

Archaeological Desk-Based Assessment  
In advance of Development of Land at the  
Stonebridge Stadium, Stonebridge Road,  
Northfleet, Kent

NGR: 561450 174850



Report for  
Faithorn Farrell Timms LLP

Revised 21/05/2015 and updated 24/07/2015

**SWAT. ARCHAEOLOGY**

Swale and Thames Archaeological Survey Company

School Farm Oast, Graveney Road

Faversham, Kent

ME13 8UP

Tel; 01795 532548 or 07885 700 112

[www.swatarchaeology.co.uk](http://www.swatarchaeology.co.uk)

<i>List of Figures</i> .....	<i>ii</i>
<i>List of Plates</i> .....	<i>ii</i>
1. SUMMARY.....	3
2. INTRODUCTION.....	6
2.1 Planning Background .....	7
2.2 The Proposed Development .....	8
2.3 Projects Constraints .....	9
2.4 Geology and Topography.....	9
3. AIMS AND OBJECTIVES.....	9
3.1 Introduction .....	9
4. METHODOLOGY .....	10
4.1 Desk-Based Assessment.....	10
4.1.1 Archaeological databases .....	10
4.1.2 Historical documents .....	11
4.1.3 Cartographic and pictorial documents .....	11
4.1.4 Aerial photographs .....	11
4.1.5 Geotechnical information .....	10
5. ARCHAEOLOGICAL AND HISTORICAL DEVELOPMENT .....	13
5.1 Introduction .....	13
7. IMPACT ASSESSMENT .....	16
7.1 Existing Impacts .....	16
7.2 Proposed Impacts .....	16
8. MITIGATION .....	16
9. OTHER CONSIDERATIONS .....	17
9.1 Archive .....	17
9.2 Reliability/limitations of sources .....	17
9.3 Copyright.....	17
10. ACKNOWLEDGEMENTS .....	17
11. REFERENCES & BIBLIOGRAPHY .....	18
Appendix 1: QUEST Report	

## List of Figures

- Fig.1 O.S. map (1865)
- Fig.2 O.S. map (1872)
- Fig.3 O.S. map (1897)
- Fig.4 O.S. map (1907-09)
- Fig.5 O.S. map (1935)
- Fig.6 O.S. map (1938-39)
- Fig.7 O.S. map (1952)
- Fig.8 O.S. map (1970-73)
- Fig.9 O.S. map showing borehole locations
- Fig.10 KCC HER data

## List of Plates

- Plates 1-3. Google Earth 1940-2013
- Plate 4. South-west stand
- Plate 5. South stand
- Plate 6. South stand
- Plate 7. Inside south-west stand
- Plate 8. South stand
- Plate 9. South stand
- Plate 10. South stand
- Plate 11. South stand
- Plate 12. Exterior view of stadium
- Plate 13. Exterior view of stadium

## **Archaeological Desk-Based Assessment in Advance of Development of Land at Stonebridge Stadium, Stonebridge Road, Northfleet, Kent**

### **1 SUMMARY**

SWAT Archaeology has been commissioned by Faithorn Farrell Timms LLP to carry out an archaeological desk-based assessment of land at the Stonebridge Stadium, Northfleet in Kent. The assessment is in support of a planning application.

This Desk Based Assessment examines the wide variety of archaeological data held by Kent County Council and other sources. This data is reviewed and commented on. In addition the results of the recent geoarchaeological investigations by Quaternary Scientific (QUEST) have been summarised and incorporated.

QUEST writes that six further boreholes are recommended but that archaeological excavation is not recommended due to the depth of the Pleistocene land surface at 8m below present ground level.

The QUEST report states that:

*'The recording of the Pleistocene deposits and associated probable in situ flint artefacts are clearly of archaeological significance, whilst the nature and thickness of the Holocene alluvial sequence has the potential to provide a detailed reconstruction of past environments (e.g. landscape, vegetation, hydrology and human activity) through the assessment/analysis of palaeoecological remains (e.g. pollen, plant macrofossils and insects) and radiocarbon dating. As a consequence of this, further boreholes are recommended on the site, both to clarify and enhance our knowledge/understanding of the sub-surface stratigraphy. Archaeological excavation is not recommended due to the depth to the Pleistocene land-surface (>8m).'*

Cartographic research shows that most of the stadium footprint is located in an area that in 1865 were Old Clay Pits (Fig.2) which suggests very little, if any, upper strata of later archaeology will survive under the stadiums footprint.

The Gravesham Core Strategy under Heritage and Archaeology notes that:

*'the area around Robin's Creek (outflow of the Ebbsfleet into the Thames) was the site of a medieval watermill later converted to grind cement in the 1790s, Portland cement was later invented here and Aspdin's Kiln (Scheduled Monument) and other features of heritage interest are likely to remain'.*



Wendy Rogers Senior Heritage Officer KCC notes that the general area is of high archaeological potential for Palaeolithic, Mesolithic/Neolithic and post medieval archaeology. This is highlighted in the QUEST report where C R Batchelor notes that:

*The Pleistocene deposits present on the sides of the Ebbsfleet Valley are considered of national importance, and in places are associated with rich archaeological remains (Wenban-Smith et al., 2006; Bates and Stafford, 2013). The archaeological potential of the alluvial deposits within the valley itself are less well known, although Mesolithic, Neolithic, Bronze and Iron Age remains have been recorded (Bates and Stafford, 2013). Indeed, during the recent the High Speed 1 and South Thameside Development Route 4 site excavations, in situ early Neolithic flint scatters were been recorded on a former land-surface (Wenban-Smith et al. forthcoming in Bates and Stafford, 2013).*

*The Pleistocene deposits present on the sides of the Ebbsfleet Valley are considered of national importance, and in places are associated with rich archaeological remains (Wenban-Smith et al., 2006; Bates and Stafford, 2013). The archaeological potential of the alluvial deposits within the valley itself are less well known, although Mesolithic, Neolithic, Bronze and Iron Age remains have been recorded (Bates and Stafford, 2013). Indeed, during the recent the High Speed 1 and South Thameside Development Route 4 site excavations, in situ early Neolithic flint scatters were been recorded on a former land-surface (Wenban-Smith et al. forthcoming in Bates and Stafford, 2013).*

The Gravesham Core Strategy, the QUEST report, the KCC HER data and the KCC Heritage Officer's pre-application comments have been reviewed and the archaeological sensitivities in the locality considered and listed (Section 4.0) but as the proposed works are contained within the curtilage of the football stadium and the proposed development is to be a piled construction of less than 2% impact (well within English Heritage recommendations), and the ring beam foundations set mostly within made ground there will be little impact on the potential archaeological resource.

The additional six boreholes requested by QUEST are recommended but that archaeological excavation is not recommended due to the depth of the Pleistocene land surface at 8m below present ground level. National guidelines are quite clear that wherever possible 'preservation in situ' has to be applied.

The present development plans will have little impact on any below ground archaeological strata which indicates the strategy for archaeological investigation should be focused on building recording and with the six additional borehole

investigations as requested by QUEST. In addition it may be politic to have a Archaeological Watching Brief in place on any areas of potential archaeology.

### **History of the site**

The Ordnance Survey map of 1865 and 1872 show the site of the future stadium is 'Old Clay Pits' (32 & 31) whilst to the east are 'Chalk Pits'. 150m to the north beyond 'Botany Bay' is a corn windmill c.1856 (TQ 67 1002), and 160m to the east kilns (TQ 67 SW 77) and a cement mill. The cement mills were established on the site in 1834 and may have been on the site of James Parker's Roman cement works dating from 1792. Aspdin's Kiln is part of this complex and is a Scheduled Monument that dates from c.1845. The HER states that: 'A circular beehive shaped kiln.....A tablet set in modern brick-work to the SE of the kiln says "The earliest known Portland cement kiln built and worked by William Aspdin c.1845".'

The Ebbsfleet is a natural watercourse with a sluice at the bridge called 'Stone Bridge'. To the north of the site and beyond the present plans for development but within the curtilage is a double banked ditch feeding into the Ebbsfleet (Figs. 1 & 2).

By 1897 the area of the future stadium had now been backfilled. The cement works have expanded and the corn windmill is now disused. Ebbsfleet stream is now contained in a conduit but still tidal to Stone Bridge. The Gravesend to Northfleet tramway (1883- 1929) has been established and remains of the track may still be in situ under the Phase 1C of the proposed development. The Ebbsfleet is still tidal to 'Stone Bridge' and is located outside the proposed development area of Phase 1B (Fig. 3).

