point, both sites (Foundry and Lackenby) have HER entries that record iron and steel works (Lackenby) and tramways (Foundry) said to be recorded on the 2nd edition OS of 1895. How do you consider these entries (which purport to record pre-20th century features)?

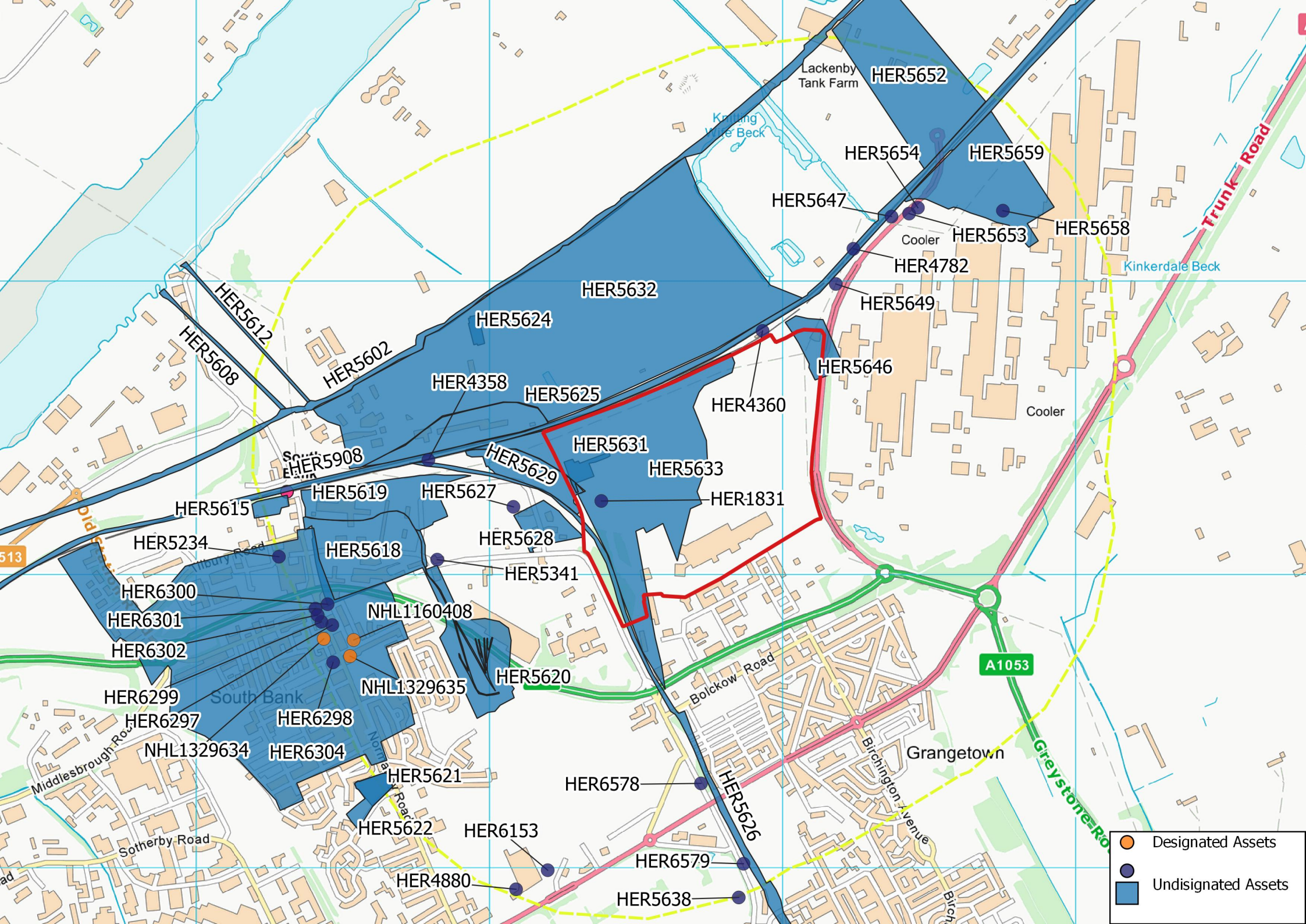
Kind regards,

Neil

On Tue, 10 Nov 2020 at 15:03, Nansi Rosenberg <nansi@prospectarc.com> wrote:

> Hi Neil
>
> I hope you're well.
>
> I've been appointed to prepare DBAs / ES chapters on a number of other sites for STDC. One is a slightly different redline of the Prairie site (to include the torpedo ladle repair shop) but the others are as yet un-assessed. The attached overview plan shows the locations of the sites along with the previously assessed ones (South Bank & Prairie, in yellow).
>
> I've requested the HER data but from my initial review of the historic maps, I'm inclined to propose we scope out Lackenby and Foundry from the environmental assessment as they were undeveloped until the 1920s / 1970s respectively and then the weight of industrial development from that date onwards would suggest the potential for medieval or earlier survival would be negligible. The other sites have greater potential as follows:
>
> - Dorman Point – as per Prairie (Cleveland Iron & Steel Works, Eston Iron Works)
> - Steel House – 'Ancient salt hills' & a 'camp' on early OS maps. Depends on groundworks prior to / during construction of Steel House in 1960s but either side of the Steel House could have potential
> - Long Acres – Redcar Iron Works from late 19th century. Impacts on setting of listed buildings at Marsh Farmhouse
>
> I would still prepare the desk-based assessments as part of the scoping exercise for all five, just exclude Lackenby and Foundry from the EIAs for those sites. Let me know what you think.
>
> All the best
> Nansi

Appendix K4: Designated and Non-Designated Heritage Assets Plan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HER6298
NHL1329634
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HER5621
HER5622
HER6153
HER4880
HER6578
HER5626
HER6579
HER5638
Lackenby Tank Farm
Knilling Wike Beck
Cooler
Kinkerdale Beck
Trunk Road
Cooler
Old Stockton Road
Tilbury Road
South Bank
Middlesbrough Road
Sotherby Road
Bolckow Road
A1053
Grangetown
Birchington Avenue
Designated Assets
Undisignated Assets