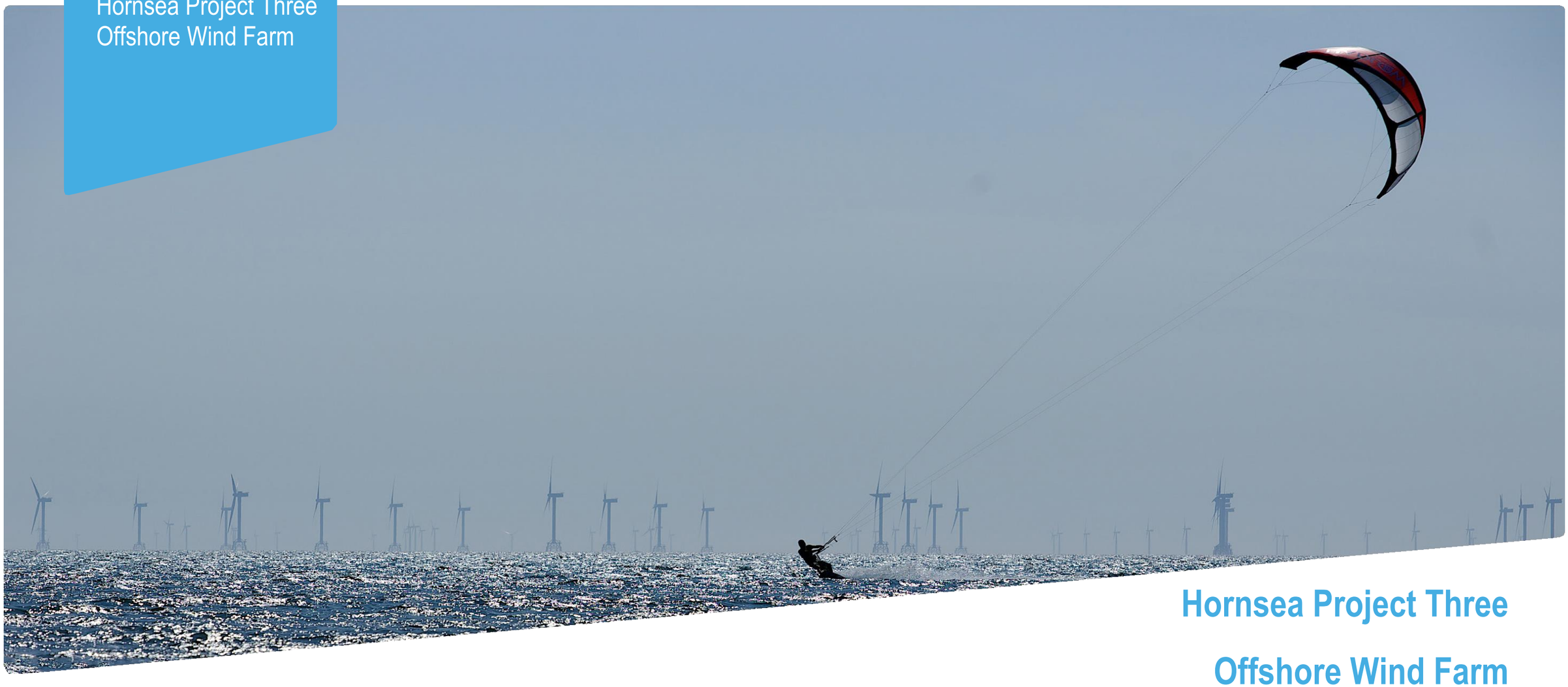
Hornsea Project Three
Offshore Wind Farm



# Hornsea Project Three

# Offshore Wind Farm

## Environmental Statement:
## Volume 6, Annex 5.1 – Desk Based Assessment

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APFP Regulation 5(2)(a)

**Date:** May 2018

Hornsea 3
Offshore Wind Farm

Ørsted

**Environmental Impact Assessment**

**Environmental Statement**

**Volume 6**

**Annex 5.1 – Desk Based Assessment**

**Liability**

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Front cover picture: Kite surfer near a UK offshore wind farm © Orsted Hornsea Project Three (UK) Ltd., 2018.

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## Glossary

| Term | Definition |
|---|---|
| Bronze Age | The time period 2,000 – 700 BC. |
| Iron Age | The time period 700 BC - AD 43. |
| List Entry Number | Reference number for entry in National Heritage List. |
| Lower Palaeolithic | The time period pre 30,000 BC. |
| Medieval | The time period AD 450 – AD 1540. |
| Mesolithic | The time period 10,000 - 3,500 BC. |
| Modern | The time period 1901 onwards. |
| Neolithic | The time period 3,500 - 2,000 BC. |
| Onshore elements of Hornsea Three | Hornsea Three landfall, onshore cable corridor, the onshore HVAC booster station, the onshore HVDC converter/HVAC substation and the interconnection with the Norwich Main National Grid substation |
| Outline Written Scheme of Investigation | A plan detailing the protocol for any archaeological investigation to be carried out prior to the construction of Hornsea Project Three offshore wind farm, including procedures for field survey and watching briefs, as may be required. |
| Post Medieval | The time period AD 1540 to 1901. |
| Roman | The time period AD 43 – AD 410. |
| Upper Palaeolithic | The time period 30,000 - 10,000 BC. |

## Acronyms

| Acronyms | Description |
|---|---|
| DBA | Desk Based Assessment |
| HER | Historic Environment Record |
| HVAC | High Voltage Alternating Current |
| HVDC | High Voltage Direct Current |
| MHWS | Mean High Water Springs |
| OS | Ordinance Survey |
| ZTV | Zone of Theoretical Visibility |

## Units

| Unit | Description |
|---|---|
| ha | Hectare (area) |
| km | Kilometre (distance) |
| m | Metre (distance) |

# 1. Desk Based Assessment

## 1.1 Introduction

1.1.1.1 This annex of the Environmental Statement presents the results of the onshore baseline environment desk-based assessment for the Hornsea Project Three offshore wind farm (hereafter referred to as 'Hornsea Three') on the historic environment. Specifically, this document considers the baseline of Hornsea Three landward of Mean High Water Springs (MHWS).

1.1.1.2 This desk-based assessment (DBA) identifies the heritage assets within 1 km of the onshore elements of Hornsea Three (namely the Hornsea Three landfall, the onshore cable corridor, the onshore HVAC booster station, the onshore HVDC converter/HVAC substation and the interconnection with the Norwich Main National Grid substation) as well as temporary storage areas and compounds. A wider buffer has been applied around the onshore HVAC booster station and HVDC converter/HVAC substation to identify potential impacts on the setting of the designated assets. These buffers comprise:

- 5 km around the onshore HVAC booster station and HVDC converter/HVAC substation for designated assets such as Grade II listed buildings, Conservation Areas, etc.; and
- 10 km around the onshore HVAC booster station and HVDC converter/HVAC substation for designated assets of higher significance (i.e. Grade I and II* listed buildings, registered battlefields, Grade 1 and II* registered parks and gardens, scheduled monuments or World Heritage Sites)

1.1.1.3 These areas collectively comprise the Hornsea Three historic environment study area. Assets within the historic environment study area are summarised in section 1.6.1, set out in annex 5.3: Site Gazetteer and shown their location is shown on Figure 1.1. Designated assets within the 5 km and 10 km buffers around the onshore HVAC booster station and HVDC converter/HVAC substation are summarised in Table 1.1 and Table 1.2, and set out in annex 5.4: Screening Assessment – Onshore HVDC Converter/HVAC Substation and annex 5.5: Screening Assessment – Onshore HVAC Booster Station. These wider buffers of the Hornsea Three historic environment study area and the designated assets are also identified in annex 5.4: Screening Assessment – Onshore HVDC Converter/HVAC Substation and annex 5.5: Screening Assessment – Onshore HVAC Booster Station.

1.1.1.4 The DBA also identifies heritage assets within 250 m from the onshore elements of Hornsea Three and is referred to as the Hornsea Three core historic environment study area. This study area captures information from the Norfolk Historic Environment Record and primarily relates to undesignated heritage assets (it may also capture designated assets within 250 m however these will be reported within the historic environment study area). Where appropriate, the description of the undesignated assets may extend beyond 250 m to provide the context of key features and this is based on professional judgement.

1.1.1.5 The Hornsea Three core historic environment study area and the undesignated assets are shown on Figure 1.1 and described in 1.6.2.

## 1.2 Site description

1.2.1.1 The Hornsea Three onshore cable corridor will run from a landfall at Weybourne on the north Norfolk Coast to a HVDC converter/HVAC substation to the south of Norwich, before making grid connection at Norwich Main National Grid substation. The Hornsea Three onshore cable corridor runs over the Cromer Ridge then through the thick loamy soils of north east Norfolk, across the Wensum Sands of Low Norfolk and then onto the boulder clay plateau. All onshore cables will be buried underground.

1.2.1.2 The Hornsea Three onshore cable corridor passes through the districts of North Norfolk, then through Broadland District and finally terminates in South Norfolk District.

1.2.1.3 The geology of much of the northern part of the Hornsea Three onshore cable corridor comprises Neogene and Quaternary Rocks, which are undifferentiated, overlain by glacial till. The Hornsea Three onshore cable corridor crosses a band of White Chalk overlain by glacial sands and gravels to the east of Holt and then further south to Saxthorpe and Reepham, over chalk of the Lewes Chalk Formation, the Seaford Chalk Formation and the Newhaven Chalk Formation, overlain by clay, silt sand and gravel of the Sheringham Cliffs Formation. At Saxthorpe the Hornsea Three onshore cable corridor crosses alluvial deposits associated with the River Bure.

1.2.1.4 Between Reepham and Attlebridge, the Hornsea Three onshore cable corridor passes over higher ground through Great and Little Witchingham and over sands and gravels of the Wroxham Crag Formation. The Hornsea Three onshore cable corridor then crosses alluvial deposits of the River Wensum. The Hornsea Three onshore cable corridor then passes over further Lewes Nodular Chalk Formation deposits, overlain by the Sheringham Cliffs Formation to Easton and Bawburgh, where it crosses alluvial deposits of the River Yare. The Hornsea Three onshore cable corridor then mostly passes over further Lewes Nodular Chalk Formation deposits to its southern end south of Norwich (http://mapapps.bgs.ac.uk/geologyofbritain/home.html).

## 1.3 Aims and objectives

1.3.1.1 The aims of the study are:

- To assess the likelihood of archaeological remains to be present within the historic environment study area and to provide an indication of what, if any, further work may be required with regard to archaeology; and
- To assess the significance of designated heritage assets within the historic environment study area.

## 1.4 Project archive

1.4.1.1 The project archive, comprising maps, photographs, notes and other relevant material is held by RPS at the time of writing.

## 1.5 Methodology

1.5.1.1 Hornsea Three has consulted with Norfolk County Council and Historic England in the development of the historic environment baseline, and the methodology adopted. Details of that consultation are summarised in Table 5.3 of volume 3, chapter 5: Historic Environment.

1.5.1.2 The desk assessment comprised consultation with the Norfolk Archaeology Advisory Service and their Historic Environment Record (HER) and Historic England. Data on scheduled monuments, registered parks and gardens and registered battlefields was obtained from Historic England. A variety of online resources including Google Earth, MAGIC (Department for Environment, Food and Rural Affairs website) and ArchSearch (data held by the Archaeology Data Service) were examined. A review of relevant documentary and archival material held in libraries and archives was undertaken. An iterative approach was adopted during this process to determine the scope of the above consultations/searches.

1.5.1.3 Heritage asset data for the historic environment study area around the onshore HVAC booster station and HVDC converter station was screened using a Zone of Theoretical Visibility (ZTV). The ZTV was used to identify locations from where the onshore HVAC booster station and HVDC converter/HVAC substation are likely to be visible. The methodology for the development of the ZTVs is presented in appendix B: Zone of Theoretical Visibility Methodology of volume 6, annex 4.1: Landscape and Visual Impact Assessment Methodology. The results of the screening of heritage assets within the Hornsea Three historic environment study area are presented in Table 1.1 and Table 1.2.

1.5.1.4 The desk assessment has conformed to the relevant legislation and guidance, including:

- National Planning Policy Framework (Department of Communities and Local Government, 2012);
- National Policy Statement for Energy EN-1 (Department of Energy and Climate Change, 2011a);
- National Policy Statement for Renewable Energy EN-3 (Department of Energy and Climate Change, 2011b);
- Code of Conduct for Archaeologists (Chartered Institute for Archaeologists, 2014a);
- Standard and Guidance for Historic Environment Desk Based Assessment (Chartered Institute for Archaeologists, 2014b);
- Conservation Principles published by English Heritage (Drury and McPherson, 2008); and
- Historic Environment Good Practice Advice in Planning Note 3 The Setting of Heritage Assets (Historic England, 2015).

1.5.1.5 Within this annex, archaeological periods are defined as follows:

- Prehistoric, comprising of:
  - Lower Palaeolithic (pre 30,000 BC);
  - Upper Palaeolithic (30,000 - 10,000 BC);
  - Mesolithic (10,000 – 3,500 BC);
  - Neolithic (3,500 - 2,000 BC);
  - Bronze Age (2,000 – 700 BC); and
  - Iron Age (700 BC – AD 43).
- Roman (AD 43 – AD 410);
- Medieval (AD 450 – AD 1540);
- Post Medieval (AD 1540 to 1901); and
- Modern (1901 onwards).

1.5.1.6 A site visit and walkover survey of areas that would be occupied by the Hornsea Three elements with the most significant archaeological potential was undertaken. The results of the walkover survey are presented at annex 5.2: Fieldwalking Report.

1.5.1.7 Following consultation with the County Archaeologist, a brief, and subsequently an outline written scheme of investigation for geophysical surveys of a number of areas within the historic environment study area, were produced. Geophysical surveys were undertaken between February and October 2017 and are reported in both this document and in volume 6, annex 5.6: Onshore Geophysical Survey Report.

## 1.6 Baseline environment

### 1.6.1 Designated assets

1.6.1.1 There are a number of designated heritage assets within the historic environment study area. These are summarised in the paragraphs below and shown on Figure 1.1. Further information on the assets is also provided in annex 5.3: Site Gazetteer. Designated assets within the 5 km and 10 km buffers around the onshore HVAC booster station and HVDC converter/HVAC substation are summarised in Table 1.1 and Table 1.2, and set out in annex 5.4: Screening Assessment – Onshore HVDC Converter/HVAC Substation and annex 5.5: Screening Assessment – Onshore HVAC Booster Station.

***World Heritage Sites***

1.6.1.2 There are no World Heritage Sites within the historic environment study area or within the county of Norfolk.

***Scheduled Monuments***

1.6.1.3 There are nine scheduled monuments within the historic environment study area. These are described in the following paragraphs.

1.6.1.4 Six assets representing prehistoric activity, probably the remains of funery rituals of the Bronze Age, are located within the historic environment study area:

- Two round barrows near Norwich Lodge, Ketteringham Hall (list entry number 1002888);
- Round barrow south east of the Lodges (list entry number 1003623);
- Two tumuli in Big Wood (list entry number 1003977);

- Oval barrow in Bodham Wood, 600 m east-south-east of Warren Farm (list entry number 1013567);
- Bowl barrow on the north side of Muckleburgh Hill (list entry number 1013584); and
- Bowl barrow on Kelling Heath, south of Holgate Hill (list entry number 1013585).

1.6.1.5 In addition, the Roman town of Venta Icenorum and associated prehistoric and medieval remains (list entry number 1013873 and 1021463) is located within the historic environment study area.

1.6.1.6 Two assets representing medieval settlement and/or religious activity are also located within the historic environment study area, these comprise:

- Baconsthorpe Castle moated site with fortified house, gatehouse, courtyards and formal gardens (list entry number 1013093). There are further medieval remains in the vicinity. Fieldwalking and survey have found evidence for a medieval building in the field to its west, outside the scheduled area and approximately 65 m east of the Hornsea Three onshore cable corridor at its nearest point. Complete medieval bricks have been recovered from the fields during fieldwalking within the core historic environment study area (HER number 32947). To the west of Hempstead Wood, some 200 m west of the Hornsea Three onshore cable corridor within the core historic environment study area, cropmarks perhaps representing a medieval park associated with the castle have been identified (HER number 36425); and
- Weybourne Priory (list entry number 1013096), located in the centre of Weybourne village, on the west side of Spring Beck in a small valley which opens on to the coast c.625 m to the north. The scheduled monument is located at the north of the Hornsea Three onshore cable corridor and some 110 m to its south. In addition, the standing remains of the priory are listed at Grade I.

***Listed Buildings***

1.6.1.7 There are a total of 159 listed buildings within the historic environment study area. Of these, five are listed at Grade I, 25 at Grade II* and 129 at Grade II.

1.6.1.8 Of the above Grade I listed buildings, the Church of St Peter and Paul at Salle (list entry number 1306145) and the Church of St Peter at Easton (list entry number 1305921) are located approximately 400 m and 140 m to the east of the Hornsea Three onshore cable corridor respectively. In addition, the Church of St Peter and Paul at Heydon (list entry number 1309337) is located immediately on the western edge of and adjacent to the registered park and garden at Heydon Hall, itself located some 600 m east of the Hornsea Three onshore cable corridor.

1.6.1.9 A Grade II* listed building is also contained within the registered park and garden at Salle Park (see paragraph 1.6.1.15) below.

1.6.1.10 In addition, there are a number of further buildings also listed at Grade II*. These include:

- Church of St Michael and All Angels at Booton (list entry number 1342776), located some 35 m west of the Hornsea Three onshore cable corridor. The graveyard is shown on the first edition Ordnance Survey (OS) six inch to the mile map of 1885 as being similar to its current extent;
- Church of St Mary and All Saints at Little Melton (list entry number 1050541), located some 300 m north of the Hornsea Three onshore cable corridor;
- Gowthorpe Manor House (list entry number 1050515), and the Barn approximately 40 m west of Gowthorpe Manor House (list entry number 1366141) at Swardeston, each located within 600 m of the Hornsea Three onshore cable corridor;
- Church of St John the Baptist at Alderford (list entry number 1076888), located some 130 m east of the Hornsea Three onshore cable corridor; and
- Church of St Andrew at Attlebridge (list entry number 1372661), located some 380 m south east of the Hornsea Three onshore cable corridor.

***Registered Parks and Gardens***

1.6.1.11 There are four registered parks and gardens within the historic environment study area. These are Intwood Hall (list entry number 1000320) located immediately north of the onshore cable corridor at its nearest point; Heydon Hall (list entry number 100187) located some 600 m east of the Hornsea Three onshore cable corridor at its nearest point; and Voewood (list entry number 1001428) located some 730 m west of the onshore cable corridor at its nearest point, each registered at Grade II*. Salle Park (list entry number 1001016), located some 110 m east of the onshore cable corridor at its nearest point is registered at Grade II.