On the 1907-1909 Ordnance Survey map the area of the football ground is now defined with a new building (covered stand?) located on the north-east side. On the west side a branch of the Gravesend to Northfleet tramway has been established. It seems the Ebbsfleet is no longer tidal but controlled by a sluice gate and 'Stone Bridge' is no longer a bridge (Fig. 4).

By 1935 the football pitch is shown on the OS map with a larger building on the north-east side and an additional covered stand facing it on the south side and the tramway on the west side is no longer shown (Fig. 5).

On the 1938-1939 OS map there is little change but on the Google Earth 1940 aerial photograph terracing can be seen on the south end of the pitch (Fig. 6 & Plate 1).

On the 1952 Ordnance Survey map concrete terracing can be seen on all sides of the football pitch and with an additional covered stand on the south side with exterior stairs on the south side of the building (Fig.7).

The Ordnance Survey map of 1961 shows little difference but the Google Earth 1960 aerial photograph shows the stand on the south-west side has been replaced by a much longer stand and the stand on the south side has been extended to the width of the pitch. It is of some interest that the OS map issued in 1961 had not been updated (Fig. 8 & Plate 2).

By 1973 the OS map shows the football ground as it appears today with three stands, concrete terracing, toilets, fast food outlets and offices. Home to Ebbsfleet United FC the ground had a capacity of 5,011 standing and 500 seated fans.

## **2 Introduction**

The Desk-Based Assessment was commissioned by Faithorn Farrell Timms LLP in order to supplement a planning application for the development of the site at the Stonebridge Stadium situated in Stonebridge Road.

KCC Heritage has indicated it will require an Archaeological Desk-based Assessment Report to clarify the extent of known archaeology on the development site and its environs as part of the planning process.

This desktop study has been produced in line with archaeological standards, as defined by the Institute for Archaeologists (revised 2011). A desktop, or desk-based assessment, is defined as being:

*“a programme of study of the historic environment within a specified area or site on land, the inter-tidal zone or underwater that addresses agreed research and/or conservation objectives. It consists of an analysis of existing written, graphic, photographic and electronic information in order to identify the likely heritage assets, their interests and significance and the character of the study area, including appropriate consideration of the settings of heritage assets and, in England, the nature, extent and quality of the known or potential archaeological, historic, architectural and artistic interest. Significance is to be judged in a local, regional, national or international context as appropriate”.*  
(CIfA 2011)

### *Policy and Research Frameworks*

This report has been prepared in accordance with national and regional policy regarding heritage assets and with reference to research frameworks.

The National Planning Policy Framework (March 2012)

It is worth quoting from this planning document, in particular Policy 12: 126, 128.

## 12. Conserving and enhancing the historic environment

126. Local planning authorities should set out in their Local Plan a positive strategy for the conservation and enjoyment of the historic environment, including heritage assets most at risk through neglect, decay or other threats. In doing so, they should recognise that heritage assets are an irreplaceable resource and conserve them in a manner appropriate to their significance. In developing this strategy, local planning authorities should take into account:

- the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;
- the wider social, cultural, economic and environmental benefits that conservation of the historic environment can bring;
- the desirability of new development making a positive contribution to local character and distinctiveness; and
- opportunities to draw on the contribution made by the historic environment to the character of a place.

128. 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 impact 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.

### *Local Policy Framework*

Local planning policy is set out in the Gravesham Local Plan Core Strategy (September 2014) and saved policies from the Gravesham Local Plan First Review (1994). Gravesham Local Plan Core Strategy Policy CS20 'Heritage and the Historic Environment' states that the Council will accord a high priority towards the preservation, protection and enhancement of its heritage and historic environment as a non-renewable resource, central to the regeneration of the area and the reinforcement of sense of place. Particular attention in this regard will be focused on those heritage assets most at risk through neglect, decay or other threats. Securing viable, sustainable and appropriate futures for such assets at risk will need to be reconciled with the sensitivity to change that many present'.

### *Research Frameworks*

The national and regional policy outlined above should be considered in light of the non statutory heritage frameworks that inform them.

English Heritage has issued detailed guidance on the *Setting of Heritage Assets* (2011). This guidance is based on principles and guidance already issued by English Heritage in the *Historic Environment Planning Practice Guide* (2010), and *Conservation Principles: Policies and Guidance for the Sustainable Management of the Historic Environment* (2008).

It provides a framework for assessing impacts based on the identification of individual asset's cultural significance and the relationship between that and its surroundings followed by assessment of the degree to which change in the surroundings affects significance.

*This Desk-Based Assessment therefore forms the initial stage of the archaeological investigation and is intended to inform and assist in decisions regarding archaeological mitigation for the proposed development and associated planning applications.*

## **2.2 The Proposed Development**

The proposed development will comprise of a planning application for:

1. A new main stand to the Stonebridge Road elevation (Phase 1A).
2. The demolition of the 'Plough End' of the ground and construction of a new stand (Phase 1B).
3. The demolition of the 'Swanscombe End' of the ground and construction of a new stand (Phase 1C)
4. The demolition and construction of a new stand to replace the existing main stand (Phase 2)

## **2.3 Project Constraints**

No project constraints were encountered during the data collection for this assessment.

## **2.4 Geology and Topography**

The Geological Survey of Great Britain (1:50,000) Sheet 271-Dartford Solid Drift Edition shows that the geology directly underlying the majority of the site to comprise of Superficial Alluvium –comprising clay, silt, sand and gravel with Head Deposits present towards the southern boundary. Underlying bedrock in the area is highlighted as Seaford Chalk Formation and Newhaven Chalk Formation materials respectively. Geological maps are shown in some detail in the EPS geological report

‘Phase I & II Ground investigation Report 14<sup>th</sup> October 2014’. The reports findings on six boreholes (Fig. 9) is itemised below:

WS1	Made ground to 0.95m. Possible made ground to 2.00m
WS2	Made ground to 1.00m. Possible made ground to 2.00m
WS3	Made ground to 1.00m. Possible made ground to 3.80m
WS4	Made ground to 0.40m. Probable reworked ground to 3.90m
WS5	Made ground to 1.30m. Sandy silty clay to 1.80m
BH 1	Made ground to 0.80m.

The geological desk study identified a number of plausible risks primarily associated with the interaction of future site users and construction workers and EPS recommended that: ‘The ground conditions encountered across the site are not considered to be appropriate for the use of conventional spread foundations due to low strength and variable made ground, re-worked ground and alluvium instead a piled solution is more likely to be suitable. A suspended ground floor construction is recommended due to the thickness of made ground encountered (EPS 2014: 2). In addition Quaternary Scientific (QUEST) undertook borehole investigation in May 2015 and the results are attached to this report.

### **3 AIMS AND OBJECTIVES**

#### **3.1 Introduction**

The Desk-Based Assessment was commissioned by Faithorn Farrell Timms LLP in order to supplement a proposed planning application for the development of land at the Stonebridge Stadium at Stonebridge Road, Northfleet, Kent.

### **4 METHODOLOGY**

#### **4.1 Desk-Based Assessment**

##### *4.1.1 Archaeological databases*

The local Historic Environment Record (HER) held at Kent County Council has provided on request (12/01/2015) data on sites and finds within both the proposed development area and the surrounding area of Northfleet, Kent.

The Portable Antiquities Scheme Database (PAS) and the Archaeology Data Service Online Catalogue (ADS) were also researched for any published archaeological sites or artefacts found in the vicinity of the study area. The search from all these data sources was carried out within a 300m radius of the proposed development site but also include other important KCC HER sites in the vicinity of the Stonebridge Stadium.

TQ 67 SW 298. Early Medieval Tidal Watermill, Ebbsfleet Valley. A well preserved example of a tidal watermill dating between 684- 720AD.

TQ 67 SW 303. Romano- British Enclosure site and hard at Ebbsfleet Sports Ground.

TQ 67 SW 1188. Barrage Balloon site located 75m to the west of the PDA

TQ 67 SW 1197. Air raid shelter located just to the south-west in Stonebridge Road

TQ 67 SW 414. 13 possible bedding trenches dating from c.1875-1900 some 95m to the west of the PDA.

TQ 67 SW 1196. Air raid shelter in Huggins College 60m to the south of the PDA

TQ 67 SW 1172. Second World War defended locality 50m to the south of the PDA

TQ 67 SW 1198. Battle Headquarters at Grove House (now demolished) and 80m to the south of the PDA

TQ 67 SW 200. Territorial Army Centre

TQ 67 NW 1002. Windmill c.1856 the site located 150m to the north of the PDA

TQ 67 SW 633. Gravesend to Northfleet Tramway 1883-1929 located adjacent to the PDA

TQ 67 SW 77. Cement kiln built by William Aspdin in the 1830/40's some 160m to the east of the PDA (Scheduled Monument 1004227).

