

Environmental Statement: Volume 6, Annex 5.2 – Fieldwalking Report

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Date: May 2018







**Environmental Impact Assessment** 

**Environmental Statement** 

Volume 6

Annex 5.2 - Fieldwalking Report

Report Number: A6.6.5.2

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Date: May 2018

This report is also downloadable from the Hornsea Project Three offshore wind farm website at <a href="https://www.hornseaproject3.co.uk">www.hornseaproject3.co.uk</a>

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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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### **Table of Contents**

1. Field 1.1 1.2 1.3	Introduction
List of	Tables
Table 1.1 Table 1.2	<b>5</b> ,
List of	Figures
Figure 1.2	1: Fieldwalking survey areas







# Glossary

Term	Definition
High Voltage Alternating Current (HVAC)	High voltage alternating current is the bulk transmission of electricity by alternating current (AC), whereby the flow of electric charge periodically reverses direction.
High Voltage Direct Current (HVDC)	High voltage direct current is the bulk transmission of electricity by direct current (DC), whereby the flow of electric charge is in one direction.

### Acronyms

Acronyms	Description
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
NHER	Norfolk Historic Environment Record
OS	Ordinance Survey
PEIR	Preliminary Environmental Information Report

### Units

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







## 1. Fieldwalking Report

#### 1.1 Introduction

1.1.1.1 As part of the baseline characterisation for the onshore archaeology assessment for Hornsea Project Three (hereafter referred to as 'Hornsea Three'), a Fieldwalking Survey was undertaken in early 2017. This annex sets out how the areas included in the Fieldwalking Survey were identified and provides the results of the Fieldwalking Survey.

#### 1.2 Method

- 1.2.1.1 The Hornsea Three onshore cable corridor passes through a landscape containing a high density of recorded remains of most periods, from early prehistory onwards. On the basis of the available documentary, cartographic and other desk-based sources, the onshore infrastructure associated with Hornsea Three is considered likely to affect a number of known sites of archaeological sensitivity, as well as run through an area where such sites are likely to occur.
- 1.2.1.2 Therefore, further investigation generally focusing on the Hornsea Three core historic environment study area, was undertaken. The core historic environment study area comprises a 250 m buffer around the onshore elements of Hornsea Three (as defined in volume 3, chapter 5: Historic Environment), plus storage areas and compounds. On this basis, a walkover survey of those areas (shown in Figure 1.1 below) was undertaken in February 2017 in order to inform the Hornsea Three onshore baseline.
- 1.2.1.3 The survey areas listed in Table 1.2 are those that fall within the area of onshore elements of Hornsea Three. A number of additional survey areas, which now fall outside the area of onshore elements of Hornsea Three, were also surveyed due to their previous inclusion within the historic area of the onshore elements of Hornsea Three at Preliminary Environmental Information Report (PEIR), these are listed in Table 1.2 for completeness. In some case the surveys were undertaken prior to the refinement of the Hornsea Three onshore cable corridor, HVAC booster station area, HVDC convertor/HVAC substation area (e.g. Sheet 6 of Figure 1.2). However, the observations and findings of the surveys are still valid and provide adequate information for the assessment. This approach has been agreed with Norfolk County Council Archaeology. The location of all survey areas are shown in Figure 1.1, with Figure 1.2 showing the survey areas in more detail.
- 1.2.1.4 Those survey areas prefixed with the letters 'WA' denote those areas where only a walkover survey was undertaken. Survey areas prefixed with the letters 'GS' denote those areas which have also been subject to geophysical survey, dependant on access, land suitability etc.
- 1.2.1.5 The locations of the heritage assets described in Table 1.1 below can be found on Figure 1.1 within volume 6, annex 5.1: Desk Based Assessment.

#### 1.3 Outputs

1.3.1.1 The outputs of the Fieldwalking Survey were used to develop a scope for follow on geophysical surveys (see annex 5.6: Onshore Geophysical Survey Report), developed in consultation with Norfolk County Council and Historic England.







Table 1.1: Fieldwalking survey areas.