1.6.1.12 The registered park and garden at Heydon Hall lies partly within the historic environment study area, with the remainder of the registered park and garden outside. Four lodge buildings, each listed at Grade II, are located within the registered park and garden and lie within the historic environment study area, but outside of the onshore cable corridor.

1.6.1.13 Voewood lies largely within the historic environment study area. The registered park and garden contains seven listed buildings, with the principal building listed at Grade II* and the remainder listed at Grade II.

1.6.1.14 Intwood Hall lies entirely within the historic environment study area and contains three associated listed buildings, each listed at Grade II.

1.6.1.15 Salle Park registered park and garden lies largely within the historic environment study area and its principal building, Salle Park, the only listed building within the registered park and garden, is listed at Grade II *(list entry number 1170353).

***Registered Battlefields***

1.6.1.16 There are no registered battlefields within the historic environment study areas, or within the county of Norfolk.

***Conservation Areas***

1.6.1.17 There are seven conservation areas within the historic environment study area. They are Weybourne, Kelling, Hempstead (with a small part of the Glaven Valley conservation area adjacent)), Baconsthorpe, Blickling, Heydon and Reepham. These conservation areas contain many of the listed buildings described in paragraphs 1.6.1.7 to 1.6.1.10, above.

## 1.6.2 Undesignated assets

1.6.2.1 The early landscape within the core historic environment study area is likely to have been significantly different to the modern version. At the north of the core historic environment study area, there has been significant coastal erosion and it must be assumed that the early coastline was further north. The rivers were likely to have been wider and more navigable. The landscape was gradually modified through human activity, particularly during the medieval and post medieval periods.

1.6.2.2 The following sections discuss the potential for undesignated assets within the core historic environment study area.

***Prehistoric***

Palaeolithic

1.6.2.3 Very few finds of Palaeolithic date have been made within the core historic environment study area. In 1974 a Palaeolithic flint hand axe was recovered during subsoiling in Plumstead parish (HER number 6646). The findspot is immediately adjacent to the Hornsea Three onshore cable corridor.

1.6.2.4 In addition, finds of Palaeolithic material have been made in Keswick and Intwood parish, near the southern end of the Hornsea Three onshore cable corridor (HER numbers 9703 and 23775).

1.6.2.5 It has been recognised that the Pleistocene deposits of the north Norfolk coast have a high potential for archaeological and environmental information (Austin, 1997).

Mesolithic

1.6.2.6 Similarly, there is relatively little evidence of Mesolithic activity in the area. A number of finds of Mesolithic material have been made, mostly at the northern end of the Hornsea Three onshore cable corridor (HER numbers 12070, 6257 and 6259), with further finds further south (HER numbers 34496 and 60553).

Neolithic/Bronze Age

1.6.2.7 Evidence for Neolithic activity in the area is mainly in the form of finds. Comparatively large numbers of finds of Neolithic material have been made along the Hornsea Three onshore cable corridor, with numerous HER records representing finds from this period located within 100 m on each side of the cable corridor.

1.6.2.8 There are a number of records of Bronze Age activity in the area, mostly either representing funery activity or findspots. While there is a general scatter of these sites and finds along the Hornsea Three onshore cable corridor there is something of a concentration at its northern and southern ends.

1.6.2.9 Aerial photographs show the cropmarks of two adjacent ring ditches located north west of Salle Park and immediately adjacent to the proposed Hornsea Three onshore cable corridor. These probably represent the ploughed remains of Bronze Age round barrows (HER number 56166).

1.6.2.10 The cropmarks of a square enclosure containing a double concentric ring ditch have been revealed through aerial photography some 70 m west of the proposed Hornsea Three onshore cable corridor (HER number 31557).

1.6.2.11 A group of five ring ditches visible on aerial photographs to the north east of Morton village in Morton on the Hill parish, may indicate the location of a Bronze Age round barrow cemetery. The cemetery is located immediately south of the River Wensum, on the valley floor and on the edge of the river terrace gravels, where they meet the alluvial soils of the floodplain. The presence of a barrow cemetery in this general area was record during the 1830s and it may be that some components of this group correspond with the earthworks recorded in the 1830s (HER number 50649). There is no sign of these assets on the first edition six inch to the mile OS map of 1883. This site is crossed by the proposed Hornsea Three onshore cable corridor.

1.6.2.12 The onshore geophysical survey undertaken in this area revealed several weak circular and sub-circular anomalies. Two of these correspond with cropmarks of Bronze Age round barrows recorded in the HER, though their responses are very weak. The circular anomaly is not recorded as a cropmark, however it shows a similar response to those of the sub-circular anomalies and has therefore also been interpreted as being of possible archaeological origin.

1.6.2.13 Several positive linear and discrete anomalies have been identified to the north and south of the possible barrows. These are likely to be related to former cut features, such as boundary ditches and pits, and provide evidence of possible settlement activity. Many of the linear anomalies correspond with cropmarks recorded in the HER as HER number 21719.

1.6.2.14 Geophysical survey undertaken on the Hornsea Three onshore cable corridor at Ringland has revealed a positive, sub-circular anomaly at the south-western edge of the survey the area. This is likely to be related to the probable Bronze Age barrow (HER number 7803) recorded on the site. Immediately to the south of the probable barrow, weak, curvilinear anomalies have been detected. The responses are relatively weak, making further interpretation difficult, though their proximity to the probable barrow has led to their categorisation as being of 'possible' archaeological origin.

1.6.2.15 In addition, geophysical survey undertaken on the Hornsea Three onshore cable corridor at Ketteringham has revealed a weak sub-circular anomaly in the centre of the survey area, corresponding with the location of a cropmark of a ring ditch (HER number 18558). The response is possibly related to a former barrow. In addition, two weak, positive linear anomalies are related to former field boundaries.

Iron Age

1.6.2.16 There is little evidence of Iron Age activity except where associated with later, Roman activity. Two finds of Iron Age material have been made along the Hornsea Three onshore cable corridor (HER numbers 6268 and 37080), but no sites seem to have been identified.

***Roman***

1.6.2.17 The wider area was heavily Romanised, probably mostly cleared and farmed. Evidence for Roman roads is recorded along the Hornsea Three onshore cable corridor, with several settlements nearby.

1.6.2.18 A Roman road from Bawborough to Bishop Bridge has been recorded (HER number 5244), as has a stretch of possible Roman road, identified in Keswick and Intwood parish at the southern end of the Hornsea Three onshore cable corridor (HER number 9762). A further Roman road, the Fen Causeway probably starts from the coast near Sea Palling and the Roman town at Brampton, north of Norwich, and runs towards March and Water Newton in Cambridgeshire (HER number M2796). Its alignment crosses the Hornsea Three onshore cable corridor to the south of Reepham.

1.6.2.19 The Roman road from Colchester to Venta Icenorum, modern Caistor St Edmund, located immediately to the north east of the proposal site runs some 600 m to the east of the south-eastern end of the Hornsea Three onshore cable corridor.

1.6.2.20 The Romano-British town of Venta Icenorum, connects with the Roman road. The town was founded in c. 60 AD and occupied throughout the Roman period. Remains are located immediately east of the proposal site and cover a wise area. The site is a scheduled monument (list entry numbers 1013873 and 1021463).

1.6.2.21 The ramparts and ditch of the defended area Romano-British town, located some 700 m north east of the proposal site, survive well for most of the circuit with some standing 3rd century walling also surviving in places.

1.6.2.22 Excavation within the defended, walled area has demonstrated the survival of buildings and features below ground. To the north and south, vestiges of the early gridded street pattern visible as cropmarks have been identified beyond the walled area. Finds of flint artefacts together with early medieval and medieval material from within and near the town demonstrate prehistoric and post-Roman activity on the site. The site is designated through two scheduled monuments (list entry numbers 1013873 and 1021463) (Bowden and White, 2011).

1.6.2.23 The line of a Roman road between Caistor St Edmund and Crownthorpe, the site of a Roman temple, (HER number 8897) has been traced, principally through earthworks, soil marks and cropmarks visible on aerial photographs (HER number 52027). This alignment is crossed by the proposed Hornsea Three onshore cable corridor at its crossing of Main Road, some 100 m south of the A47 road.

1.6.2.24 A possible Roman enclosure and field system located to the east of Weybourne and crossed by the proposed Hornsea Three onshore cable corridor are visible as cropmarks on aerial photographs from 1981 and 1994 (HER number 38342).

1.6.2.25 Cropmarks of a polygonal enclosure located some 750 m north west of the terminus of the Hornsea Three onshore cable corridor may represent a ring ditch or possibly Roman temple (HER number 52181).

1.6.2.26 A further Roman settlement site has been recorded at the Harford Park and Ride site, located on the south side of Norwich at the junction of the A140 Ipswich road and the A47 road, some 500 m east of the Hornsea Three onshore cable corridor (HER number 9753). Here, a large area of Early Roman settlement, enclosures and fields were recorded through excavation. The excavations revealed evidence for enclosures, fields and an aisled building, not visible on aerial photographs.

1.6.2.27 Fieldwalking and metal detecting over the last 45 years to the west of Hethersett, some 1.3 km west of the Hornsea Three onshore cable corridor, has recovered a very large collection of Roman coins, other metalwork and building materials building rubble. Roman brick and tile fragments and a mortared flint wall footing have been observed during the cutting of drainage ditches. The excavation of an area with a large metal-detecting signal also recovered a small Roman lead coffin containing the remains of an infant. Faint cropmarks are visible on aerial photographs, including what appears to be part of an enclosure. The evidence suggests the site of a Roman villa (HER number 9270).

1.6.2.28 There is a general scatter of Roman material along the length of the core historic environment study area with concentrations of material around Weybourne in the north and Caistor St Edmund in the south. Large quantities of Roman metal work have been recorded through metal detecting.

***Medieval***

1.6.2.29 There is considerable evidence for medieval activity in the wider area. Many of the local place-names, including Attlebridge, Baconsthorpe, Cawston, Corpusty, Easton, Hempstead, Little Melton, Marlingford, Mulbarton, Reepham, Saxthorpe, Swainsthorpe, Swardestone, Weston Longville and Weybourne are first recorded in documents in the Domesday Book of 1086 and represent pre-existing occupation (Williams and Martin, 1992).

1.6.2.30 In terms of material evidence, Anglo Saxon cemeteries are recorded around Caistor St Edmund (list entry numbers 1003163 and 1003953). Few recorded stray finds of Early Anglo Saxon date have been made, although evidence for Late Saxon activity has been recorded around Bawburgh and Corpusty.

1.6.2.31 The later medieval landscape would have comprised a series of nucleated villages surrounded by open agricultural fields.

1.6.2.32 Anomalies which may represent the remains of the possible medieval building in the field to the west of Baconsthorpe Castle (List entry Number 1013093), outside the scheduled area and approximately 65 m east of the Hornsea Three onshore cable corridor at its nearest point (HER number 32947) were revealed during the geophysical survey of this area undertaken in connection with Hornsea Three.

1.6.2.33 A positive rectilinear anomaly has been detected in the south of the geophysical survey area. It is possible that the response is associated with the medieval building. The surveyors noted, however, that the anomaly may be related to a small enclosure, though the size of the anomaly (approximately 9 x 23m) is more consistent with it being the remains of a building.

1.6.2.34 Several further discrete positive anomalies and an area of increased response have been detected immediately adjacent to the small rectilinear feature. Due to their proximity to the possible former building, a 'possible' archaeological origin has been determined. The responses may be a result of building debris, or an area of small-scale industrial activity.

1.6.2.35 At Little Melton the remains of two medieval moats and a connecting ditch located on the north side of Great Melton Road survive as earthworks and appear on 19th and 20th century maps. Three sides of the western moat remain and are water filled. An L-shaped pond is all that survives of the eastern moat (HER number 9411).

1.6.2.36 In addition, metal-detecting and fieldwalking undertaken in the area to the south west of All Saints Church, itself located some 160 m to the north of the moated sites, between 1980 and 2015 recovered possible Palaeolithic flints, as well as those of Neolithic, Neolithic/ Bronze Age and undatable prehistoric dates. In addition, Iron Age, Roman, Middle Saxon, Late Saxon and medieval pottery sherds; Iron Age, Roman, medieval and post-medieval coins and Roman to post-medieval metal objects were found. The metal finds include Roman metalworking debris, a brooch, bell and hair pin; an Early Saxon brooch; an Early/Middle Saxon Coptic bowl foot ring; a Middle/Late Saxon pin; a particularly fine Late Saxon stirrup; a Late Saxon to post-medieval spindle whorl; medieval buckles, harness fittings, a mount and harness pendant; a medieval/post-medieval lead weight and a post-medieval shoe buckle and clapper bell (HER number 19771).

1.6.2.37 Excavation work in connection with a pipeline was undertaken through the site of these finds and to its south, east of the moated sites. This revealed no prehistoric features. Three postholes were considered Roman in date, while a number of features dated from the Saxon and later medieval periods (Haskins 2016). The onshore geophysical survey examined the area on both sides of Great Melton Road in this location and found a number of anomalies which may be related to medieval activity to the north of Great Melton Road, with few remains to its south, where the proposed Hornsea Three onshore cable corridor would run.

1.6.2.38 There is some considerable evidence for desertion and shrinkage of medieval villages. At Stinton in Salle parish there seems to be little above ground evidence of a medieval settlement around the moated site (HER number 7327). There is further evidence of medieval settlement desertion in Salle Park (HER number 7366) and at Cantley, mentioned in the Domesday Book, in Ketteringham parish (HER number 9469).

1.6.2.39 In addition, a deserted medieval village is recorded at Kenningham (HER number 10106). Here the parish was united with Mulbarton in 1452, presumably indicating that the population had fallen by then. A further deserted medieval village and church are recorded at Caistor St Edmund (HER number 9795).

1.6.2.40 Onshore geophysical survey undertaken in connection with Hornsea Three has found few remains near medieval churches along the Hornsea Three onshore cable corridor. No remains were found near Booton Church.

1.6.2.41 There is a background scatter of medieval finds over much of the core historic environment study area and very large numbers of medial finds have been recovered through metal detecting.

***Post Medieval and Modern***

1.6.2.42 There are large numbers of post medieval buildings which survive within the core historic environment study area. The evidence indicates that farms began to be constructed within fields and adjacent to roads, away from villages.

1.6.2.43 Few pre-enclosure maps cover the Hornsea Three core historic environment study area. The enclosure of previously open fields occurred relatively late within the core historic environment study area and so detailed mapping of Hornsea Three begins during the 19th century.

1.6.2.44 Much of the land was tithe-able during the second quarter of the 19th century and later. Near the landfall, the settlement at Weybourne is shown on the tithe map of 1839 as lying within its modern extents. The mid-19th century Weybourne Mill (listed at Grade II, list entry number 1304780) is not shown, although an earlier windmill, marked on the first edition OS six inch to the mile map and now removed is shown to the north of the settlement. Cartographic evidence indicates coastal erosion since the mid-19th century and the Coastguard Station shown on the tithe and first edition OS maps and formerly at Weybourne Gap has been lost to the sea. No structures are shown within the core historic environment study area. The Weybourne tithe is similar in its disposition to that of the earlier 1704 map of Weybourne, which was copied during the 19th century (NRO MC 2443/2).

1.6.2.45 A similar position applies with respect to the other settlements within the Hornsea Three onshore cable corridor.

1.6.2.46 The arrival of the railway during the mid-19th century represents a major landscape change. The East Norfolk Railway, Aylsham Branch, including the Bure Valley Railway opened during the late 1870s (HER number 13587) and crosses the Hornsea Three onshore cable corridor immediately south of the A47 road.

1.6.2.47 The Midland and Great North Railway branch from Norwich to Cromer via Holt and Sheringham (HER number opened in sections during the 1880s (HER number 13584). The line crosses the Hornsea Three onshore cable corridor south of Weybourne.

1.6.2.48 The Midland and Great North Railway branch from Great Yarmouth to Sutton Bridge similarly opened in sections, that from Norwich to Melton Constable opening in 1882, with the extension to Holt opened in 1884 (HER number 13584). The line crosses the Hornsea Three onshore cable corridor south of Corpusty.

1.6.2.49 There are numerous remains dating from the two World Wars. Many are small scale and many of these located on the coast as coastal defences. In addition, at least two airfields are recorded.

1.6.2.50 A First World War Airfield is recorded to the north west of Saxthorpe and some 800 m east of the Hornsea Three onshore cable corridor (HER number 13625). Aerial photography dated to 1946 indicates that by this time the airfield had reverted to agricultural use.

1.6.2.51 A Second World War Airfield is recorded at Attlebridge, some 600 m west of the Hornsea Three onshore cable corridor (HER number 3063).

1.6.2.52 In addition, a further Second World War Airfield is recorded at Oulton, some 3.3 km east of the Hornsea Three onshore cable corridor. The airfield was opened in 1940 and used by both Royal Air Force and US Army Air Force bomber squadrons. It was closed after the war, and the runways were used as foundations for battery farm sheds. Some of the buildings remain, including the control tower. A large portion of the runways were removed in 1979 (HER number 7364). It is intended to use parts of the hardstanding of this airfield as the main construction compound (see volume 1, chapter 3: Project Description).

## 1.7 Screening of designated assets

1.7.1.1 A screening exercise has been undertaken to examine whether Hornsea Three would affect those designated assets in the Hornsea Three historic environment study area, in particular the wider buffers around the onshore HVAC booster station and HVDC converter/HVAC substation (see Table 1.1 and Table 1.2, annex 5.4: Screening Assessment – Onshore HVDC/HVAC substation and annex 5.5: Screening Assessment - Onshore HVAC Booster Station). This determined that Hornsea Three would have no effect on the majority of these designated assets. A number of designated assets within the Hornsea Three historic environment study area were selected for further assessment and their baselines examined in further detail, with the results provided in paragraphs 1.7.1.2 to 1.7.1.54 below.