#### 4.1.2 *Historical documents*

Historical documents, such as charters, registers, wills and deeds etc were not relevant to this specific study.

#### 4.1.3 *Cartographic and pictorial documents*

A map regression exercise was undertaken during this assessment. Research was carried out using resources offered by Kent County Council, the Internet and Ordnance Survey Historical mapping (Figs. 1-10).

#### 4.1.4 *Aerial photographs*

The study of the collection of aerial photographs by Google Earth was consulted (Plates 1-3).

#### 4.1.5 *Geotechnical information*

Geological maps are shown in some detail in the EPS geological report 'Phase I & II Ground investigation Report 14<sup>th</sup> October 2014'. The reports findings on six boreholes (Fig. 9) is itemised below:

WS1	Made ground to 0.95m. Possible made ground to 2.00m
WS2	Made ground to 1.00m. Possible made ground to 2.00m
WS3	Made ground to 1.00m. Possible made ground to 3.80m
WS4	Made ground to 0.40m. Probable reworked ground to 3.90m

WS5	Made ground to 1.30m. Sandy silty clay to 1.80m
BH 1	Made ground to 0.80m.

In May 2015 QUEST undertook an investigation with two boreholes (report attached Appendix 1). QUEST has recommended an additional six boreholes and a final report to an accepted format released. The present interim report (Appendix 1) states:

*'The British Geological Survey shows the site underlain by alluvium, described as comprising clay, silt, sand and gravel deposits, resting on chalk bedrock. In actual fact, geotechnical, geoarchaeological and archaeological investigations have revealed that the sequence includes a greater variety and complexity of deposits, including: (1) organic and inorganic silts and clays, tufa, reed and wood peats all of Holocene age, overlying (2) sands, chalky solifluction and fluvial gravel deposits of Pleistocene age, resting on (3) chalk bedrock.*

*Radiocarbon dating of the Holocene alluvial deposits at the High Speed 1 and South Thameside Development Route 4 site ca. 650m to the south of the Stadium has revealed that in some cases, these deposits accumulated from the early Mesolithic through to the Saxon period (Bates & Stafford, 2013; Wenban-Smith et al., forthcoming).*

*Recent geotechnical investigations appear to confirm the presence of similar deposits at the Stadium. In October 2014, one cable percussion borehole and five window samples were put down around the perimeter of the stadium by Environmental Protection Strategies (October 2014; Figure 1). Only the cable percussion borehole provided a complete record of the sedimentary sequence, indicating the presence of chalk bedrock at 16m bgl (ca. -12.75m OD) overlain by river terrace gravels and gravelly chalky clay of likely Pleistocene age to 12m and 8.45m bgl respectively (ca. -8.40 and -4.7m OD), then dominantly organic-rich alluvium including peat to 0.8m bgl (ca. 2.45m OD), capped by Made Ground. The window samples reached to 4m bgl, much of which consisted of Made or Reworked Ground.*

*The different stratigraphic units recorded are significant as they represent different environmental conditions that would have existed in a given location. For example, soil and peat represent former terrestrial or semi-terrestrial land-surfaces, whilst fine to medium-grained sediments such as sands, silts and clays could represent fluvial environments. Thus by studying the sub-surface deposits, it is possible to build an understanding of the former landscapes and environmental changes that took place over space and time. Furthermore, the former land-surfaces represent potential areas that might have been utilised or even occupied by prehistoric people. The Pleistocene deposits present on the sides of the Ebbsfleet Valley are considered of national importance, and in places are associated with rich archaeological remains (Wenban-Smith et al., 2006; Bates and Stafford, 2013). The archaeological potential*



*of the alluvial deposits within the valley itself are less well known, although Mesolithic, Neolithic, Bronze and Iron Age remains have been recorded (Bates and Stafford, 2013). Indeed, during the recent the High Speed 1 and South Thameside Development Route 4 site excavations, in situ early Neolithic flint scatters were been recorded on a former land-surface (Wenban-Smith et al. forthcoming in Bates and Stafford, 2013).*

*The sedimentary sequences at the Stonebridge Stadium thus have the potential to provide a long and detailed record of the environmental conditions at the site and its surroundings, potentially including evidence for human activity. The aim of the geoarchaeological borehole investigations was therefore to clarify the nature of the sub-surface stratigraphy across the site by fulfilling the following objectives: (1) obtaining a continuous set of samples from two select locations towards the south-western and north-western corners of the stadium, and (2) to use the stratigraphic data from the new locations, and existing records to produce a model of the major depositional units across the site (QUEST May 2015).*

## 5 ARCHAEOLOGICAL AND HISTORICAL DEVELOPMENT

### 5.1 Introduction

Prehistoric	Palaeolithic	c. 500,000 BC – c.10,000 BC
	Mesolithic	c.10,000 BC – c. 4,300 BC
	Neolithic	c. 4,300 BC – c. 2,300 BC
	Bronze Age	c. 2,300 BC – c. 600 BC
	Iron Age	c. 600 BC – c. AD 43
Romano-British		AD 43 – c. AD 410
Anglo-Saxon		AD 410 – AD 1066
Medieval		AD 1066 – AD 1485
Post-medieval		AD 1485 – AD 1900
Modern		AD 1901 – present day

**Table 1 Classification of Archaeological Periods**

5.1.1 The archaeological record for Northfleet is recognised as a major archaeological resource of international importance. Archaeological investigations suggest that Prehistoric activity and Bronze Age settlement have been found in Northfleet and its immediate surrounds.

Prehistoric activity in the vicinity of the PDA has been highlighted by Wendy Rogers, Senior Archaeological Officer KCC who has written that ‘there are two designated heritage assets within c.500m of the development site, one associated with Bakers Hole Palaeolithic site to the south-west’.

In addition the PDA lies adjacent to an area of Palaeolithic potential identified during the Thames Estuary Aggregates Survey.

*The following section of the assessment will focus on the archaeological and historical development of this area, placing it within a local context. Each period classification will provide a brief introduction to the wider landscape. Time scales for archaeological periods represented in the report are listed on page 13 in Table 1.*

#### 5.1.2 Scheduled Monuments, Listed Buildings Historic Parks & Gardens and Conservation Areas

There is one Scheduled Monument (Aspdin’s Kiln), and no Listed Buildings, Historic Parks & Gardens in the near vicinity of the Proposed Development Area (PDA) and the PDA is not in a Conservation Area.

#### 5.1.3 Prehistoric (Palaeolithic, Mesolithic, Neolithic and Bronze Age)

The Palaeolithic represents the earliest phases of human activity in the British Isles, up to the end of the last Ice Age. Evidence of prehistoric settlement within the county of Kent can be dated back to the Palaeolithic period and can be found around the River Gravels of the Thames.

Just outside the Assessment Area Palaeolithic artefacts were found at Baker’s Hole situated to the south-west of the PDA.

The Mesolithic period reflects a society of hunter-gatherers active after the last Ice Age. The Kent HER has no previous record of archaeological evidence from this

period within the Assessment Area. However, recent borehole investigations by QUEST retrieved Mesolithic artefacts from the PDA (QUEST May 2015).

The Neolithic period, the beginning of a sedentary lifestyle based on agriculture and animal husbandry is not represented within the assessment area.

The Bronze Age, a period of large migrations from the continent and more complex social developments on a domestic, industrial and ceremonial level is not represented in the assessment area.

#### 5.1.4 Iron Age

The Iron Age is, by definition a period of established rural farming communities with extensive field systems and large 'urban' centres and hillforts. That there was an Iron Age presence at Northfleet there is no doubt. However, there are no reports of Iron Age activity in the Assessment Area.

#### 5.1.5 Romano-British

The Romano-British period is the term given to the Romanised culture of Britain under the rule of the Roman Empire, following the Claudian invasion in AD 43, Britain then formed part of the Roman Empire for nearly 400 years. Activity in the Assessment Area from the Roman period is a Romano-British enclosure site and possible landing place at Ebbsfleet Sports Ground ((TQ 67 SW 303).

#### 5.1.6 Anglo-Saxon

The Anglo-Saxon period is not represented in the Assessment Area.

#### 5.1.7 Medieval

The medieval period is represented by an Early Medieval Tidal Watermill found at Ebbsfleet (TQ 67 SW 298).

#### 5.1.8 Post-Medieval

The Post Medieval period is represented within the assessment area by pit features found at Galley Hill Road (TQ 67 SW 414).

#### 5.1.9 Modern

Modern archaeology within the assessment area has been limited to remains from the Second World War with various road blocks and defences (TQ 67 SW 1196, TQ 67 SW 1172, TQ 67 SW 1188).

#### 5.1.10 Cartographic Sources and Map Regression

A limited map regression exercise on large scale Ordnance Survey maps has been carried out on the proposed development area. These historical Ordnance Survey maps have been viewed and have shown that the site sits for the most part on deep quarries (Figures 1-8).

### 6 ARCHAEOLOGICAL POTENTIAL

#### 6.1 Palaeolithic, Mesolithic, Neolithic and Bronze Age

The potential for finding remains (at depth) that date prior to the Iron Age within the confines of the proposed development is therefore considered **high**.

#### 6.2 Iron Age

The potential for finding remains dating to the Iron Age within the confines of the development site is **unknown**.

#### 6.3 Romano-British

The potential for Romano-British archaeology is considered to be **unknown**.

#### 6.4 Anglo-Saxon

The potential for finding remains dating to the Anglo-Saxon period on the development site are considered as **unknown**.

#### 6.5 Medieval

The potential for finding remains dating to the medieval period are considered as **unknown**.

## 6.6 Post-Medieval and Modern

Evidence for post-medieval and modern occupation in the area is abundant. The potential for finding remains dating to the post-medieval and modern period are considered as **high**.

## 7 IMPACT ASSESSMENT

### 7.1 Existing Impacts

The search area is for the most part, subject to massive industrial development and the potential impact on buried archaeological deposits will have been due to these activities. The site of the proposed development will also have been affected by the quarried removal of brickearth for brick making (Fig. 1). It is unlikely that any archaeological deposits will have survived in the upper strata's of the site. The existing impact is considered as **high**.

### 7.2 Proposed Impacts

At the time of preparing this archaeological assessment, the extent of the proposed development was for the regeneration of the football stadium. Extensive above ground impact is to be expected within the development area once construction begins. The piled excavation of footings for concrete stands and the installation of services will be the main cause of below ground impact and is considered to be **medium**.

## 8 MITIGATION

The purpose of this archaeological desk-based assessment was to provide an assessment of the contextual archaeological record, in order to determine the potential survival of archaeological deposits that maybe impacted upon during any proposed construction works.

The assessment has generally shown that the area to be developed is within an area of high archaeological potential because of the extensive Prehistoric deposits. The proposed development site is within a general area of high archaeological potential for Palaeolithic, Mesolithic/Neolithic archaeology.

In particular the geological background and previous archaeological investigations in the area show there is a high potential for important early prehistoric remains. However, on-site geological survey has shown the proposed development area to be mostly made ground.

The recommendations from EPS are for a piled solution with a suspended ground floor construction which will have little impact on buried archaeology. It is important

to remember that English Heritage advice is for preservation in situ if piling has no more than a 2% impact on the archaeological resource.

## **9 OTHER CONSIDERATIONS**

### **9.1 Archive**

Subject to any contractual requirements on confidentiality, two copies of this desk-based assessment will be submitted to Kent County Council (Heritage) within 6 months of completion.

### **9.2 Reliability/limitations of sources**

The sources that were used in this assessment were, in general, of high quality. The majority of the information provided herewith has been gained from either published texts or archaeological 'grey' literature held at Kent County Council, and therefore considered as being reliable.

### **9.3 Copyright**

Swale & Thames Survey Company (SWAT Archaeology) and the author shall retain full copyright on the commissioned report under the Copyright, Designs and Patents Act 1988. All rights are reserved, excepting that it hereby provides exclusive licence to Faithorn Farrell Timms LLP (and representatives) for the use of this document in all matters directly relating to the project.

## **10 ACKNOWLEDGEMENTS**

The author would like to thank Faithorn Farrell Timms LLP for commissioning this report.

Paul Wilkinson PhD., MifA., FRSA.

16<sup>th</sup> October 2014

Revised 21/05/2015 and updated 27/07/2015

## **11 REFERENCES & BIBLIOGRAPHY**

Batchelor C R Quaternary Scientific (QUEST) Report on the Geoarchaeological Borehole Investigations at the StoneBridge Stadium Stonebridge Road, Northfleet, Kent. May 2015

IFA (revised 2011) STANDARD AND GUIDANCE for historic environment desk-based assessment.

National Planning Policy Statement 2010: Planning for the Historic Environment. TSO (The Stationery Office)

National Planning Policy Framework March 2012.

Phase I and II Ground Investigation Report: PHB Stadium EPS October 2014

KCC HER Data 2014

## Plates



Plate 1. Google Earth dated 1940



Plate 2. Google Earth dated 1960





Plate 3. Google Earth dated 1999



Plate 4. Google Earth dated 2014



Plate 5. The south-west stand looking north-west



Plate 6. The south stand looking south





Plate 7. The south stand looking east



Plate 8. The pitch looking west



Plate 9. Inside the south-west stand showing details of roof



Plate 10. Looking along the south stand



Plate 11. Looking south to the south stand





Plate 12. Outside of the grounds looking north-east



Plate 13. Outside of the grounds looking west

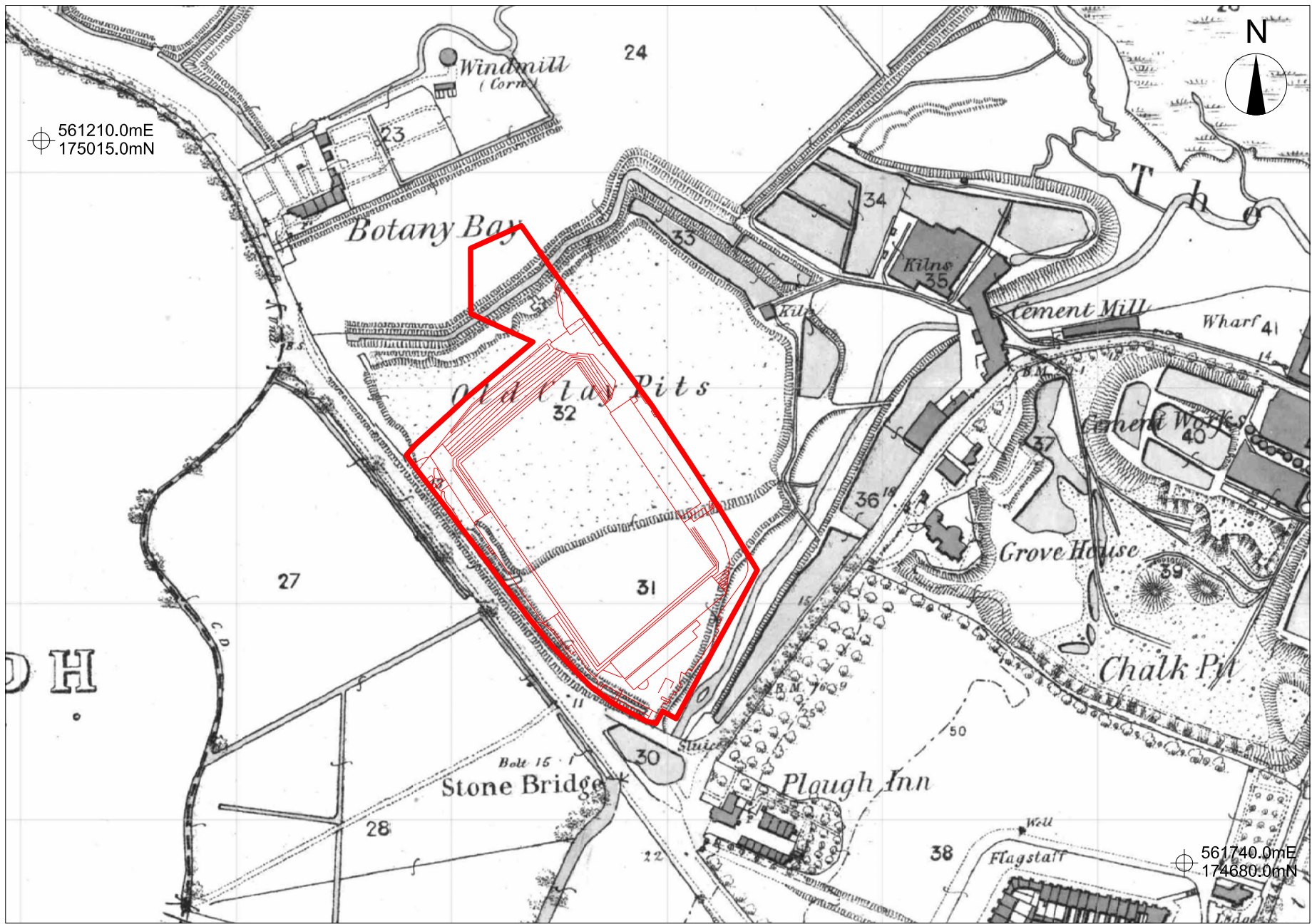


Figure 1: Location of site (Historic mapping: 1865)