**Table 1.1: Designated assets surrounding the onshore HVDC converter/HVAC substation.**

| Designated Asset Type | Totals |
|---|---|
| ***Designated assets onshore HVDC converter/HVAC substation*** | |
| **Listed Buildings (see below for numbers by Grade)** | |
| | |
| **Grade I** | |
| Within ZTV | 14 |
| Outside ZTV | 73 |
| **Subtotal Grade I** | **87** |
| | |
| **Grade II*** | |
| Within ZTV | 51 |
| Outside ZTV | 155 |
| **Subtotal Grade II*** | **206** |
| | |
| **Grade II** | |
| Within ZTV | 259 |
| Outside ZTV | 89 |
| **Subtotal Grade II** | **348** |
| | |
| ***Other Designated Assets onshore HVDC converter/HVAC substation*** | |
| | |
| **Conservation Area** | |
| Within ZTV | 28 |
| Outside ZTV | 14 |
| **Subtotal Conservation Areas** | **42** |
| | |
| **Registered Park and Garden** | |
| Within ZTV | 10 |
| Outside ZTV | 0 |
| **Subtotal Registered Park and Gardens** | **10** |
| | |
| **Scheduled Monument** | |
| Within ZTV | 26 |
| Outside ZTV | 22 |
| **Subtotal Scheduled Monuments** | **48** |

**Table 1.2: Designated assets surrounding the onshore HVAC booster station.**

| Designated Asset Type | Total number of assets |
|---|---|
| ***Designated assets onshore HVAC booster station*** | |
| **Listed Buildings** | |

| Designated Asset Type | Total number of assets |
|---|---|
| **Grade I** | |
| Within ZTV | 6 |
| Outside ZTV | 24 |
| **Subtotal Grade I** | **30** |
| | |
| **Grade II*** | |
| Within ZTV | 18 |
| Outside ZTV | 57 |
| **Subtotal Grade II*** | **75** |
| | |
| **Grade II** | |
| Within ZTV | 18 |
| Outside ZTV | 64 |
| **Subtotal Grade II** | **82** |
| | |
| ***Other Designated Assets onshore HVAC booster station*** | |
| **Conservation Area** | |
| Within ZTV | 13 |
| Outside ZTV | 16 |
| **Subtotal Conservation Areas** | **29** |
| | |
| **Registered Park and Garden** | |
| Within ZTV | 7 |
| Outside ZTV | 2 |
| **Subtotal Registered Park and Gardens** | **9** |
| | |
| **Scheduled Monument** | |
| Within ZTV | 1 |
| Outside ZTV | 28 |
| **Subtotal Scheduled Monuments** | **29** |

***Designated assets - Hornsea Three onshore cable corridor***

Voewood (list entry number 1001428)

1.7.1.2 Voewood, located some 730 m west of the Hornsea Three onshore cable corridor at its nearest point, is a registered park and garden registered at Grade II* (list entry number 1001428), comprising a formal sunken garden, kitchen garden, and orchard designed as an ensemble with an Arts and Crafts butterfly-plan house by Edward S Prior for Rev Percy Lloyd in 1903.

1.7.1.3 The registered park and garden contains seven listed buildings, with the principal building listed at Grade II* and the remainder listed at Grade II.

1.7.1.4 The list entry notes that Voewood lies to the north of Cromer Road, approximately 2 km to the north east of Holt, with a residential area to the east and plantations to the south. The flat, triangular-shaped site of approximately 7 ha is bounded to the east by Bridge Road, to the south by Cromer Road, and to the west by Kelling Hospital and grounds. The registered park and garden is bounded by deep belts of woodland on all sides.

Baconsthorpe Castle (list entry numbers 1049845 and 1013093).

1.7.1.5 The remains of Baconsthorpe Castle is a listed building (listed at Grade I, list entry number 1049845). Baconsthorpe Castle moated site with fortified house, gatehouse, courtyards and formal gardens is a Scheduled Monument (list entry number 1013093). The designated asset is located some 1.7 km south of the A148 Cromer Road east of Holt and some 330 m east of the nearest part of the Hornsea Three onshore cable corridor.

1.7.1.6 The moated site and fortified house known as Baconsthorpe Castle is situated across a small, north facing valley approximately 750 m north of Baconsthorpe village. The listed building includes the remains of the castle. The scheduled monument includes the moated site and the remains of the fortified house, a mere and associated earthworks extending from the moat on its eastern side, an outer gatehouse and courtyards to the south of the moated site, and the earthwork remains of formal gardens to the east of the outer gatehouse and south of the mere.

1.7.1.7 Baconsthorpe Castle is built on what is thought to have been the site of the earlier manor of Wood Hall. The main part of the fortified house was built during the middle and later 15th century, from approximately 1460-86, for John Heydon (died 1480) and Sir Henry Heydon (died 1504). The outer gatehouse and courtyards, with an associated barn, were built during the following century, when Baconsthorpe and the surrounding manors were farmed as a large and prosperous sheep run. By the early 17th century when alterations were made, the fortunes of the owning family were in decline, and in the mid-17th century after the civil war most of the buildings on the moated site were demolished and the gatehouse and outer walls dismantled. After the demolition, the outer gatehouse was converted for use as a dwelling, known as Baconsthorpe Hall, and was occupied as such until approximately 1920.

1.7.1.8 The list entry for the scheduled monument notes that fortified houses were residences belonging to some of the richest and most powerful members of society. Their design reflects a combination of domestic and military elements. As a rare monument type, with fewer than 200 identified examples, all examples exhibiting significant surviving archaeological remains are considered of national importance.

1.7.1.9 Baconsthorpe Castle is a well-documented example of a late medieval fortified house, unusual in plan and displaying a variety of well preserved and often architecturally impressive features, and the early post-medieval structures and garden remains associated with the moated site and fortified house are also of great interest.

Heydon Hall (list entry number 100187)

1.7.1.10 Heydon Hall, located some 650 m east of the Hornsea Three onshore cable corridor at its nearest point, is a registered park and garden, registered at Grade II* (list entry number 100187). It comprises an early 18th century landscape park and woodland, further developed in the 19th century, with late 19th century formal gardens and lawns beside the house. The registered park and garden at Heydon Hall contains 18 listed buildings. The principal building, Heywood Hall, is listed at Grade I and the remainder at Grade II.

1.7.1.11 Heydon Hall was built in the 1580s by Henry Dynne, auditor of the Queen's Exchequer, and may have been surrounded at this time by a small post-medieval deer park.

1.7.1.12 By 1776, walled gardens around the Hall had been removed to make space for a landscape park. Extensions to the Hall, and a programme of expansion of the park by planting belts of trees around the arable periphery, began after 1797. After 1827 a further period of change to the Hall and embellishment of the landscape began. By 1885 a formal yew-hedged parterre had been laid out beside the Hall and the park had been extended to approximately 200 ha, reaching the perimeter belts planted almost 100 years previously. During the 20th century the park contracted slightly from the northern boundary whilst the core has remained little altered.

1.7.1.13 The list entry notes that the approximately 160 ha site is surrounded by a farmed landscape in a well-wooded part of the county. The boundaries comprise perimeter. The ground at Heydon is virtually level with a slight slope down from north west to south east. The Hall stands in the centre of the northern section of the park. There is a more prominent slope in the extreme south of the park where the land falls towards a small stream, dammed in the 19th century to create a serpentine lake. The level landscape with its high proportion of trees and perimeter belts precludes views into and out of the site. Internally the main views are focused by the avenues which reach across the park to north and south of the Hall.

***Designated assets – onshore HVAC booster station***

Salle Park (list entry number 1001016)

1.7.1.14 Salle Park, a registered park and garden, registered at Grade II (List entry Number 1001016) is located some 130 m south west of the Hornsea Three onshore cable corridor and 7 km south of the onshore HVAC booster station. The principal building, Salle Park, the only listed building within the registered park and garden, is listed at Grade II *(list entry number 1170353).

1.7.1.15 The registered park and garden comprises a mid-18th century landscape park and 20th century topiary garden. The principal house was built during the early 1760s and replaced an earlier building. The park was laid out around the new hall.

1.7.1.16 The list entry notes that the registered park and garden is located in a very rural setting and is almost entirely surrounded by dense perimeter plantations. The southern boundary is formed by the B1145 Reepham to Cawston road, whilst to the west and north are minor country roads, beyond which lies a mix of open farmland and woodland blocks. The ground at Salle is generally level with a slight fall close to the southern boundary. There are vistas across open parkland with scattered mature trees to the north and south of the hall. A double avenue of oaks, partly replanted in the 1990s, runs north-north-east from the southern boundary through the park, passing approximately 100 m to the west of the hall. This avenue is shown on Faden's map of 1797 aligned on the site of the old hall rather than the new house and in 1841 some of the trees were described as very mature.

Mannington Hall list entry number 1001009

1.7.1.17 Mannington Hall (a registered park and garden, registered at Grade II list entry number 1001009) is located some 2 km east of the onshore HVAC booster station. The principal building is listed at Grade I. There are seven further listed buildings within the registered park and garden, the remains of the Parish Church of Mannington is listed at Grade II* (list entry number 1049215) and the remainder at Grade II.

1.7.1.18 The principal building, Mannington Hall (listed at Grade I, list entry number 1304622), was built in the 1460s by William Lumner, probably on an older moated site. An estate map of 1550 records the existence of fishponds but no detail of a garden. In 1736 Mannington was purchased by Horatio Walpole who also owned the adjoining park and estate attached to Wolterton Hall. A map of the estate produced by Walpole in 1742 records gardens within the moat and a long axial avenue to the west, together with an area described as 'Park' to the south. Mannington functioned as a farmhouse until 1864 when it became the home of another Horatio Walpole, fourth Earl of Orford. He carried out various alterations to the Hall and garden but being an enthusiast for gothic architecture he retained much of its medieval appearance.

1.7.1.19 The park boundaries comprise a pasture field and Duffers Wood on raised ground to the east, woodland and fields to the north, and open fields and plantations to the south and west where the approximately 1 km long avenue extends through the countryside. The land form is gently rolling, with the site sitting in a narrow valley running north to south created by a tributary of the River Bure. The ground falls gently from east and west to the river, with flat land to the north and south. Mannington enjoys a very rural setting away from other settlements and is generally an enclosed, inward-looking site.

Wolterton Hall list entry number 1001022

1.7.1.20 The registered park and garden at Wolterton Hall (registered at Grade II*, list entry number 1001022) is located some 2.7 km west of the onshore HVAC booster station at its nearest point. There are a total of 13 listed buildings within the registered park and garden. The principal building, Wolterton Hall, is listed at Grade I, two further buildings are listed at Grade II* and the remainder at Grade II.

1.7.1.21 The park and woodland date from the early 18th century and were designed as a collaboration between Thomas Ripley, Charles Bridgeman, Horatio Walpole and others, surrounding an early 18th century Palladian mansion with mid-19th century gardens laid out by William Sawrey Gilpin.

1.7.1.22 The principal building, Wolterton Hall is listed at Grade I and comprises a large country house of brick and stone under a slate roof. It is built in a rectangular plan in the Palladian style, with later additions. The north entrance front has three storeys and seven bays with a central door flanked by pilasters.

1.7.1.23 The list entry notes that the Hall sits at the centre of the park looking south over the lake and north over the park, with Blickling Folly just visible on the skyline. There is also a shorter view north, defined by a 20th century avenue. The main views into the site are from the west, the Mannington road having good views of the Hall and church. There are also glimpsed views of the Hall from the Itteringham road and through the trees from the north drive.

Barningham Hall (list entry number 1001002)

1.7.1.24 Barningham Hall is located some 3.2 km north east of the onshore HVAC booster station at its nearest point. Barningham Hall is a registered park and garden, registered at Grade II (list entry number 1001002), comprising an early 19th century park, garden and walled garden, probably laid out with advice from Humphry Repton, surrounding an early 17th century hall. There are a total of 11 listed buildings within the registered park and garden. The principal building, Barningham Hall, is listed at Grade I, two further buildings are listed at Grade II* and the remainder at Grade II.

1.7.1.25 Barningham Hall was built in approximately 1612 for Sir Edward Paston. William Faden's map of 1797 does not show a park, but does indicate designed elements in the landscape, including an avenue to the west of the house. The park was apparently laid out soon after 1815, when road closure orders were issued. The design of the park is attributed at least in part to Humphrey Repton, who worked on the principal building in the first decade of the 9th century (Dallas, Last and Williamson 2013: 276). There were minor changes to the park during the 19th century. The western avenue appears to have been replanted at this time and it was extensively ploughed during the Second World War (Dallas, Last and Williamson 2013: 276-277).

1.7.1.26 The park has dense tree cover to the east and has perimeter woodlands to the north west and south west, leaving open sections which offer views across the park towards the Hall. The ground at Barningham is mainly level with a slight overall slope from west to east, rising again eastwards beyond the lake. There are gentle undulations in the north west section of the park.

***Designated assets - onshore HVDC converter/HVAC substation***

Venta Icenorum: Roman town and associated prehistoric and medieval remains (list entry number 1021463), Roman sites outside town walls (list entry number 1003954) and Anglo-Saxon cemetery (list entry number 1003163)

1.7.1.27 Venta Icenorum: Roman town and associated prehistoric and medieval remains (list entry number 1021463) is located immediately to the east of the mainline railway, some 1.6 km east of the onshore HVDC converter/HVAC substation. Roman sites outside town walls (list entry number 1003954) is located to the north east of Caistor Hall Hotel, some 2.4 km north east of the onshore HVDC converter/HVAC substation and some 450 m north east of the scheduled element of Venta Icenorum: The Anglo-Saxon cemetery (list entry number 1003163) which is located on a gently sloping site overlooking the valley of the River Yare some 2.2 km east of the proposed onshore HVDC converter/HVAC substation and some 200 m east of the scheduled element of Venta Icenorum.

1.7.1.28 The Roman road from Colchester to Venta Icenorum runs some 600 m to the east of the south-eastern end of the Hornsea Three onshore cable corridor. The Romano-British town of Venta Icenorum, connects with the Roman road. The town was founded in approximately 60 AD and occupied throughout the Roman period. Venta Icenorum was the largest and most important Roman town in northern East Anglia and is one of only three civitas capitals to survive in a wholly greenfield location in England.

1.7.1.29 Remains cover a wide area. The buried remains of a triple-ditch defensive system, predating the later Roman town, enclosed a larger, broadly kite-shaped area which may represent a defended Late Iron Age tribal centre similar to that at Colchester. The early Roman settlement covered an area approximately twice the size of the later walled town. The ramparts and ditch of the defended area of the Romano-British town survive well for most of the circuit with some standing 3rd century walling also surviving in places. The late 1st century buildings were mostly of timber with wattle and daub walling. The town seems to have grown in prosperity and early 2nd century houses are of stone with painted wall plaster. There are major public buildings including the forum and basilica complex and public baths. The 3rd century town was reduced in size and enclosed with flint and stone walls with tile coursing which are probably contemporary with the rebuilt forum and basilica complex. The evidence indicates that parts of the area were occupied until the 8th century.

1.7.1.30 Excavation within the defended, walled area has demonstrated the survival of buildings and features below ground. To the north and south, vestiges of the early gridded street pattern visible as cropmarks have been identified beyond the walled area. Finds of flint artefacts together with early medieval and medieval material from within and near the town demonstrate prehistoric and post-Roman activity on the site. The site is designated through two scheduled monuments (list entry numbers 1013873 and 1021463 (Bowden and White, 2011).

Church of St Edmund (list entry number 1373145)

1.7.1.31 The Church of St Edmund (listed at Grade II*, list entry number 1373145) is located some 1.9 km east of the onshore HVDC converter/HVAC substation at Caistor St Edmund. The church lies within the south east angle of the vallum of the Roman town and is surrounded by the scheduled area of Venta Icenorum: Roman town and associated prehistoric and medieval remains (list entry number 1021463), although it does not form part of the scheduled monument.

1.7.1.32 The building is of the early 14th century and later, although parts of the fabric, including the south nave wall with a blocked 11th century lancet window to the centre and a blocked 11th century doorway set high and to the west, indicate earlier origins. The fabric comprises uncoursed broken flint which is mainly rendered. There are stone and brick dressings and a slate roof. The west tower, nave and chancel are in one under two roofs separated by a gable parapet. The west nave has full height wide shallow buttresses, that to south having Roman tiles to the quoins.

1.7.1.33 The nearby Old Hall (list entry number 1050563) is located some 400 m north of the Church of St Edmund. The group of buildings at Caistor St Edmund also includes Queen Anne Cottage (list entry number 1050559), The Old Rectory (list entry number 1050561), Caistor Hall (list entry number 1050562) and Barn about 120 m west-south-west of Old Hall (list entry number 1241166). Each of these buildings is listed at Grade II.

Gowthorpe Manor House (list entry number 1050515) and Barn some 40 m west of Gowthorpe Manor House (list entry number 13566141)

1.7.1.34 Gowthorpe Manor House (listed at Grade II*, list entry number 1050515) is located adjacent to and associated with the Gazebo approximately 10 m south of Gowthorpe Manor House (list entry number 1050516), Cowshed some 10 m north west of Barn at Gowthorpe Manor House (list entry number 1050517) and Garden Walls and Gate Piers immediately south west of Gowthorpe Manor House (list entry number 1170357). Slightly further away is Barn approximately 40 m West of Gowthorpe Manor House (listed at Grade II*, list entry number 1366141). The group of designated assets are located to the east of Swardeston and some 750 m to the south of the onshore HVDC converter/HVAC substation.

1.7.1.35 Gowthorpe Manor House dates from the 16th and 17th centuries with additions and alterations made in 1908, for the Styward (Steward) family. The building is of two storeys and an attic of brick, part of which encases a timber frame. The roof is of plain tiles with crowstepped gables.

1.7.1.36 The brick encased timber framed range to the west is of the early 16th century, while the stair turret to the rear dates from the mid-16th century. There is a T- shaped 17th century brick range to the east. These ranges are joined by narrow early-17th century link. The north east facing windows in the top storey of the 17th century brick range, from where there might conceivably be views towards the proposed onshore HVDC converter/HVAC substation are blocked. The extensive service additions to the north east are dated 1908 and incorporate some 17th century brickwork.

1.7.1.37 The house is located in extensive grounds which incorporate a number of smaller buildings with walled gardens to the south west. The gardens to the north are well enclosed by hedgerows, limiting views including in winter.

1.7.1.38 Gowthorpe is shown on Fadens map of 1797 Norfolk, and in further detail on the first edition OS six-inch map surveyed in 1881, when it was called Swardeston Hall. There is a large pond, which remains extant, to the south west of Gowthorpe Manor. The listed buildings are shown with the buildings of the farmyard to their north and to the north of this a track, which remains as a right or way is shown leading north east towards Mangreen.

Mangreen Hall (list entry number 1366150)

1.7.1.39 Mangreen Hall (listed at Grade II*, list entry number 1366150) is located adjacent to and associated with Mangreen Lodge (list entry number 1050518) approximately 50 m east of Mangreen Hall, Wattle Cottage (list entry number 1050519) at TG 2130 0308 some 230 m west-north-west of Mangreen Hall, and Barn at Hall Farm with attached Cattle Shelters (list entry number 1170403), located on the south side of Mangreen Lane. Each of these buildings is listed at Grade II. The group of designated assets are located some 290 m south east of the onshore HVDC converter/HVAC substation.

1.7.1.40 Mangreen Hall is a house with a facade of approximately 1700 with additions on an earlier core. Considerable additions were made in approximately 1910. The building is of two storeys with an attic, double depth and in brick in Flemish bond with coloured headers, plain tiles. The principal facade is to the north and comprises five bays, with two shaped gables across the full width with decorative tie irons. The range to the right has a gable to north and is probably 17th century. The attached range to the left dates to approximately 1700. There are various additions to the rear dating to approximately 1910.

1.7.1.41 Mangreen Lodge some 50 m east of Mangreen Hall (list entry number 1050518, listed at Grade II) comprises the former stables to Mangreen Hall, now forming two dwellings. The building dates to approximately 1700 and is of two storeys and an attic of brick in Flemish bond, with a pantile roof. There is an addition to the right and a range to the rear of the late 20th century. The principal facade is to the west.

1.7.1.42 An estate map of 1846 shows Mangreen Hall surrounded to the west, north and east by a small park, with an avenue of trees leading north from the principal building. This disposition remained on the first edition OS six-inch map surveyed in 1881. The avenue has been removed and the parkland ploughed. A clump, not shown on earlier maps, is now located approximately 170 m to the north of Mangreen Hall.

Intwood Hall (list entry number 1000320)

1.7.1.43 Intwood Hall (a registered park and garden, registered at Grade II*, List entry Number 1000320) is located some 1.2 km north west of the onshore HVDC converter/HVAC substation and immediately adjacent to the cable route corridor. Intwood Hall contains three listed buildings, each listed at Grade II.

1.7.1.44 Intwood Hall (unlisted) is a 16th century mansion of the Gresham family rebuilt during the 19th century, although fragments of the original building survive (Dallas, Last and Williamson 2013: 233). The present house is in the Jacobethan style. It is constructed in two storeys with a crenellated roof, mullioned windows and ornamental chimney stacks. The three-bay south front faces the park and has a central doorway, with a service wing to the east incorporating a late 20th century orangery.

1.7.1.45 The gardens surround Intwood Hall and comprise five walled garden compartments (some listed Grade II) built of red brick with partly crenellated tops, constructed over four centuries from the mid-16th century onwards.

1.7.1.46 Intwood Hall, the church and the land to the south are shown on a later copy of a map of 1729 held in the Norfolk Record Office. At this time they were in the hands of Thomas Rackham. The area now forming the park was subdivided and there is no evidence of obvious parkland features on the map. By 1785 a small park had apparently been formed to the south of the hall. A thin tree belt screened the church and dovecote to the east. The layout had been altered by 1845 when tree belts screened the park except to the south. Here there were views into the field, which remained largely agricultural in nature but also contained a large clump, with further plantations to the south (Dallas, Last and Williamson 2013: 234-235).

1.7.1.47 The park today is laid mainly to pasture and scattered with trees of mixed ages and species. A high proportion of the mature mid-18th century timber is oak with plane, horse chestnut, and ash. A knoll on slightly raised ground to the south beside the road is more densely planted to direct the eye to either side of the knoll. The road which cuts through the park is hidden behind a hedge and beyond it the ploughed section of the park is backed by enclosing plantations which terminate the view from the Hall.

Keswick Hall (list entry number:1306331)

1.7.1.48 Keswick Hall, (listed at Grade II, list entry number 1306331) is located within parkland on the north side of the A47 road, some 550 m north west of the onshore HVDC converter/HVAC substation.

1.7.1.49 The building comprises a house, built on a new site of 1817, with additions of approximately 1839, by William Wilkins for Richard Hudson Gurney (Dallas, Last and Williamson 2013: 241). The building is double depth, of Gault brick with stone and rendered dressings under a slate roof. The range to the south is of seven bays and three storeys. There is an attached two-storeyed single range to the north with a single-storeyed addition. There is an addition of 1839 to the left of the south facade with a large central semi-circular bay. The extensive additions to the left and right of 1951 for the Teacher Training College which occupied the site are not listed.

1.7.1.50 The parkland was designed by William Sawrey Gilpin in 1837, at the time the alterations to the hall were being considered. The park was belted to the north, west and south, while open to the east and contained a number of clumps. The hall was set in a large pleasure ground, divided from the park by a terrace walk. Early maps, including an estate map of 1841 held in the Norfolk Record Office, show the layout of the newly extended hall, with the terrace and park. There were changes to the grounds in the later 19th century. The hall was occupied by a teacher training college following the Second World War. This use ended during the 1980s and the hall converted into offices and flats. Much of the 19th century parkland survives intact, including a large Wellingtonia which serves as a reference point in local views (Dallas, Last and Williamson 2013: 241-2).

1.7.1.51 There is extensive, relatively modern, residential development in the grounds. The surrounding parkland is subdivided by fences. Much of the southern part of the park is used as a riding stable accessed along Bridle Lane to the west of the principal building. Horses graze the park. The A147 road forms the boundary of the park to the south. Noise from the road is intrusive. Traffic on the road can be glimpsed in winter views.

The Church of St Mary (list entry number 1050556)

1.7.1.52 The Church of St Mary (list entry number 1050556) is located some 1.1 km south west of the onshore HVDC converter/HVAC substation.

1.7.1.53 The building comprises a parish church of the 11th and 14th centuries, of roughly coursed flint with stone dressings under a lead roof. The west tower, nave and chancel are in one and there is a south porch.

1.7.1.54 The church is located within a churchyard which is itself surrounded by residential buildings including the Old Rectory (itself listed at Grade II, list entry number 1050557) immediately to its west. The churchyard is bounded to the north by dense woodland.

## 1.8 Conclusions

1.8.1.1 There are nine scheduled monuments, five Grade I listed buildings, 22 Grade II* listed buildings, one hundred twenty Grade II listed buildings, four registered park and gardens and six conservation areas located either partly or wholly within the historic environment study area. In addition, there are a number of further designated assets surrounding the onshore HVAC booster station and the HVDC converter/HVAC substation. The desk assessment has indicated that there are no designated assets within the footprint of the Hornsea Three onshore cable corridor, onshore HVAC booster station or onshore HVDC converter/HVAC substation.

1.8.1.2 The Hornsea Three onshore cable corridor runs through a landscape containing a high density of recorded remains of most periods, from early prehistory onwards. On the basis of available documentary, cartographic and other desk-based sources, there is potential for the onshore infrastructure associated with Hornsea Three to affect a number of known sites of archaeological sensitivity as well as running through an area where such sites are likely to occur. It is noted that the onshore geophysical survey undertaken in connection with Hornsea Three found no signs of archaeological remains either at the location of the onshore HVAC booster station or at the location of the onshore HVDC converter/HVAC substation, though remains were found in several locations along the Hornsea Three onshore cable corridor (see volume 6, annex 5.6: Onshore Geophysical Survey Report).

1.8.1.3 Potential impacts are considered in more detail in volume 3, chapter 5: Historic Environment.

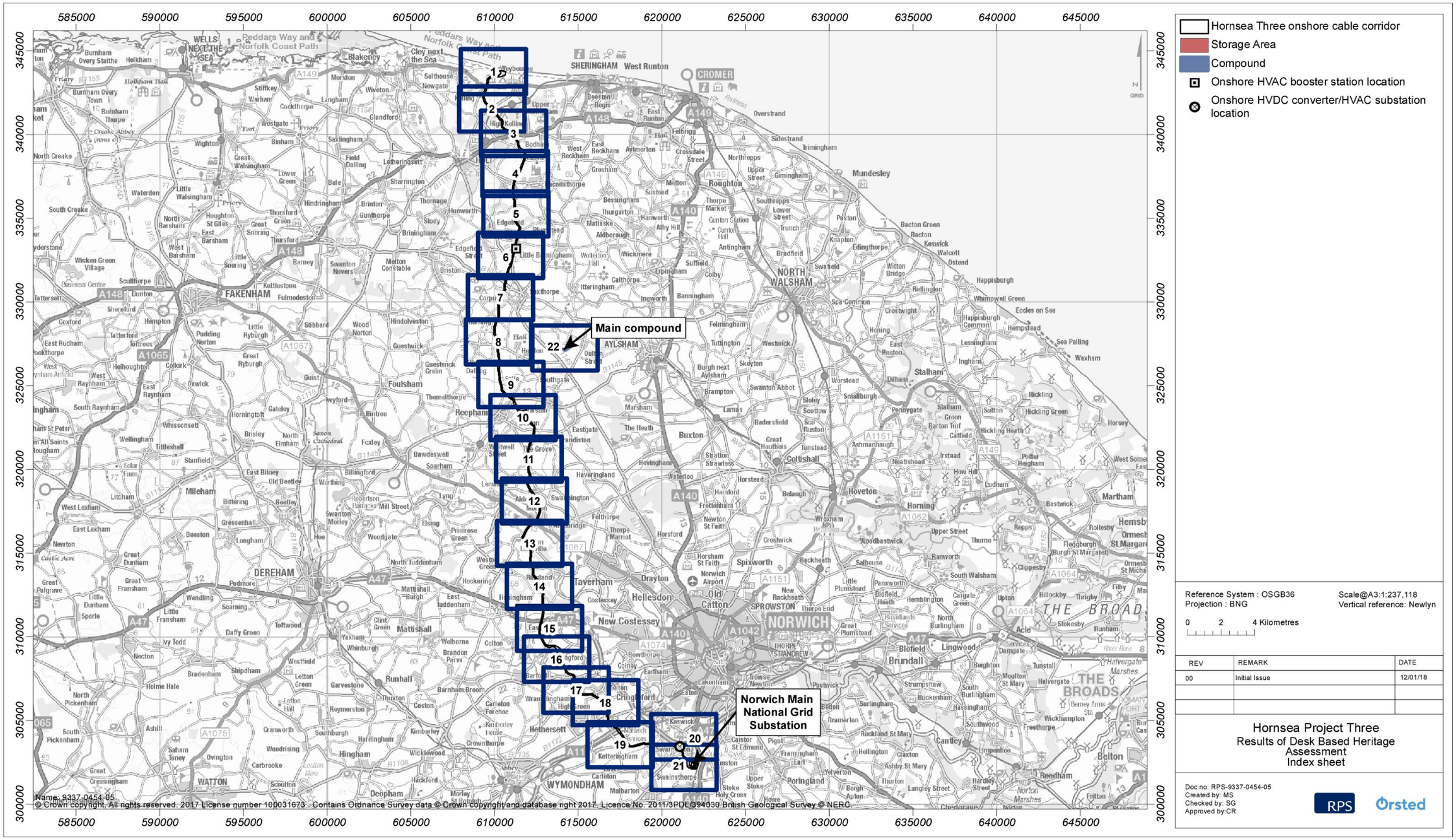
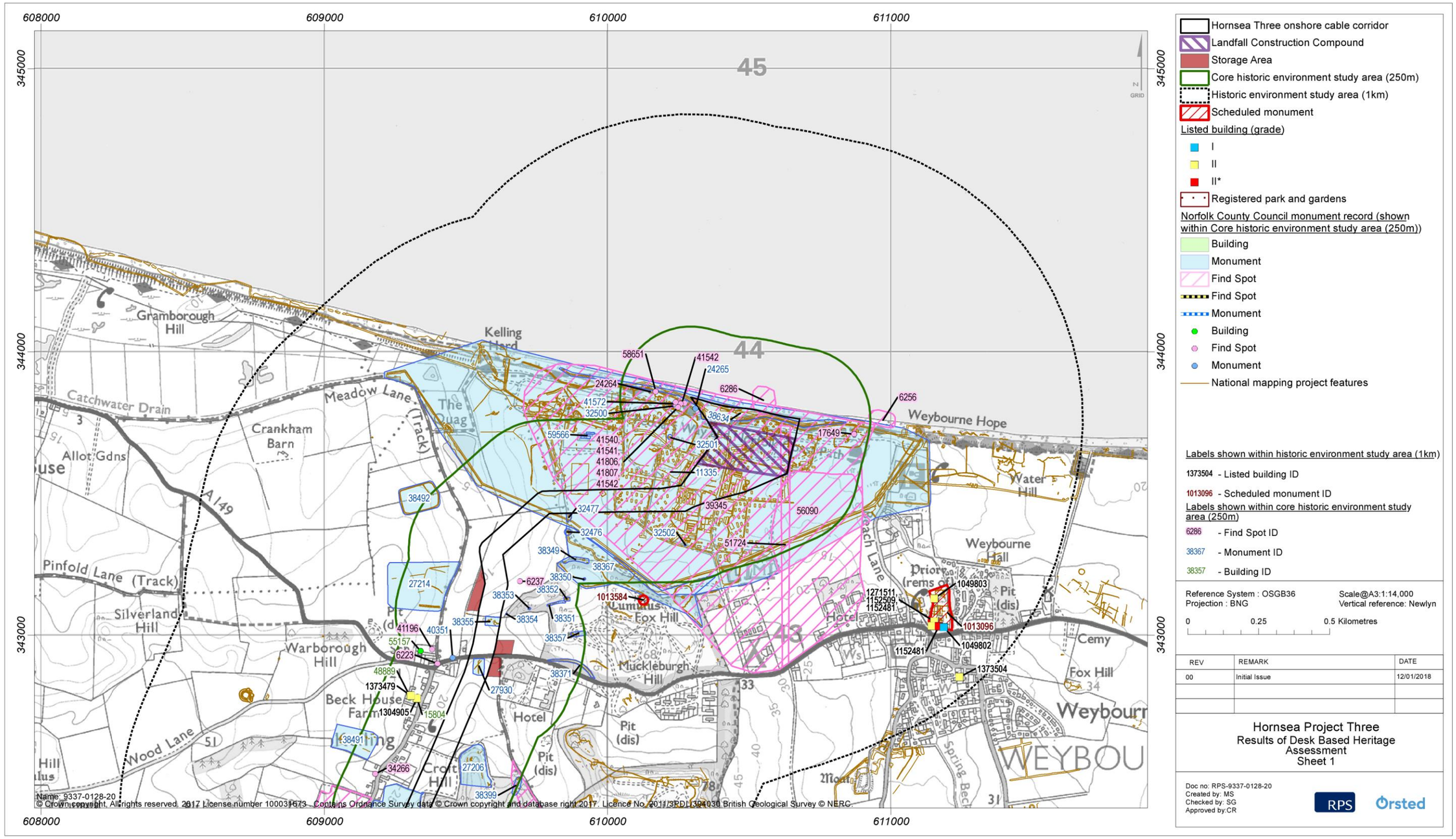



**Figure 1.1: Results of Desk Based Heritage Assessment.**

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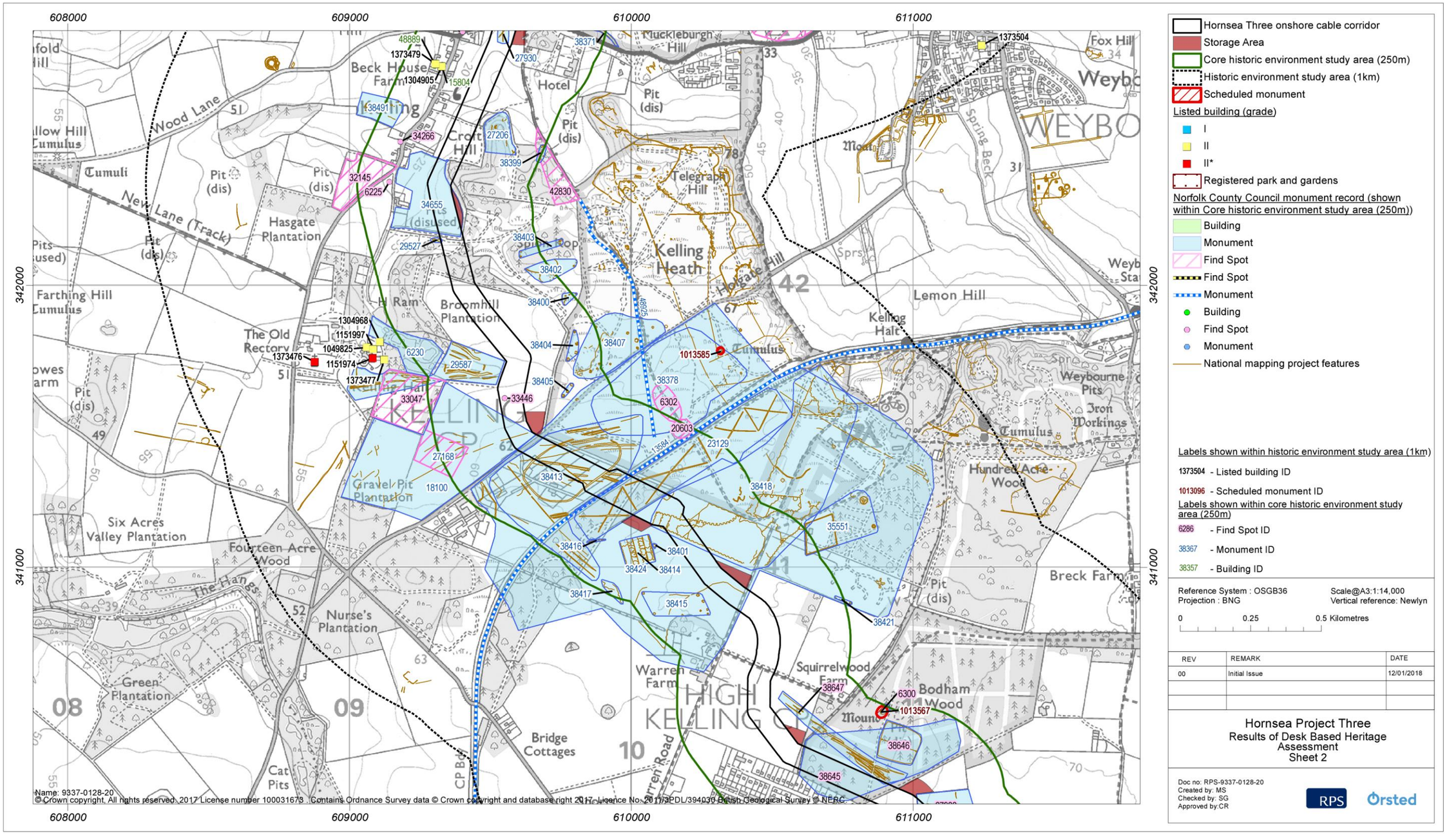