0m 1:2500@A4 200m



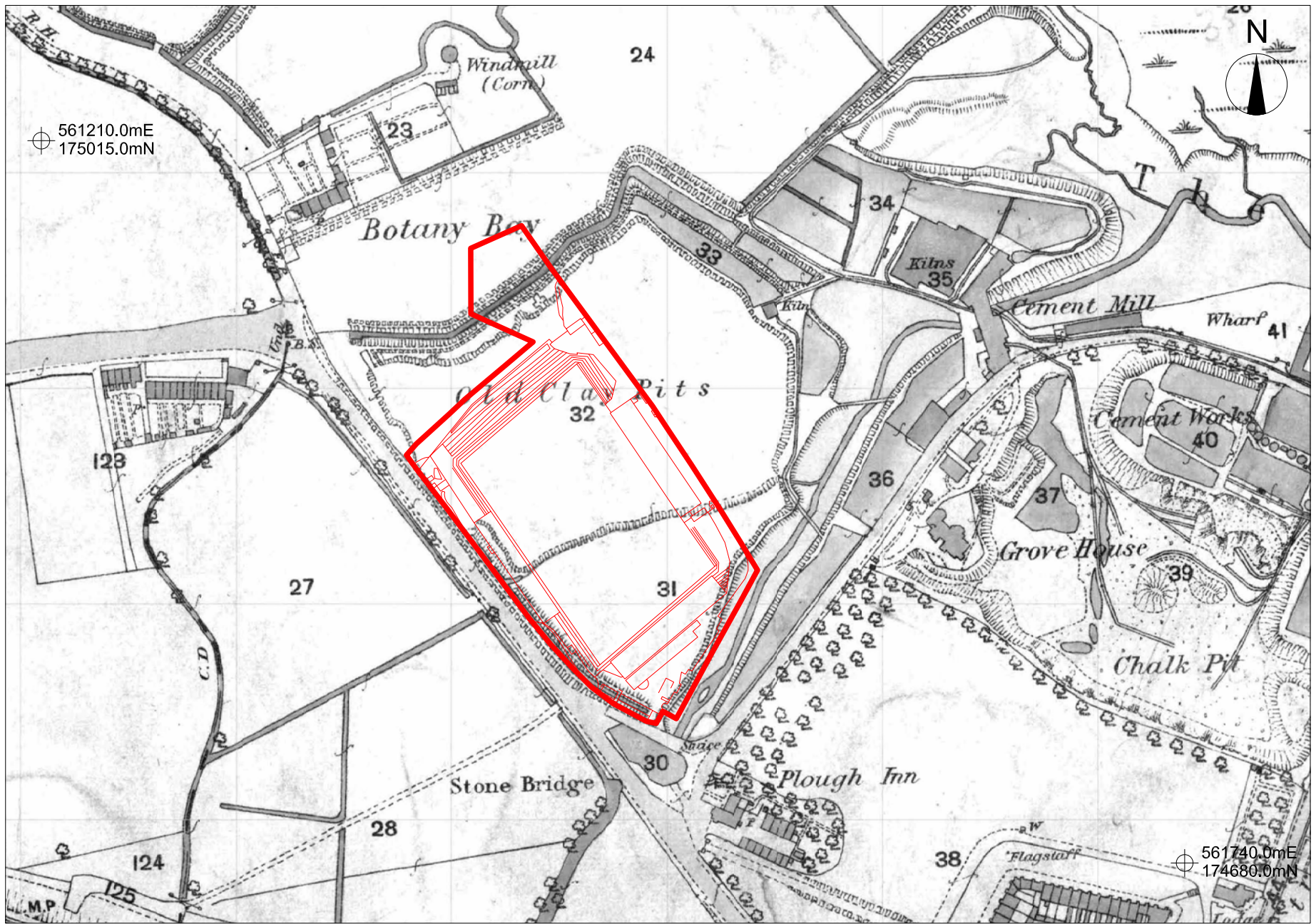


Figure 2: Location of site (Historic mapping: 1872)





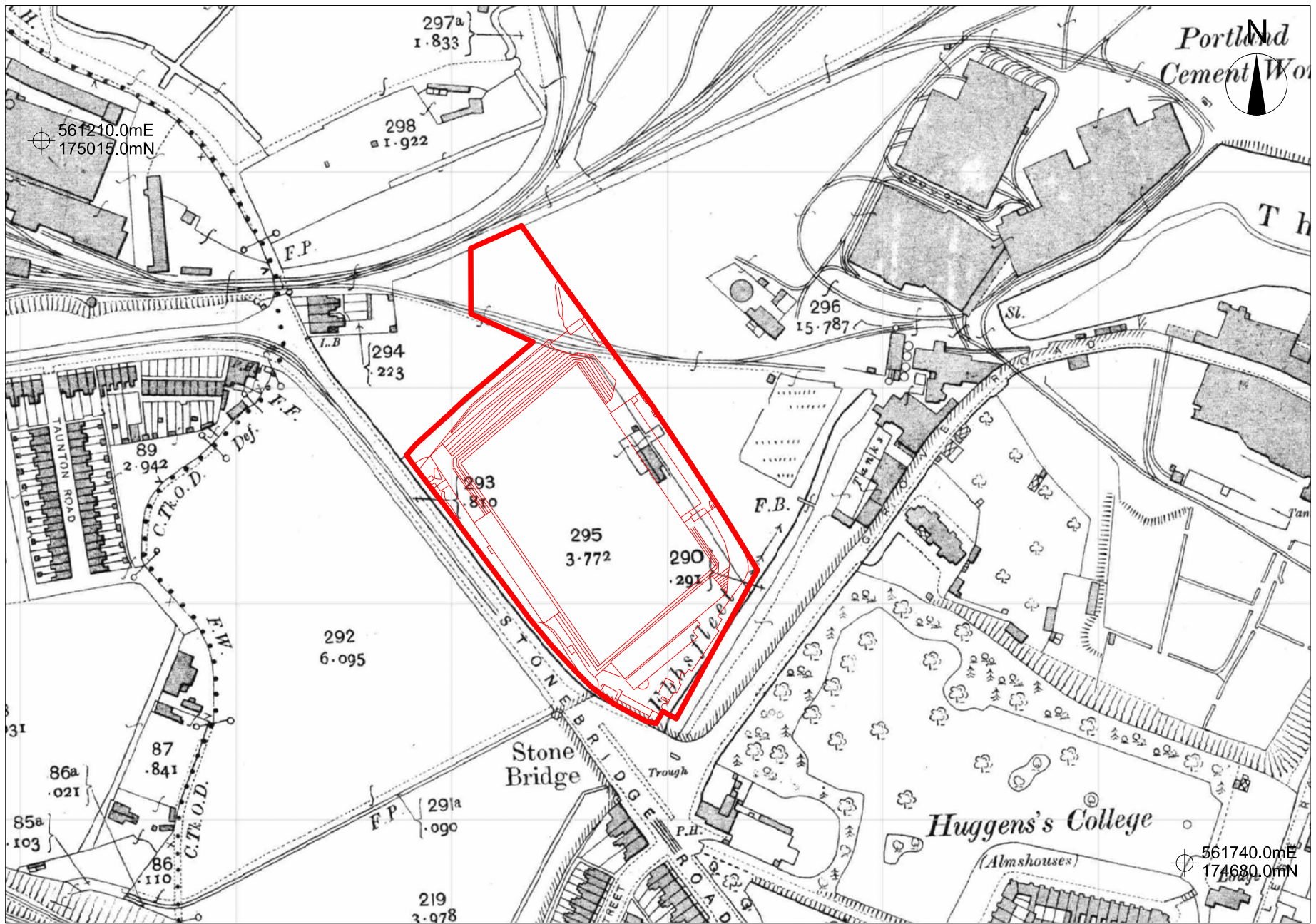


Figure 4: Location of site (Historic mapping: 1907-09)