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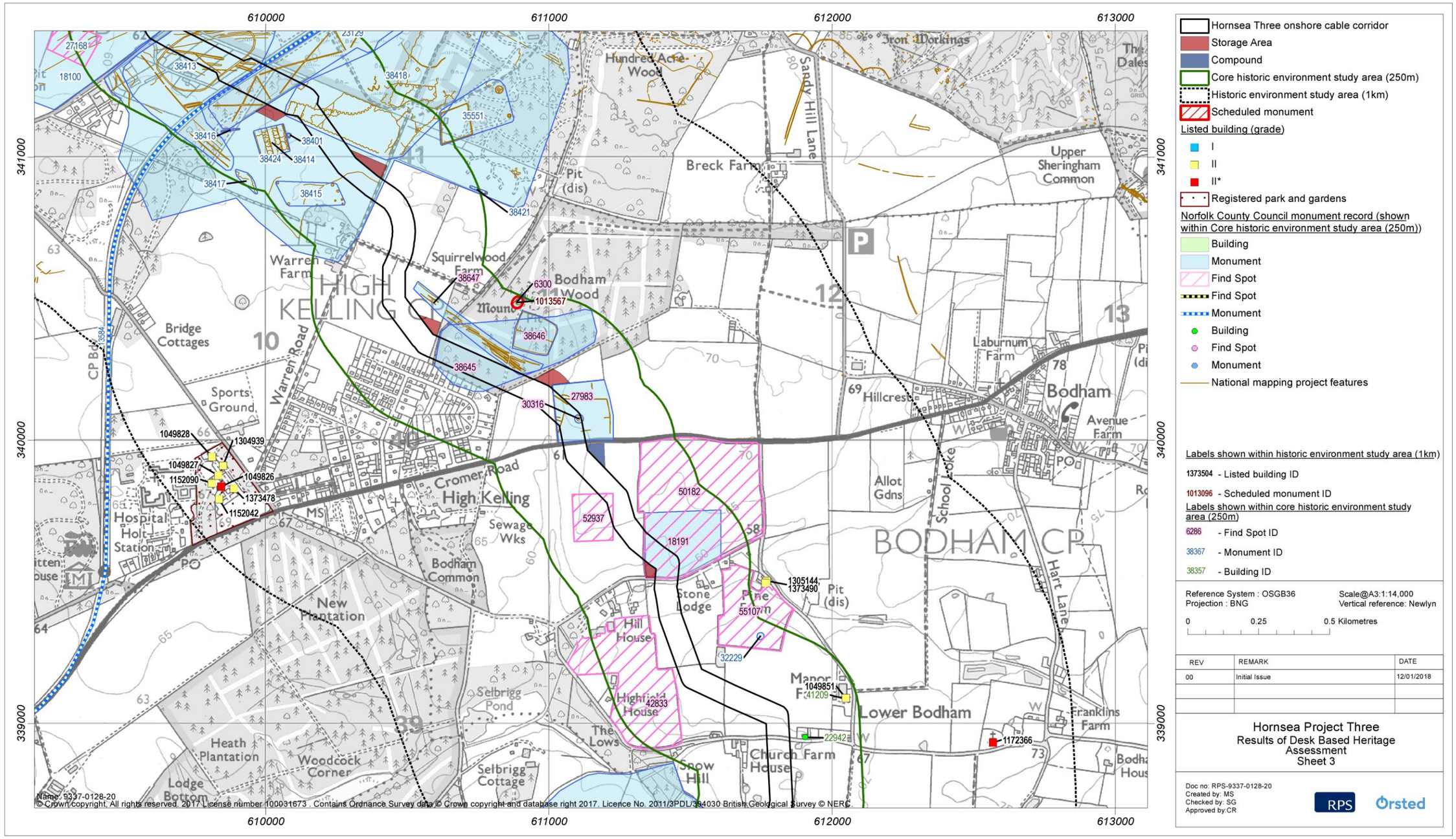


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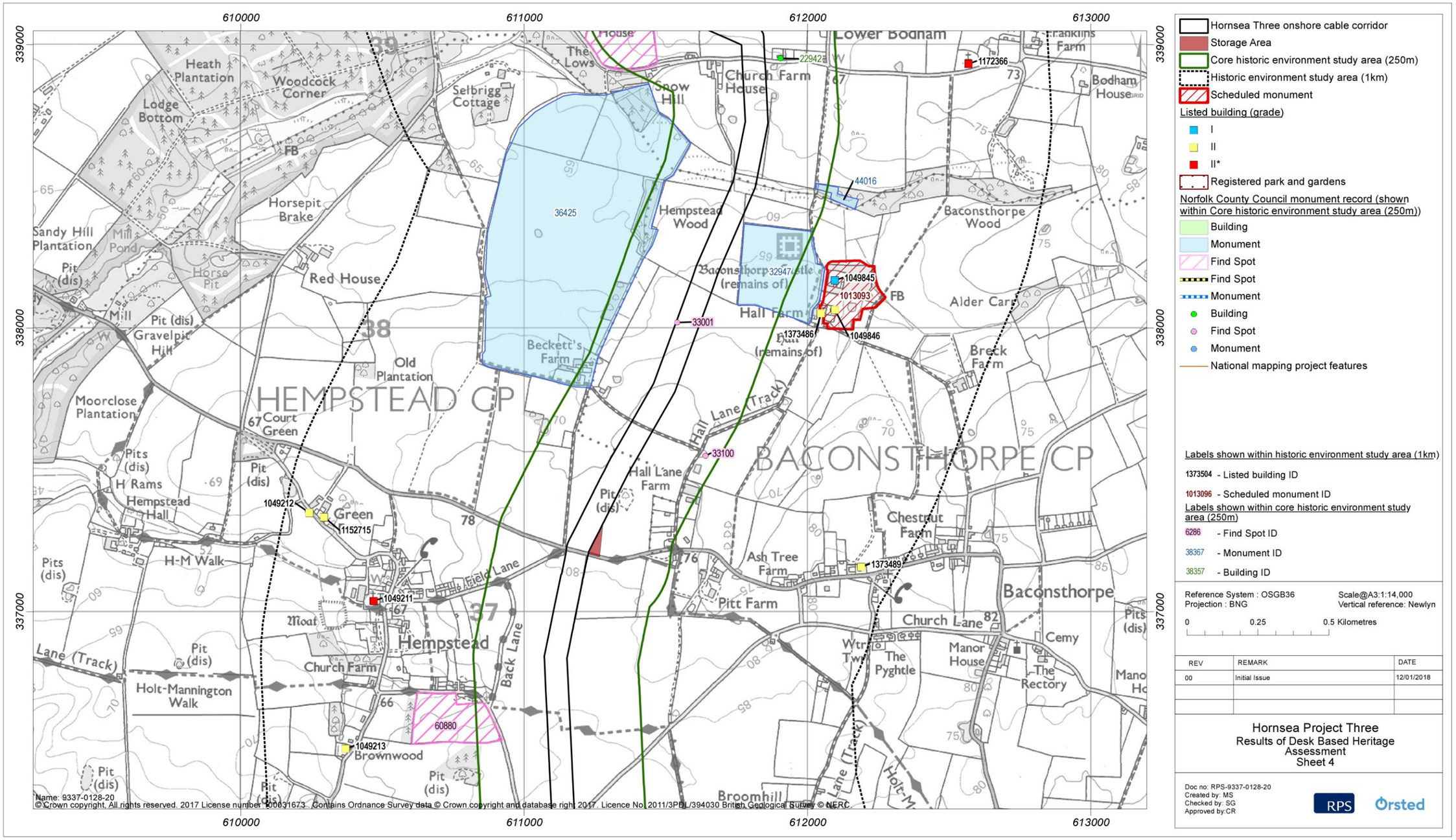


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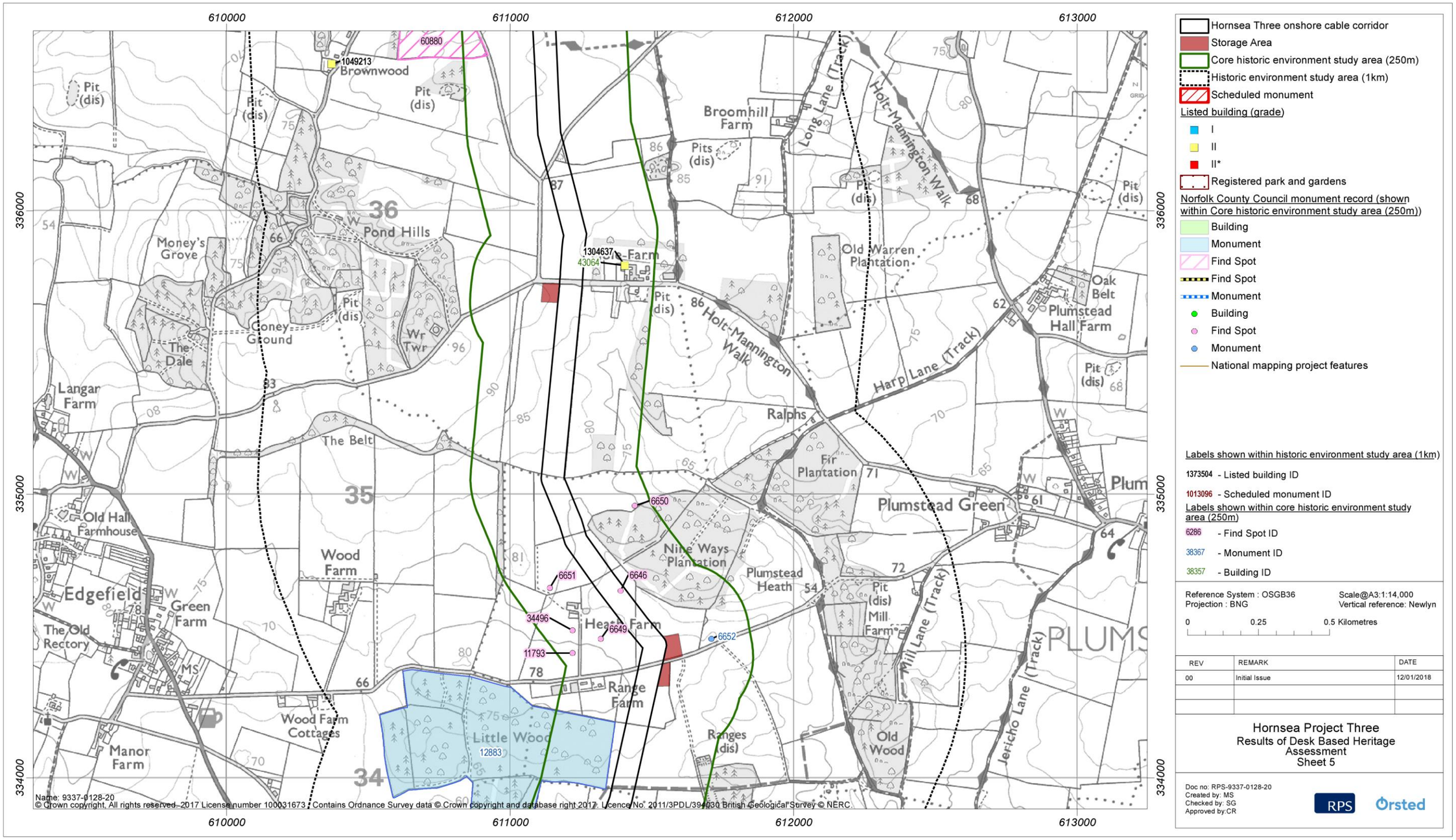


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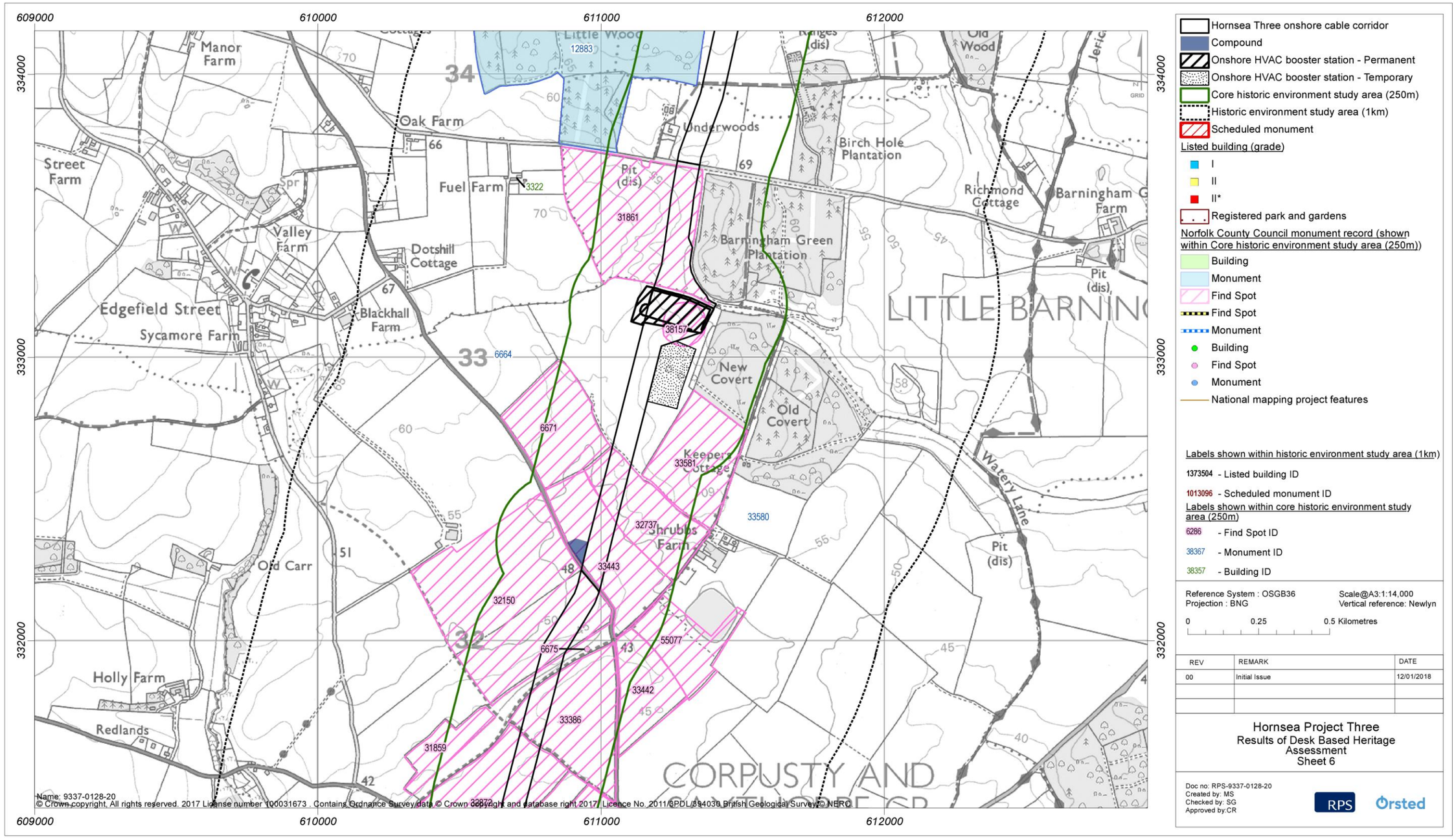


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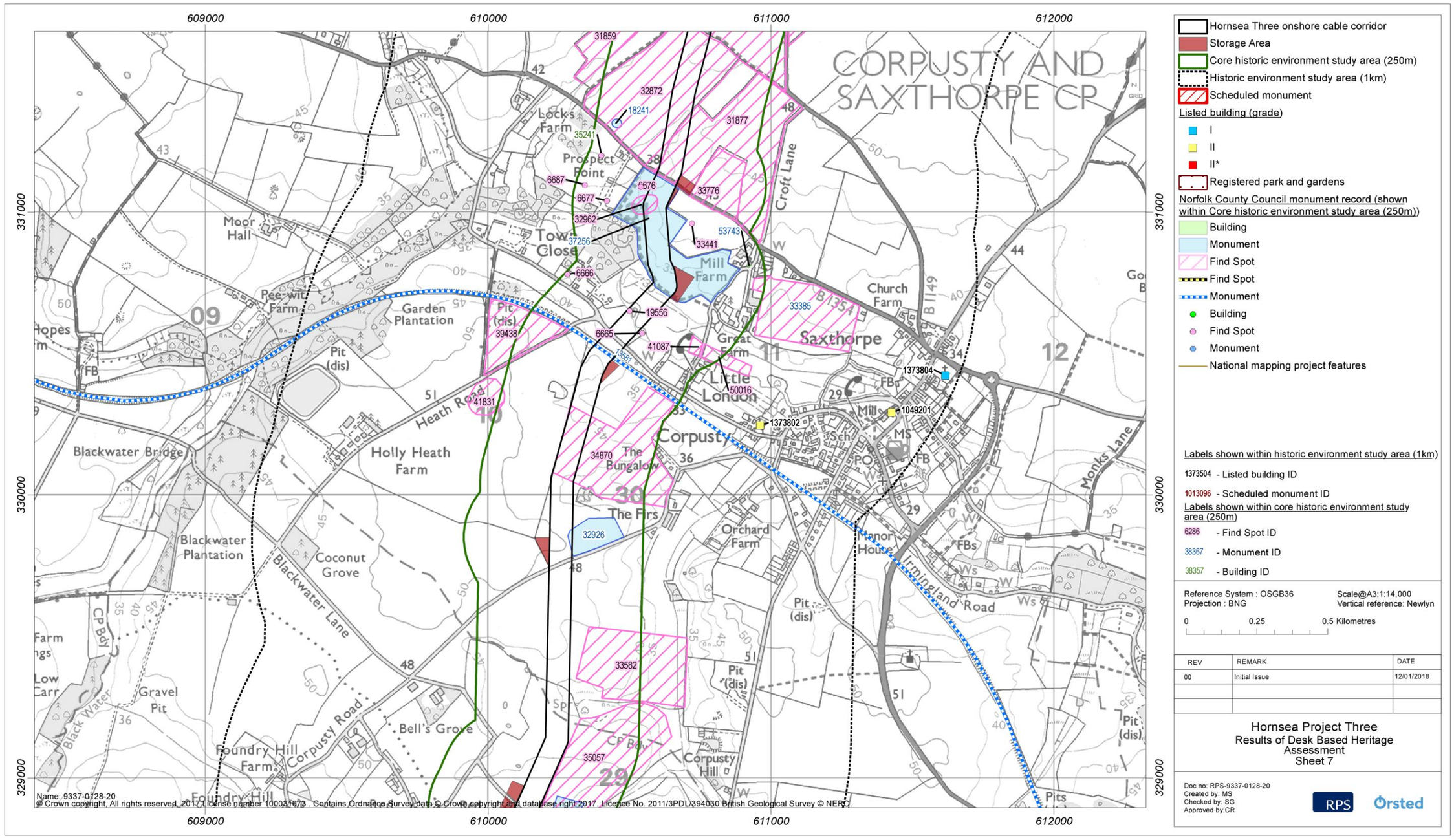


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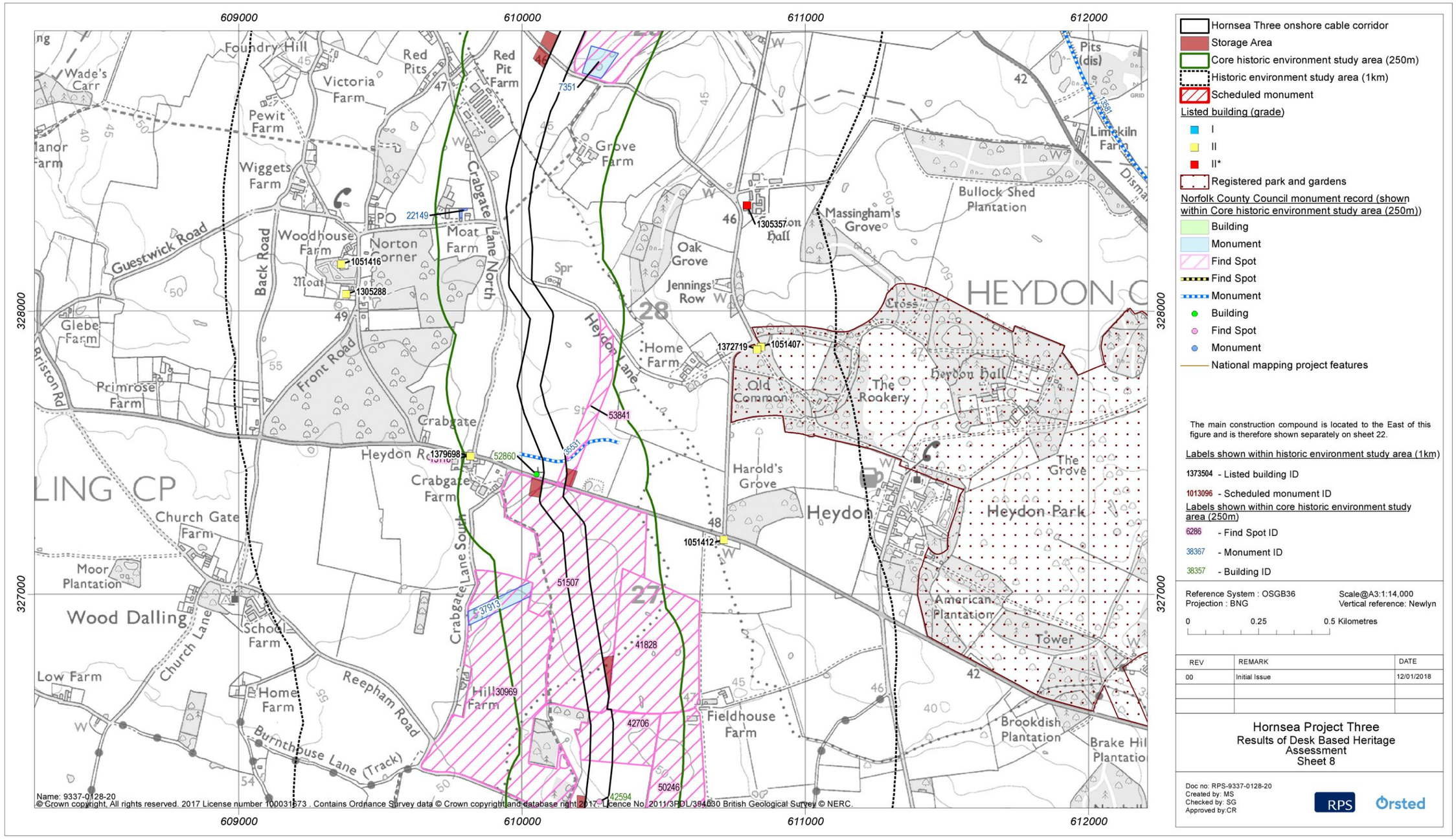


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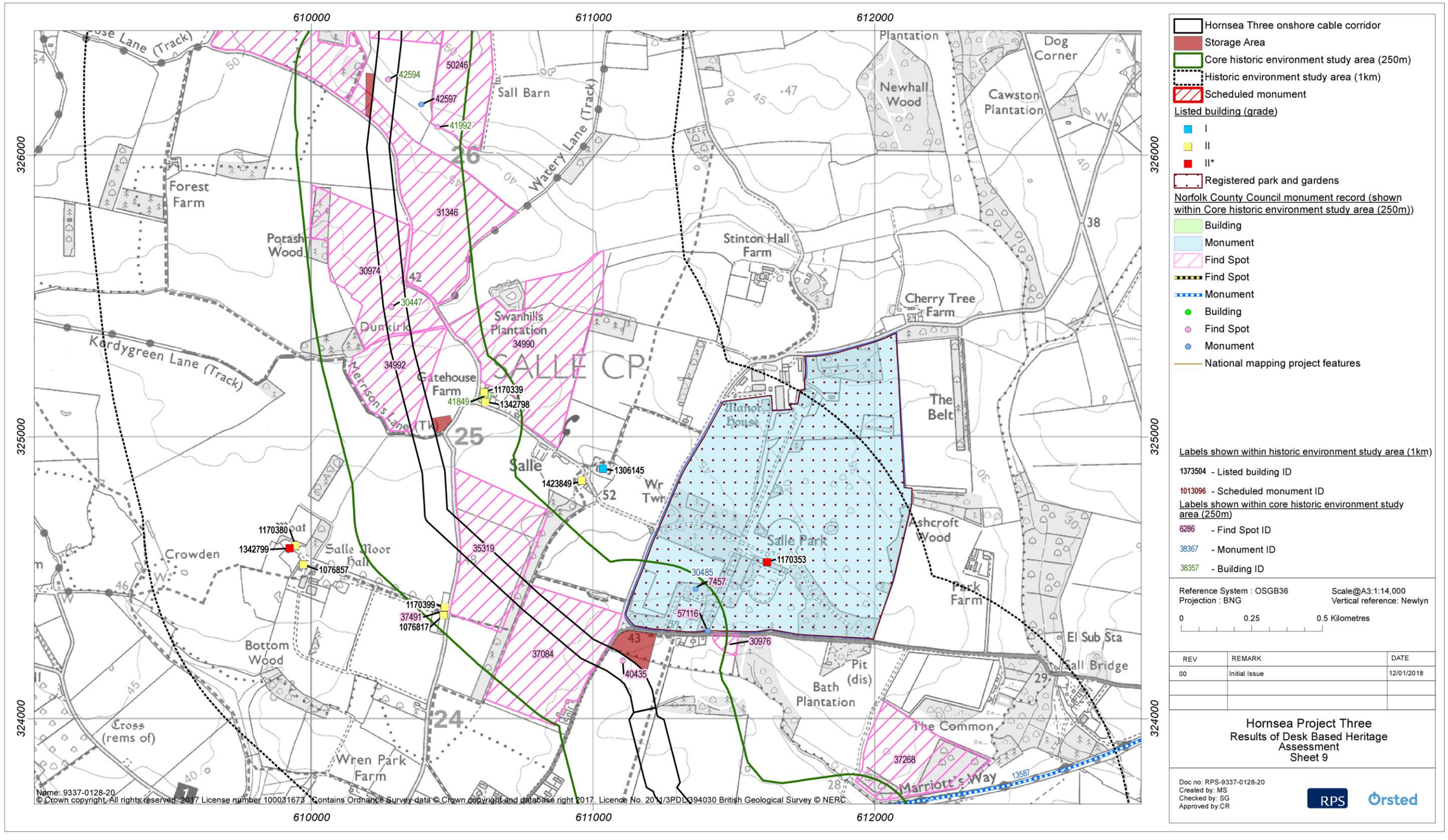


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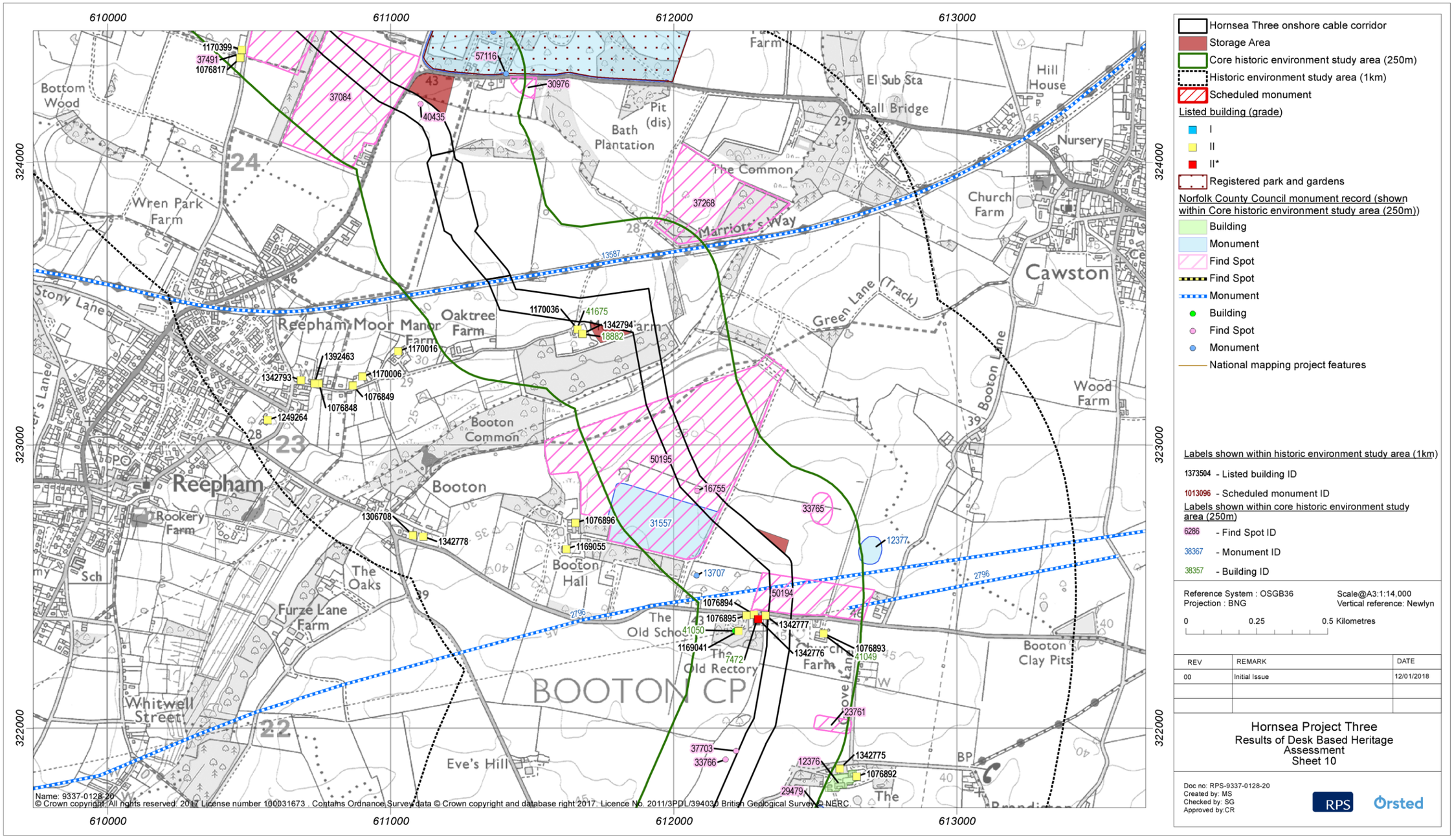


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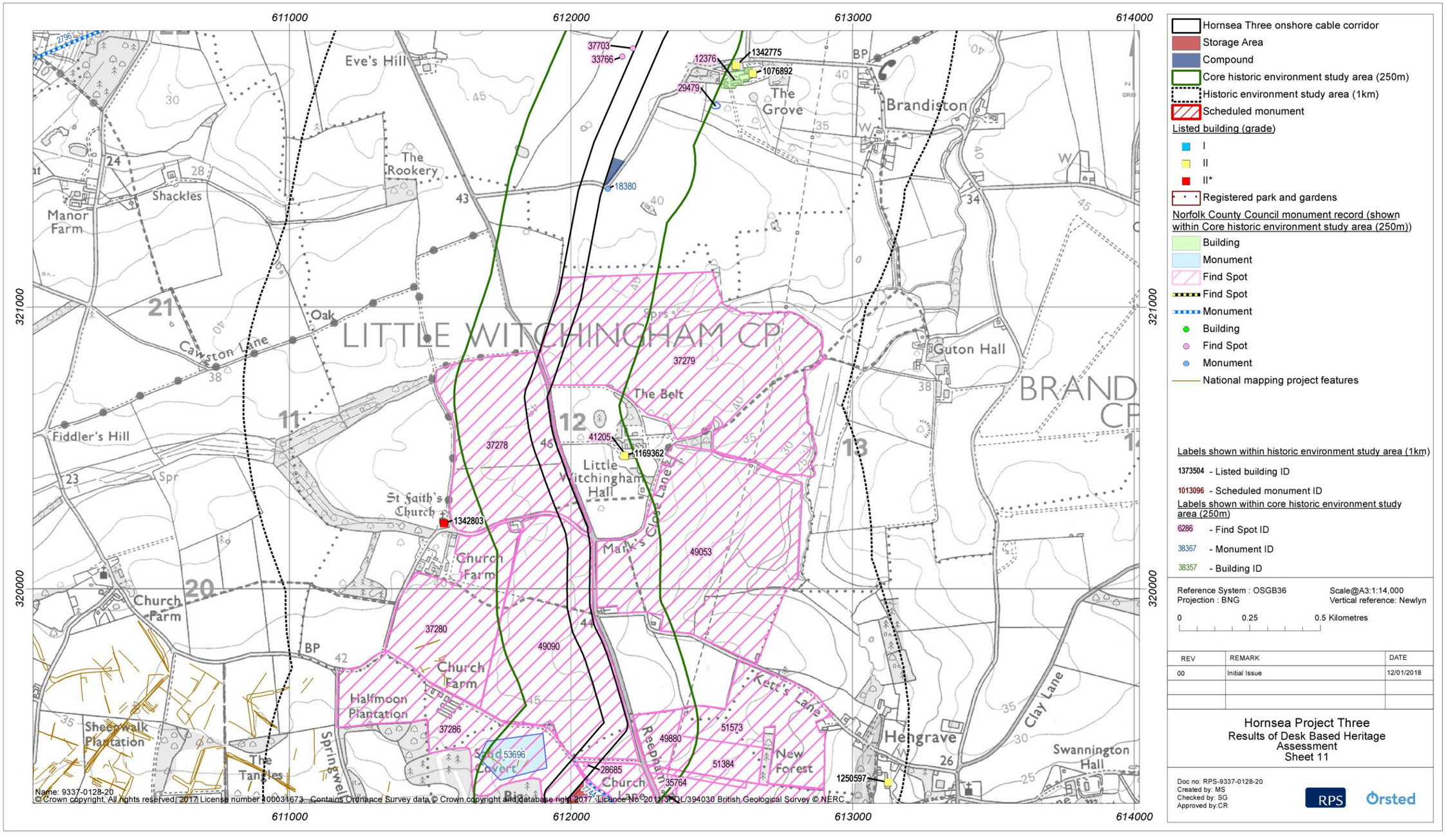


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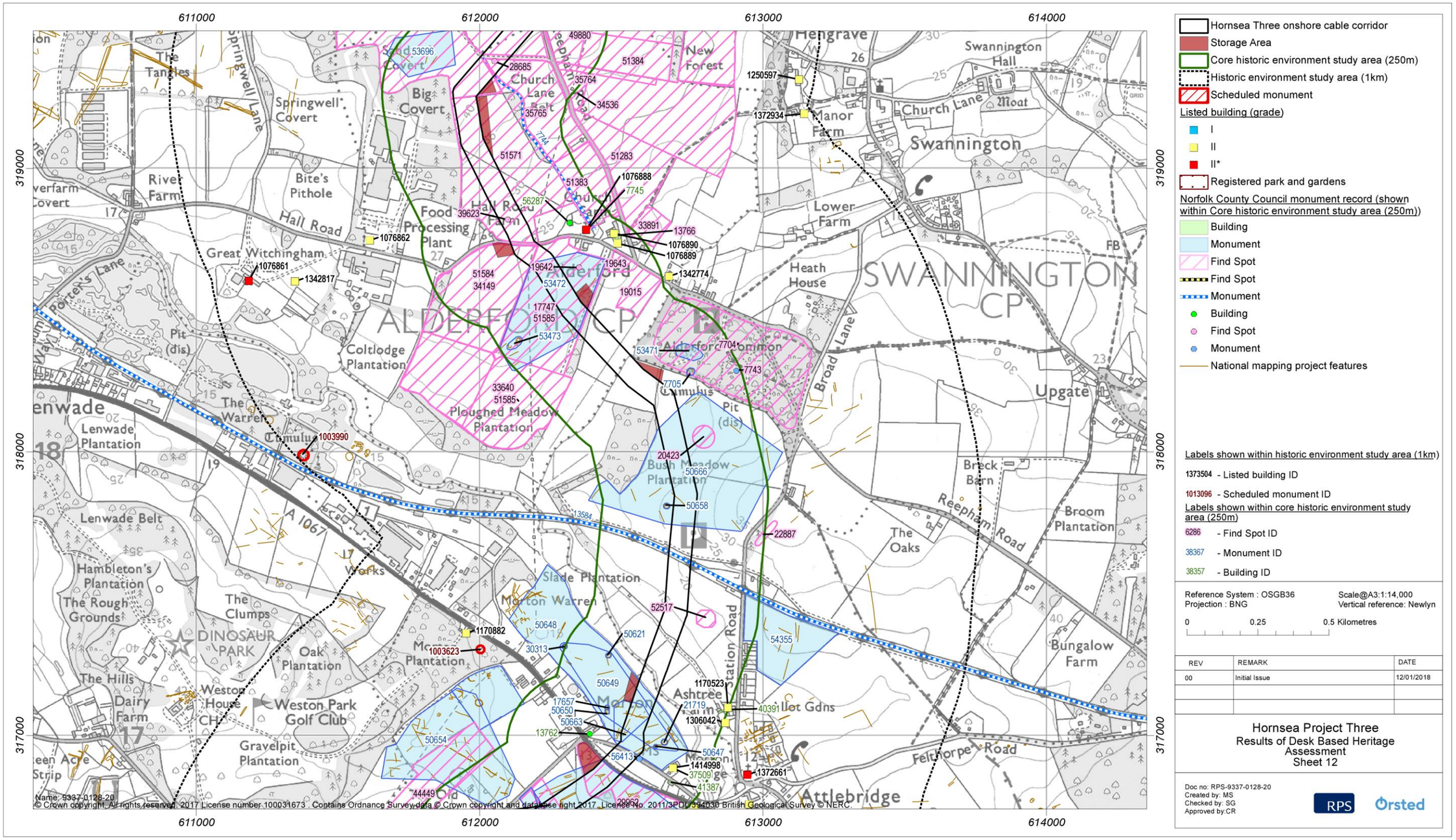