0m 1:2500@A4 200m



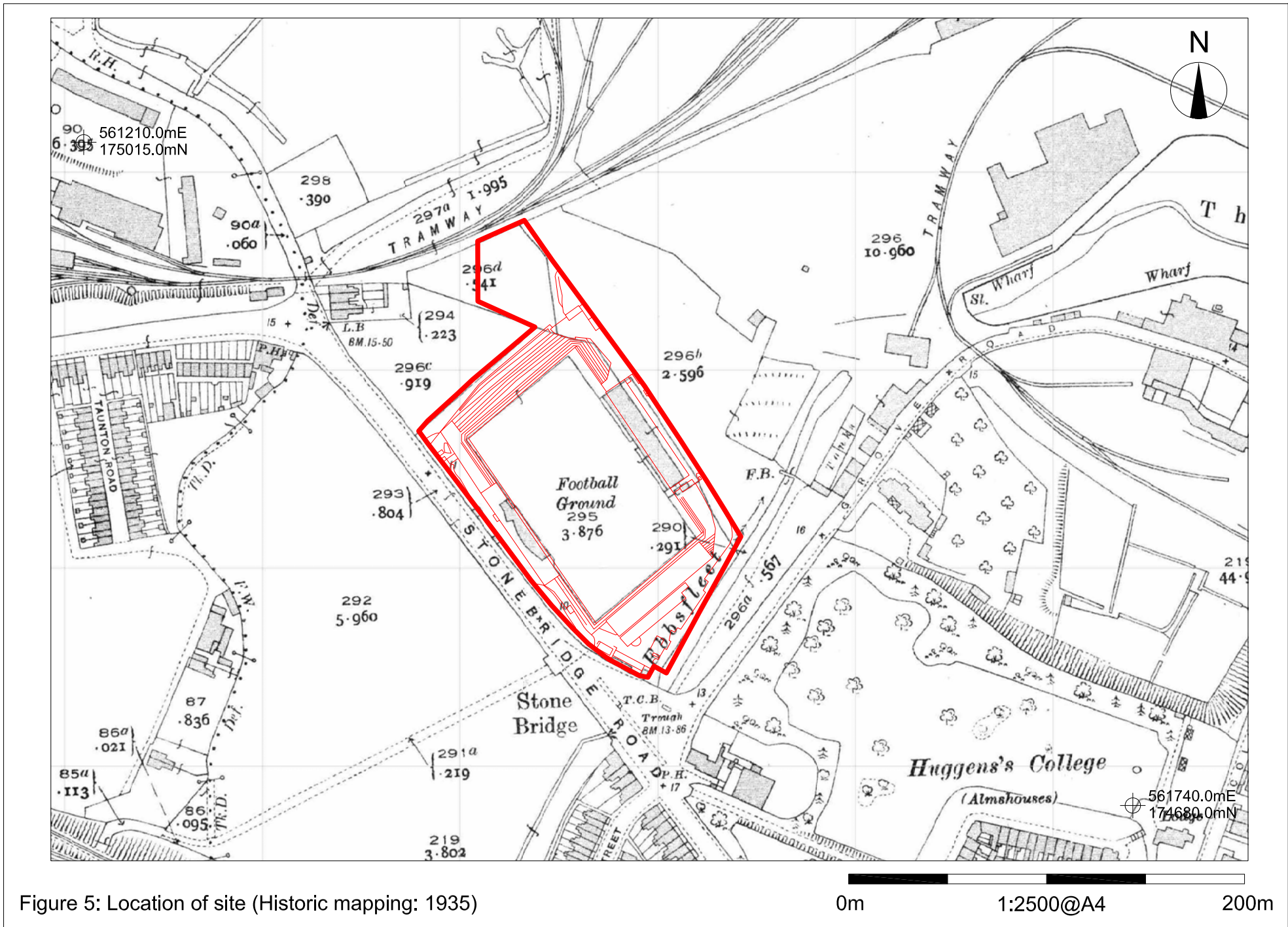


Figure 5: Location of site (Historic mapping: 1935)

0m 1:2500@A4 200m

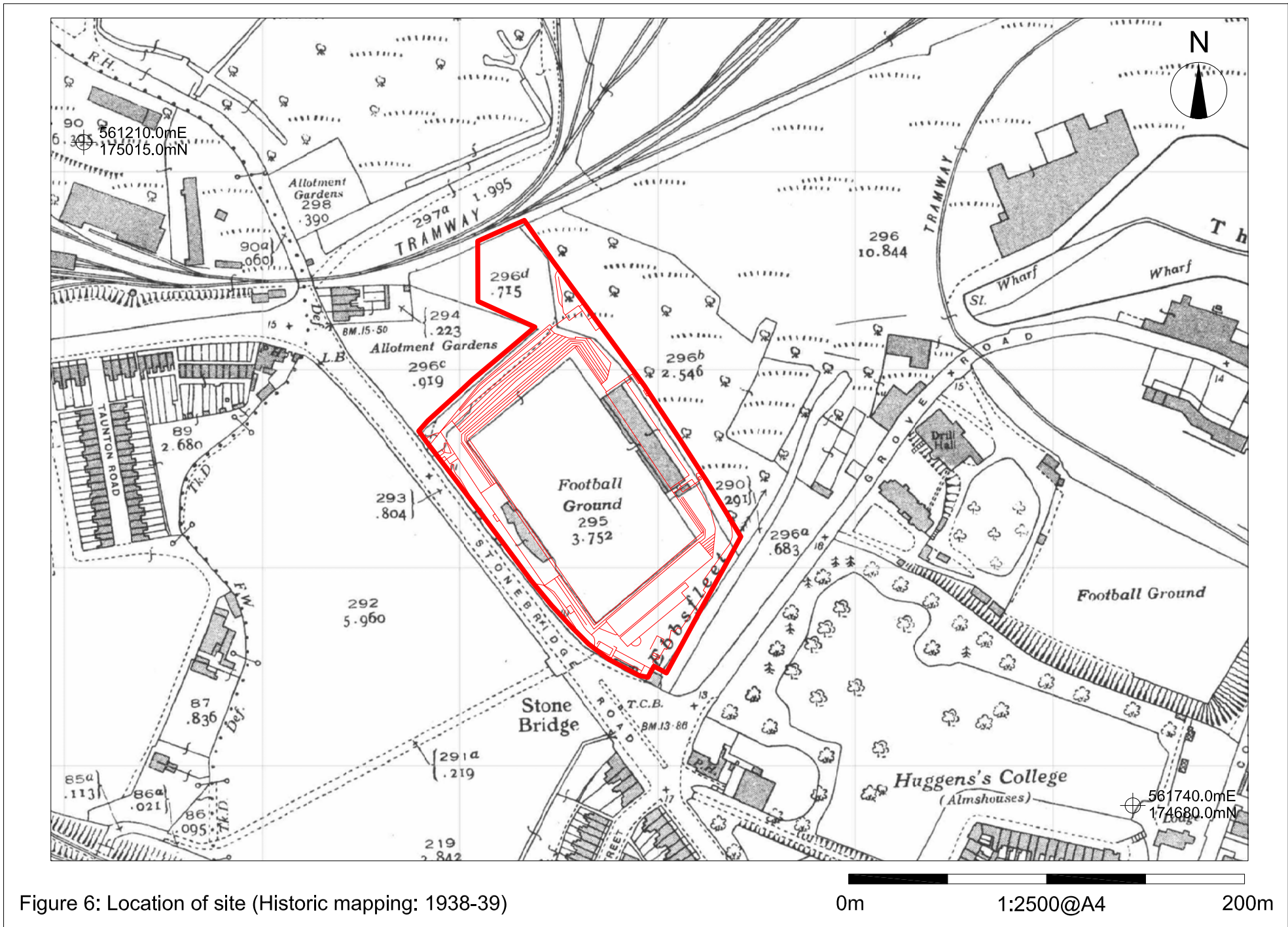
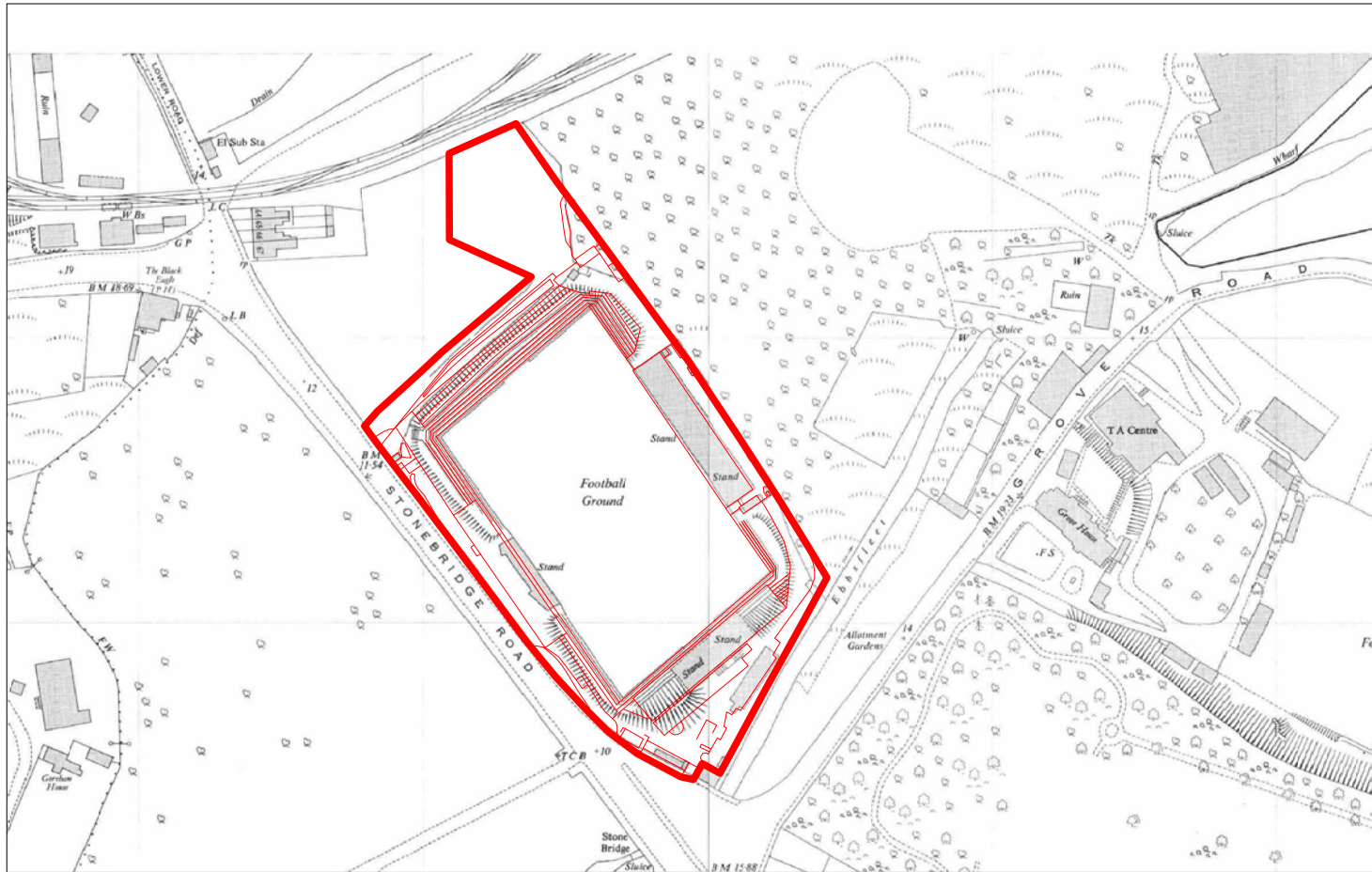
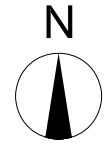


Figure 6: Location of site (Historic mapping: 1938-39)

0m 1:2500@A4 200m



561210.0mE  
175015.0mN



561740.0mE  
174680.0mN

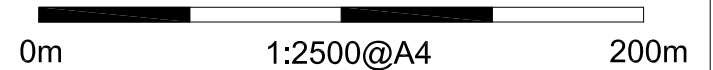
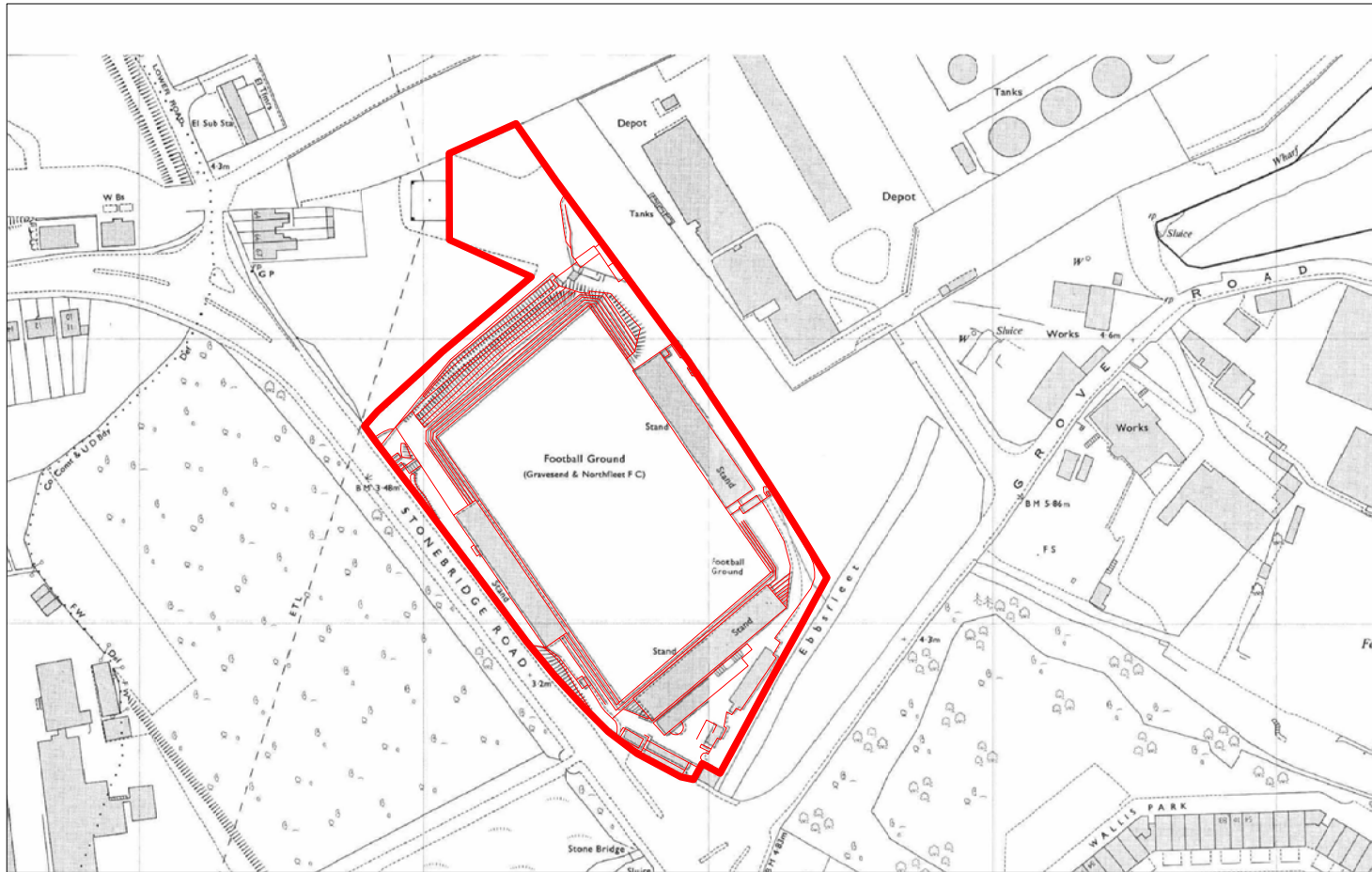
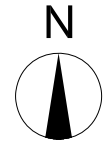


Figure 7: Location of site (Historic mapping: 1952)