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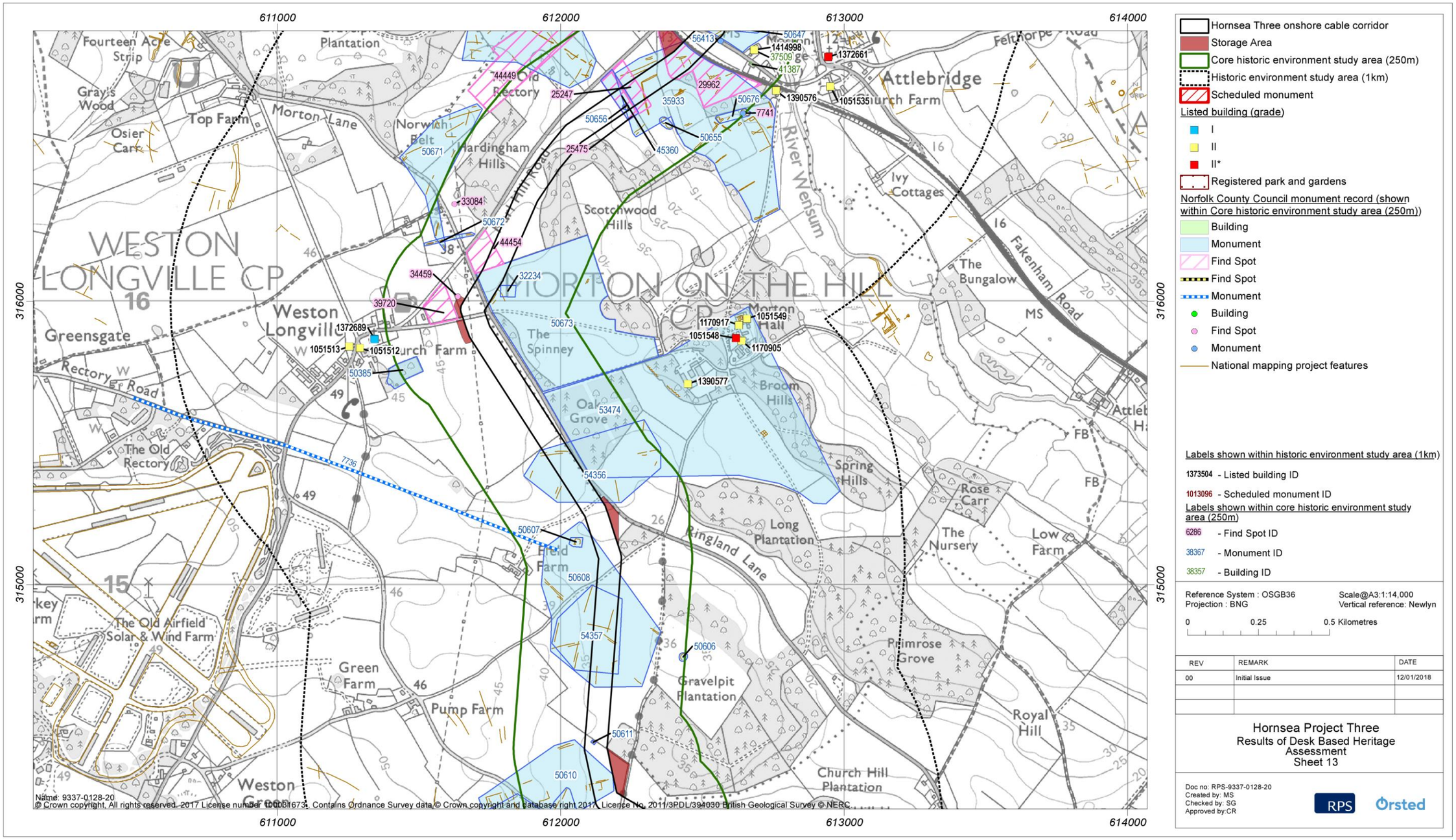


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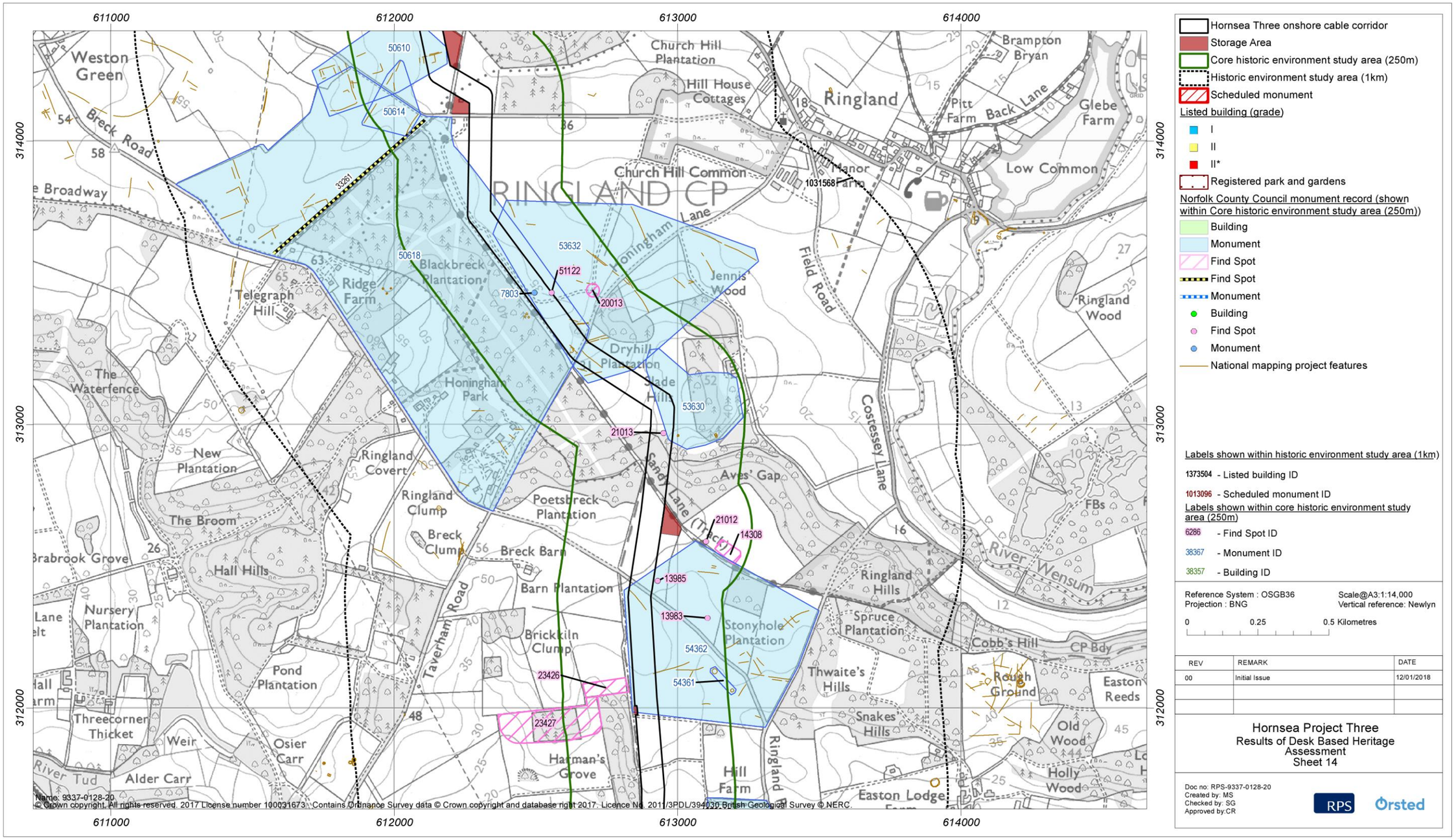


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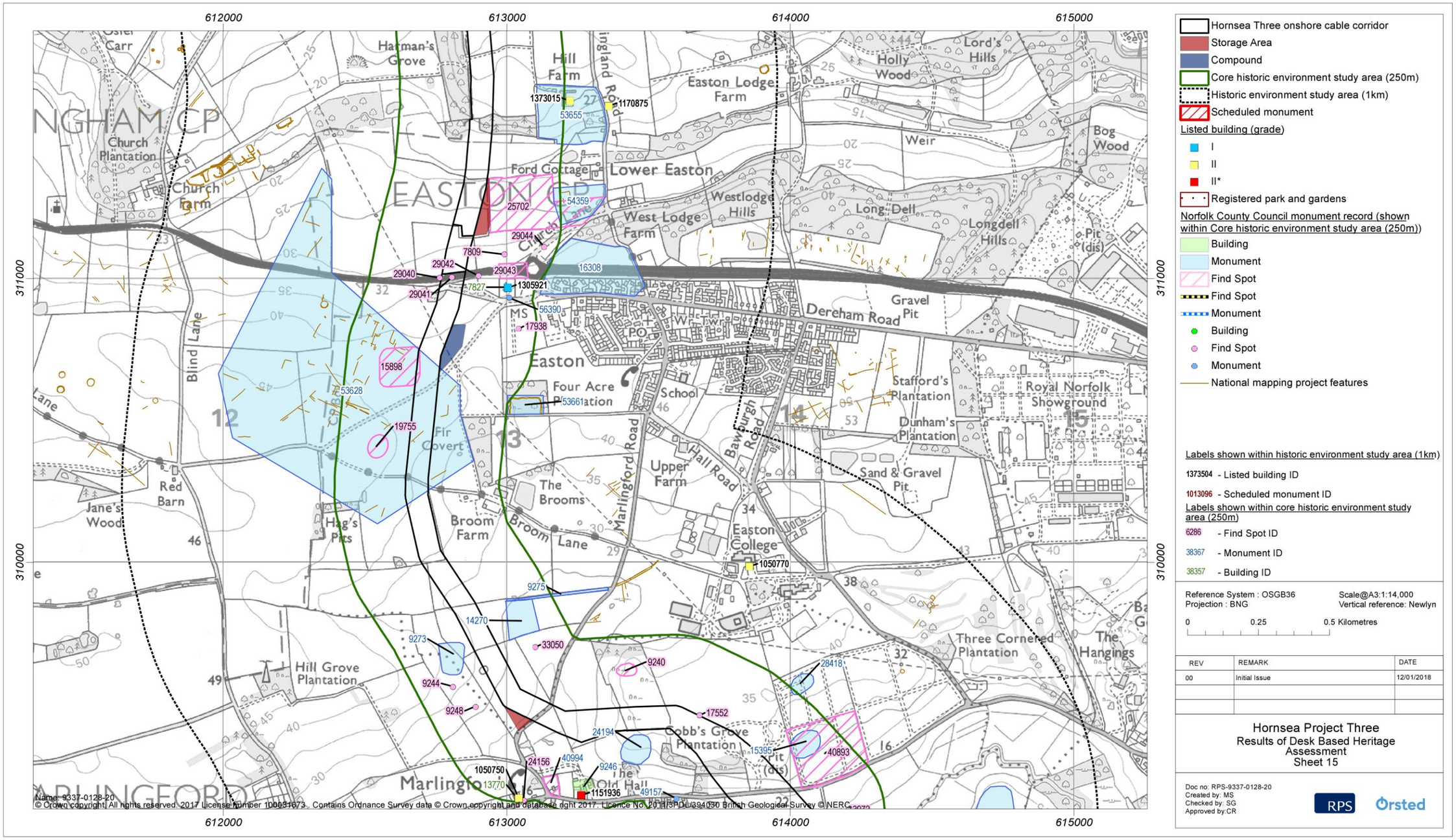


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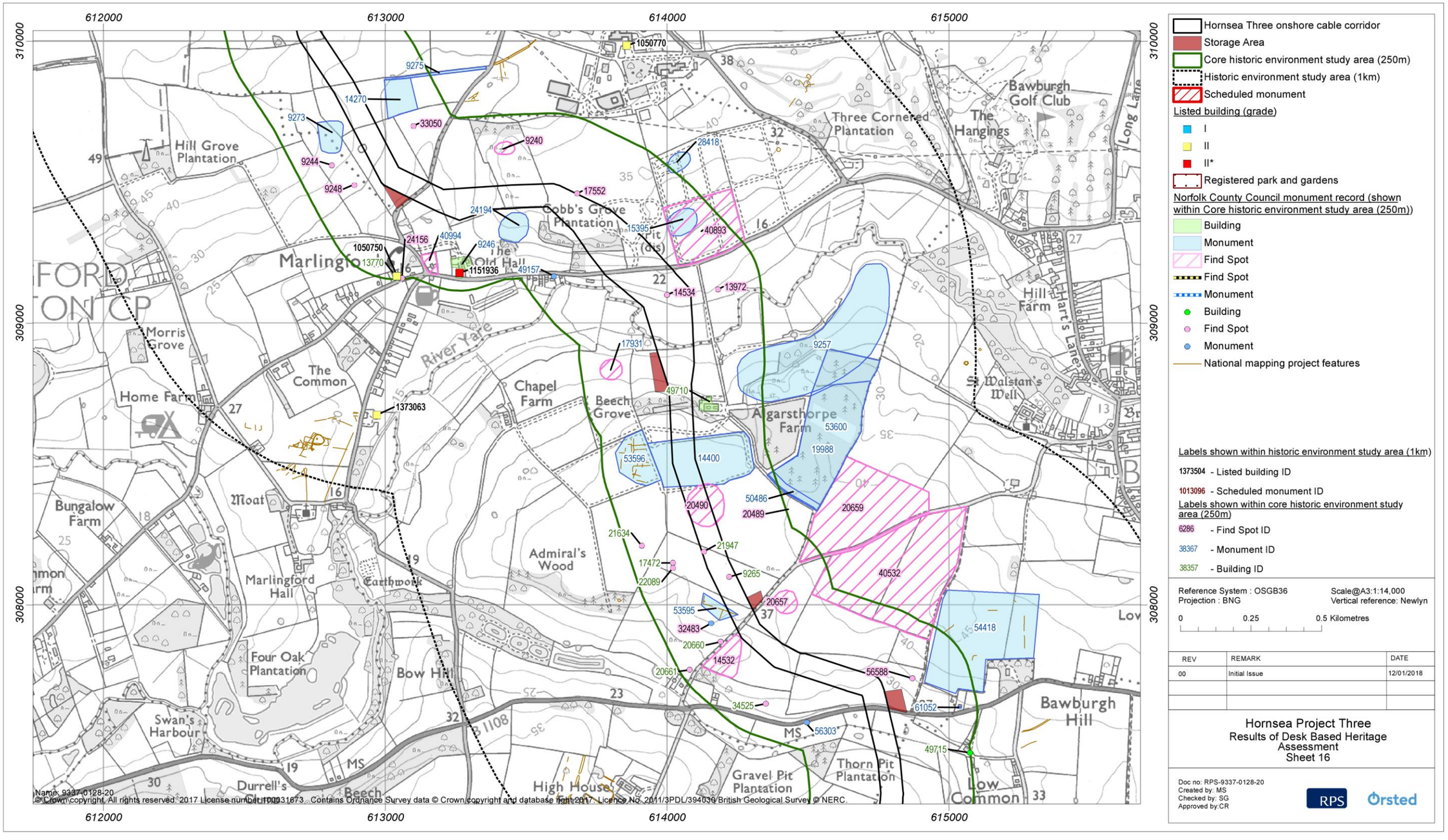


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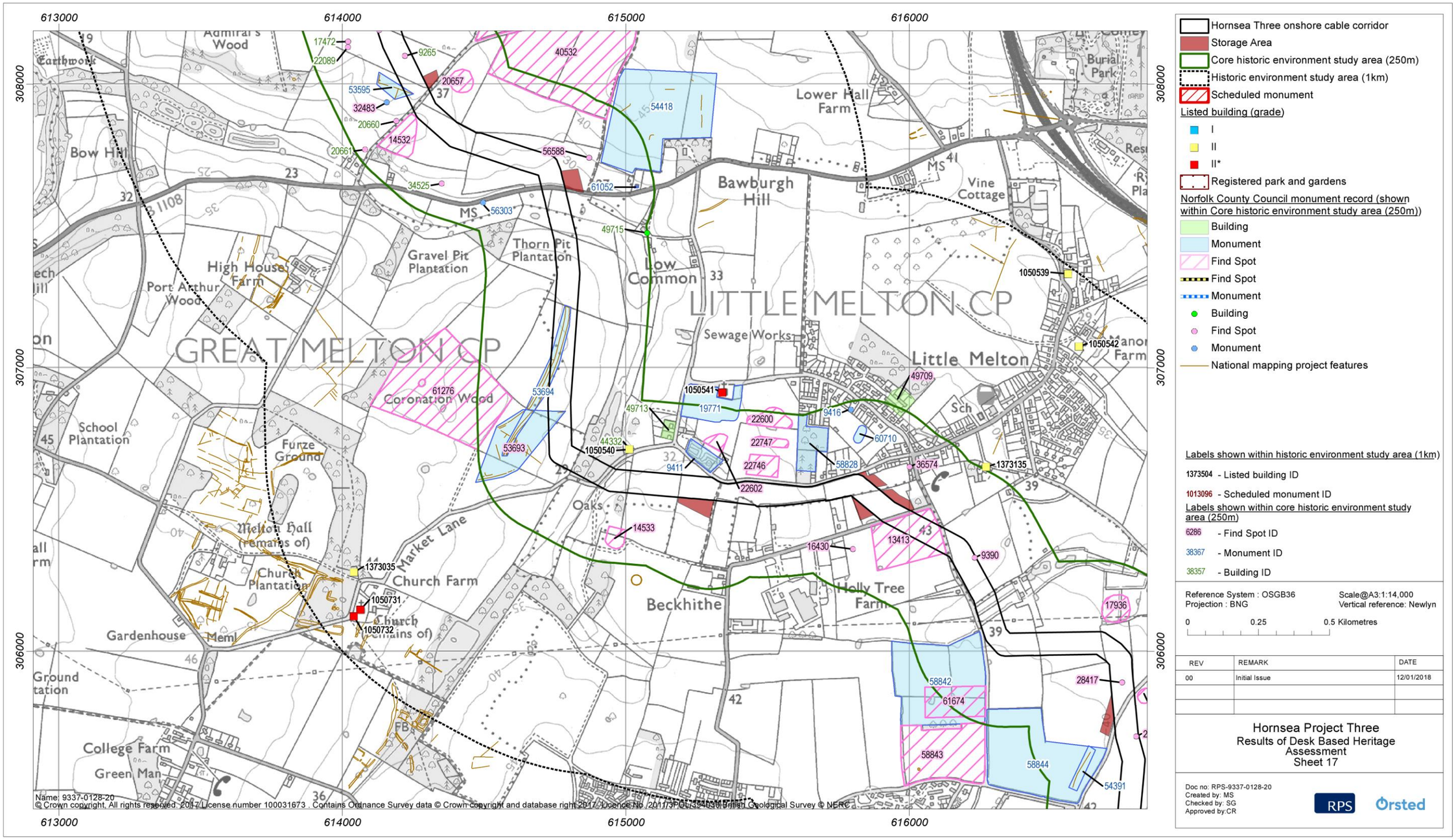