561210.0mE  
175015.0mN



561740.0mE  
174680.0mN

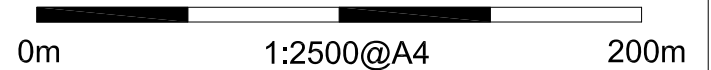
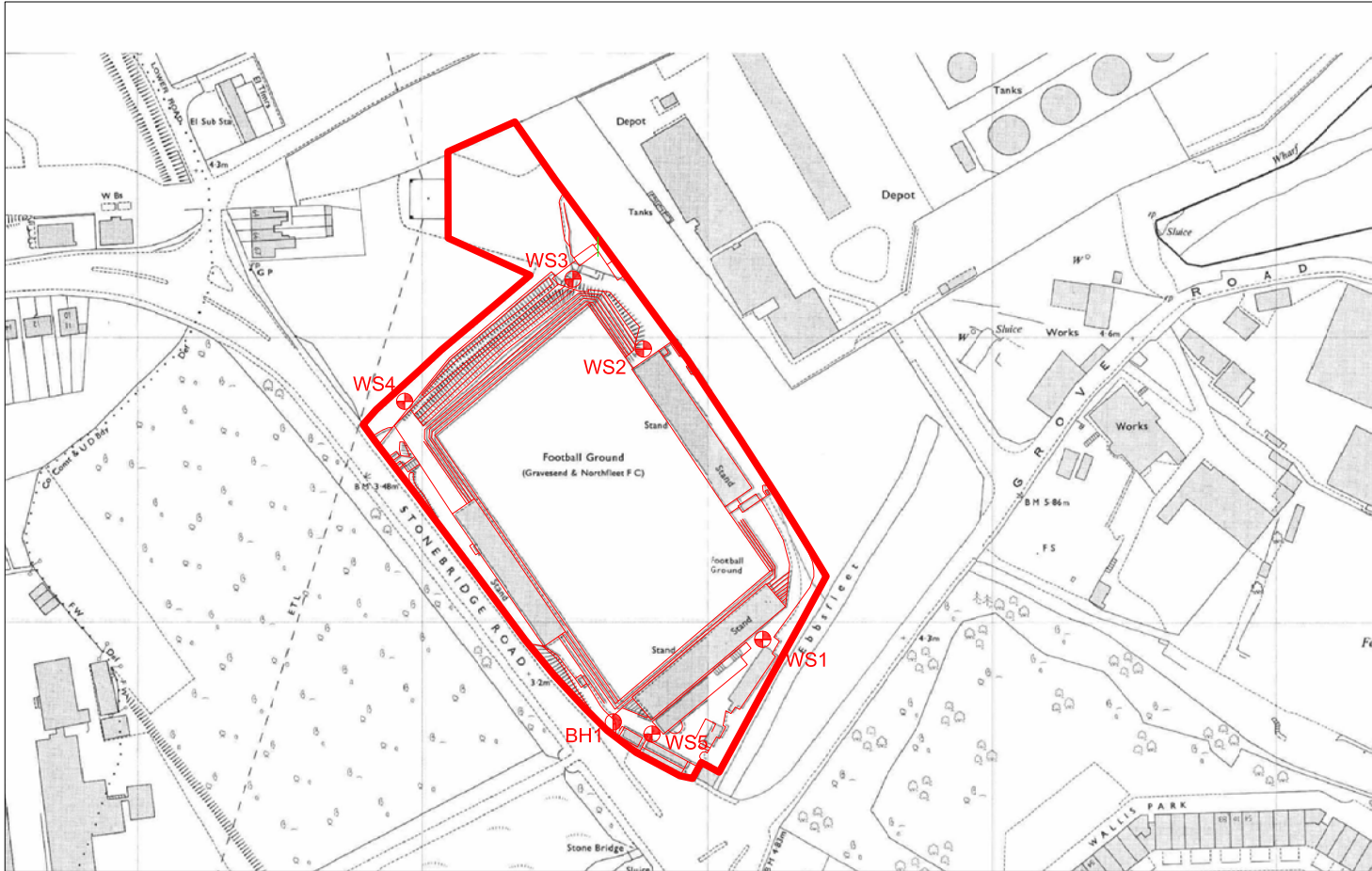
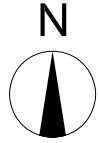


Figure 8: Location of site (Historic mapping: 1970-73)

561210.0mE  
175015.0mN



561740.0mE  
174680.0mN



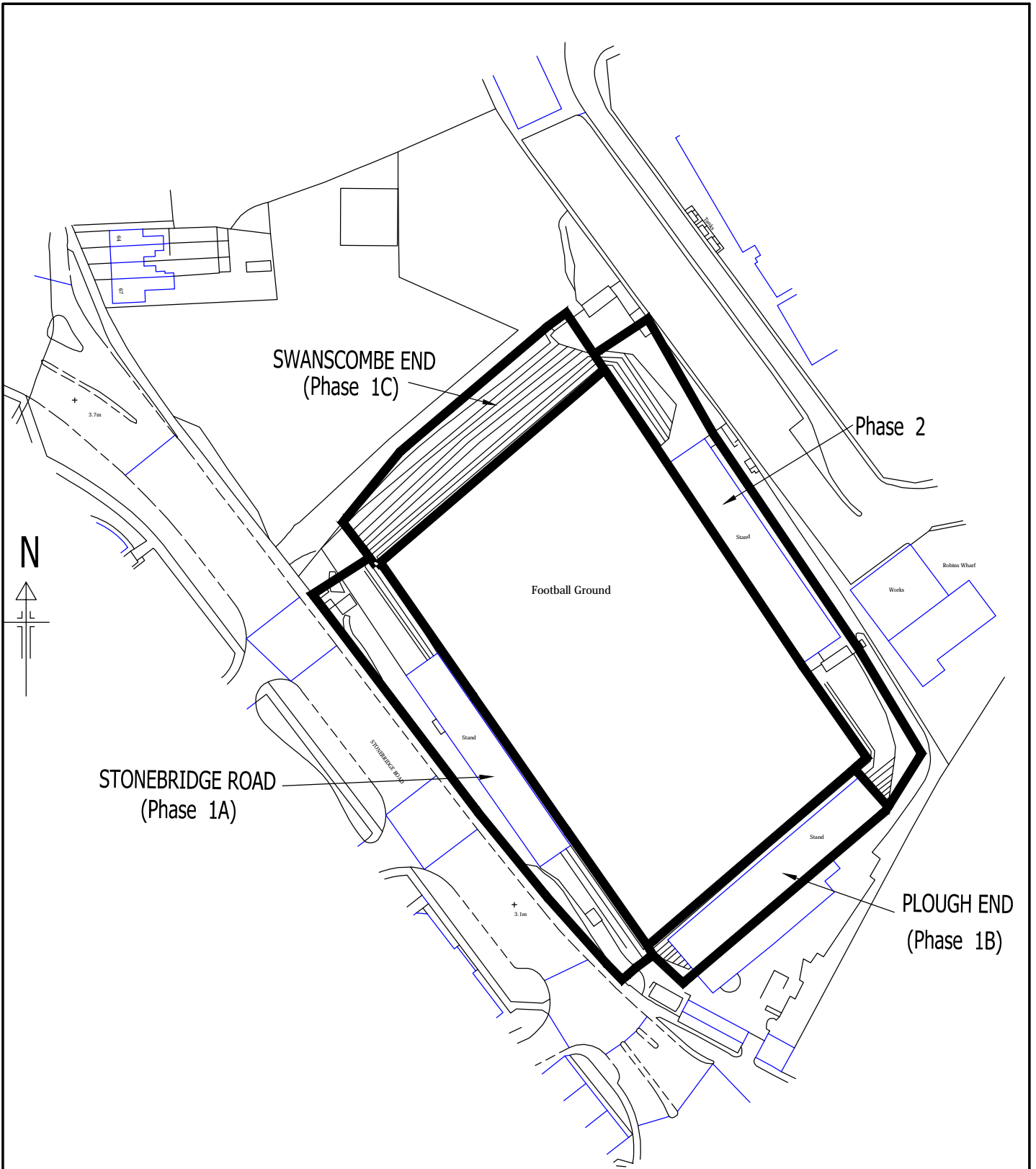
0m 1:2500@A4 200m

Figure 9: Location of site showing borehole positions









rdnance Survey (c) Crown Copyright 2014. All rights reserved. Licence number 100022432

Rev.	Date
A	22-08-14
Boundary Altered	

Scale 1:1250

**Faithorn Farrell Timms**  
 Berwick House  
 8-10 Knoll Rise  
 Orpington  
 Kent BR6 0EL  
 T 01689 885080  
 F 01689 885081

**Client**  
 EBBSFLEET UNITED FOOTBALL CLUB

Do not scale from this drawing. Dimensions to be verified on site by contractor prior to commencement of work.  
 This drawing is the copyright of the practice and may not be reproduced in part or in whole without the prior written consent of the practice.  
 © 2014 Faithorn Farrell Timms LLP

**Project**  
 PHB STADIUM STONEBRIDGE

**Drawing Title**  
 GROUNG REDEVELOPMENT

**Date**  
 22-08-2014

**Drawn By**  
 KR D

**Project No.**  
 T1-2760

**Scale**  
 1:1250 @ A4

**Checked By**  
 RF

**Drawing No.**  
 T1-2760-3

**Rev.**  
 A