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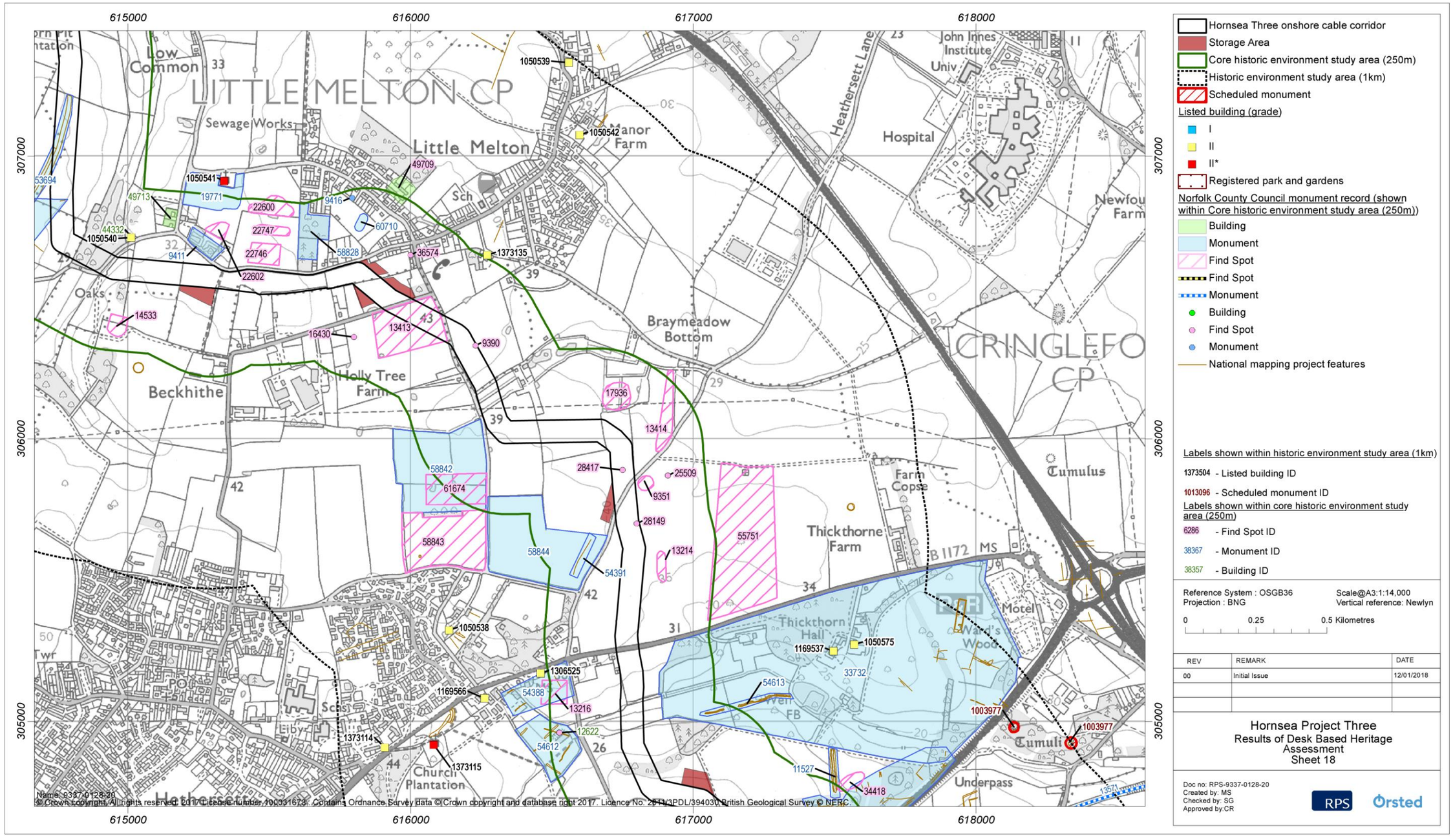


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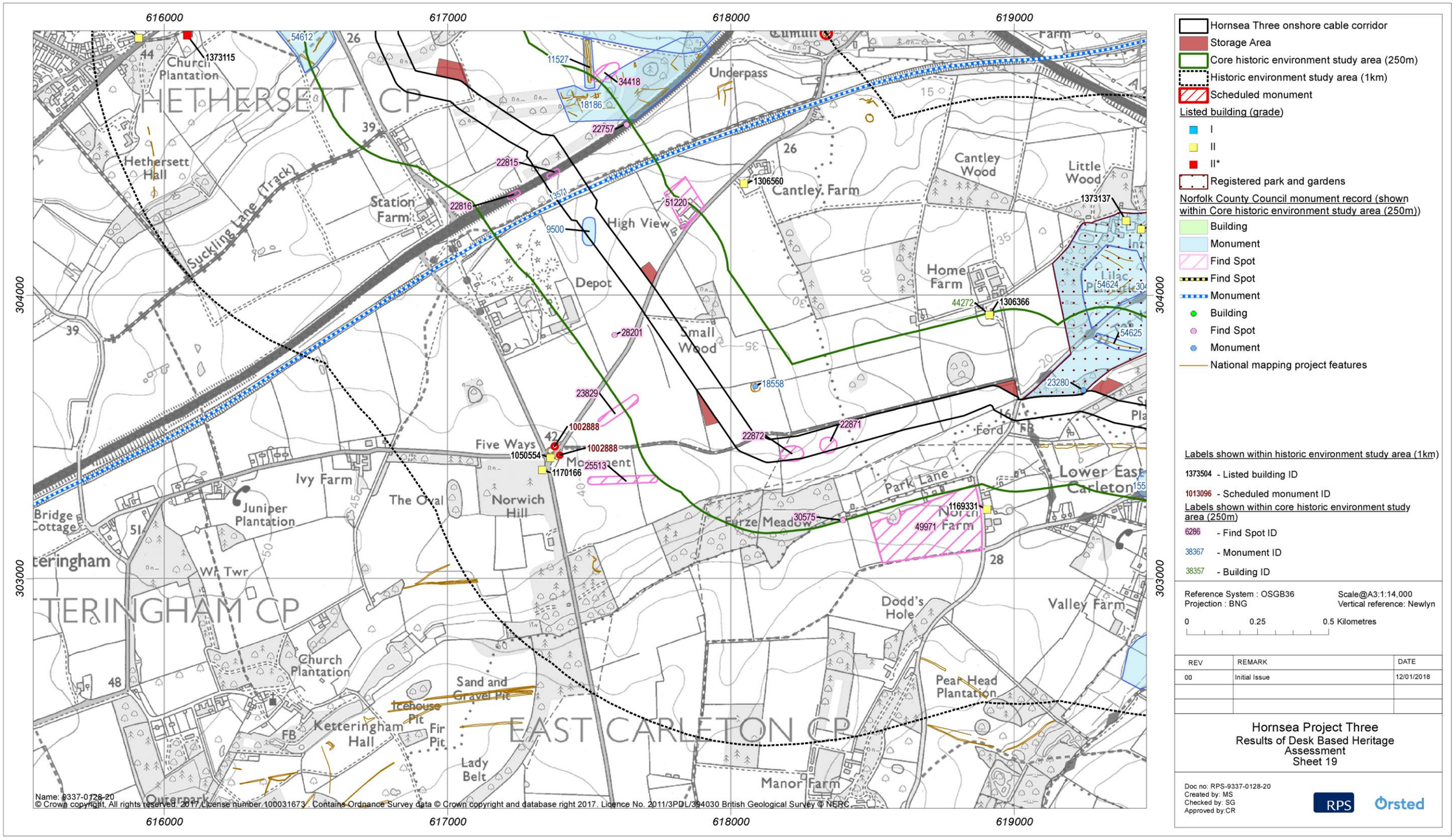


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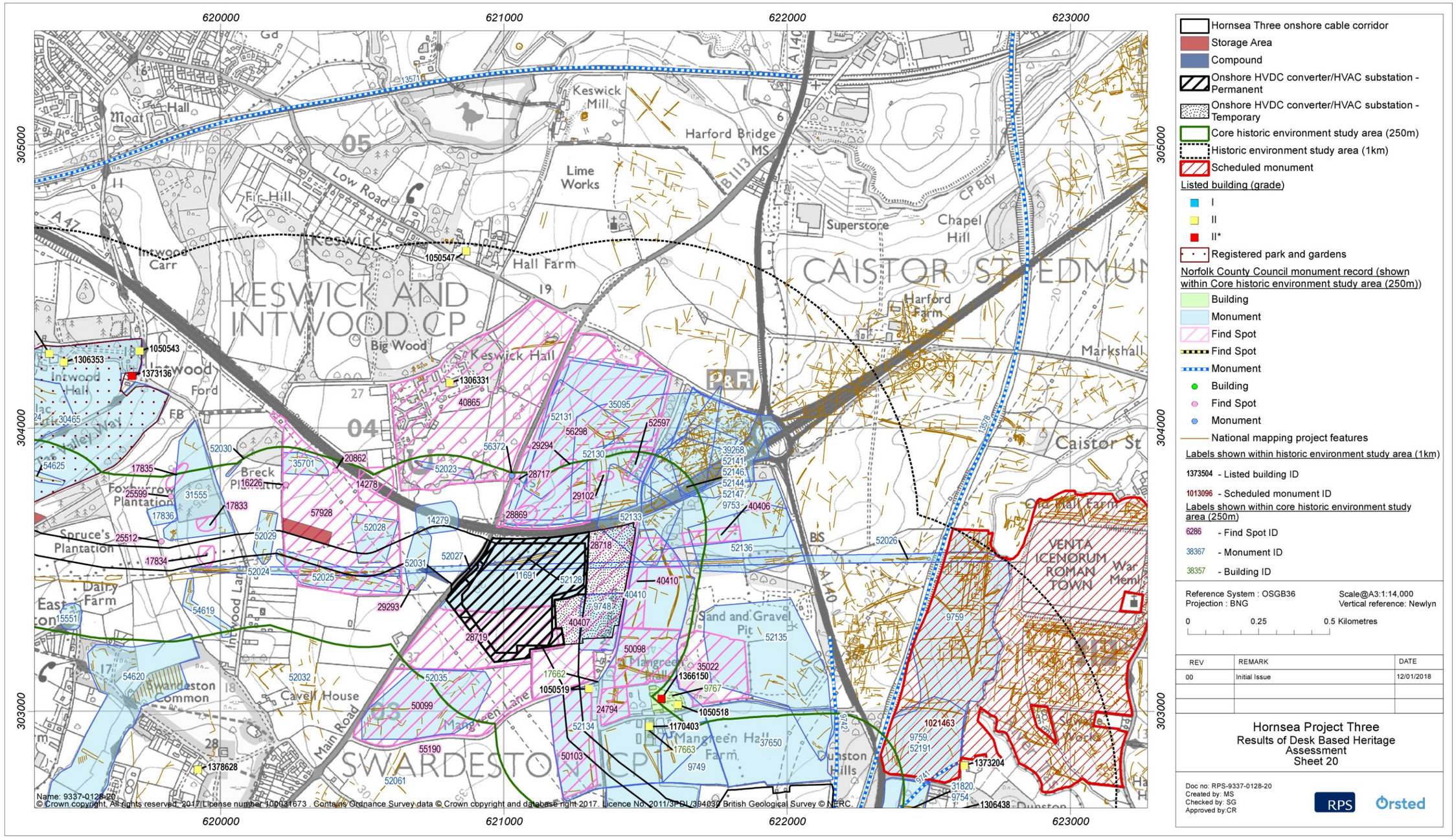


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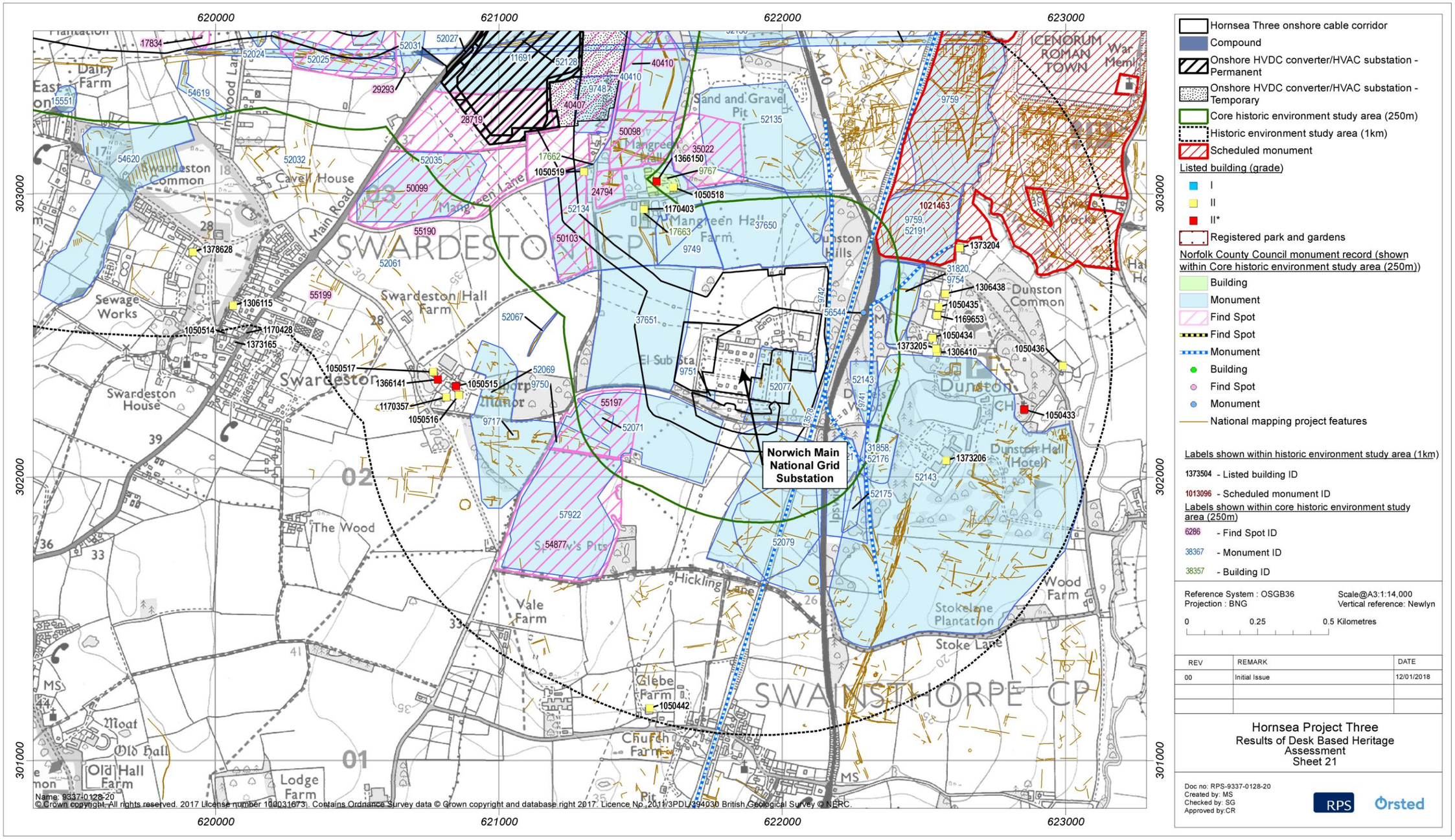


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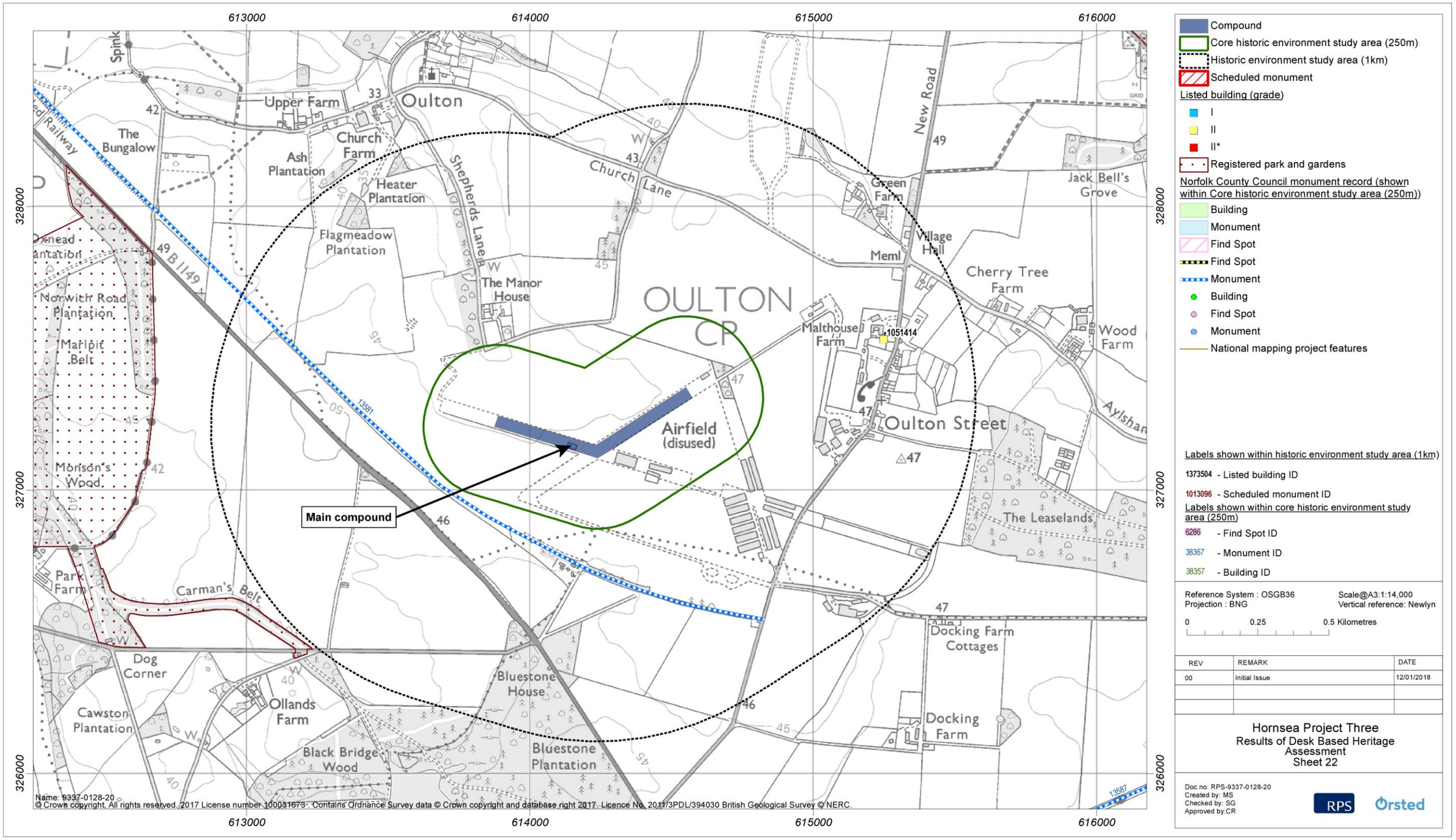


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