Survey Area No.	National Grid Reference	Norfolk Historic Environment Record (NHER) Ref.	Parish	Walkover Area (ha)	Field Boundaries	Ground Cover	Slope	Site Name	Archaeological Potential	Notes	Sheet Number (Figure 1.2)
GS2	TG 1173 3847 to TG 1161 3813	36425 and 32947	Baconsthorpe	16.79	Hedges, some very tall.	Seedlings	Site is relatively level.	Baconsthorpe	The Hornsea Three onshore cable corridor passes between the two recorded heritage assets just west of Baconsthorpe Castle. There is potential that previously unrecorded archaeological remains continue through this area.  Complex of undated cropmarks and possible medieval building.	The Hornsea Three onshore cable corridor is well screened from nearby Scheduled Monument (Baconsthorpe Castle). No. finds/features.	Sheet 5
GS5	TG 11295 33208	38157	Barningham	2.53	Woodland to north, otherwise hedges.	Seedlings	At the base of a shallow dry valley running roughly north west to south east.	Barningham	Onshore HVAC booster station site. The onshore HVAC booster station involves permanent structures and a relatively large area of high impact.	The site is located in a large arable field immediately south of the woodland at Barningham Green Plantation. The Tithe map marks the plantation and area to the north as 'The Heath'. The field in which the onshore HVAC booster station area is located is shown as three fields. Most of Barningham Green Plantation, except the area immediately north of the onshore HVAC booster station area is shown on a 1st Edition Ordinance Survey (OS). Most of the woodland not shown on 1946 aerial photographs, so presumably felled and replanted. A fragment of a medieval buckle was found in this area by metal detecting in 2002.	Sheet 6
GS6	TG 1102 3268 to TG 1069 3107	32737, 33443, 32150, 33386, 32872, 31877	Corpusty	17.07	Hedges	Grass in the narrow field containing the stream. Otherwise arable – ploughed and seedlings.	Mostly to the south.	Corpusty	Potential for significant buried archaeological deposits. Multi-period finds from metal detecting.	Metal detecting within these fields has produced significant quantities of Roman and early Anglo-Saxon artefacts indicating a high potential for associated buried archaeological remains. Faint (unrecorded) rectilinear cropmarks are visible on Google Earth within field containing NHER 32872.  Numerous relatively small land divisions are seen on the Tithe map. Mostly arable by the time of the 1946 aerial photos, with a similar disposition in 1998. There has been much field boundary removal. No finds or features.	Sheet 7
GS7	TG 10676 30902	6676, 32962, 37256	Saxthorpe	12.73	Hedges	Arable – ploughed/seedlings.	To the south west, towards the River Bure	Saxthorpe	Significant quantities of medieval finds suggest medieval settlement activity at this location with potential for surviving buried archaeological deposits.	The site is mostly arable by the time of the 1946, as seen on aerial photos, with a similar disposition in 1998. There has been much field boundary removal. No finds or features.	Sheet 8







Survey Area No.	National Grid Reference	Norfolk Historic Environment Record (NHER) Ref.	Parish	Walkover Area (ha)	Field Boundaries	Ground Cover	Slope	Site Name	Archaeological Potential	Notes	Sheet Number (Figure 1.2)
GS10	TG 1234 2254 to TG 1236 2222	7472, 50194, 2796	Booton	2.93	Hedgerows	Arable – ploughed to the south of road and seedlings to the north of road.	Level	Booton Church	St. Michael and All Angels' Church, medieval coin finds and Roman road. There is a high potential for significant buried archaeological deposits generally and a high potential for significant buried archaeological deposits relating to Anglo-Saxon to medieval settlement.	The Hornsea Three onshore cable corridor passes adjacent to the church (Victorian rebuild on medieval site), through a field from which medieval to post-medieval artefacts have been recovered, as well as crossing the line of the Roman road.  At the site, Church of St Michael and All Angels is listed at Grade II* (list entry number 1342776) and five further Grade II listed buildings are in the vicinity.  Tithe map of 1839 shows the church in its churchyard, which is as the current disposition. Church Farm to the east is shown but no other buildings are marked and the rectory is absent, first appearing on the 1st Edition OS in a small parkland like parcel. Aerial photographs of 1946 show the wider area as arable.	Sheet 10
GS11	TG 1213 1873 to TG 1235 1841	34149, 53472	Alderford	3.05	n/a	n/a	n/a	Alderford	The site includes cropmarks of ditches of possible Iron Age to Roman date and finds including tesserae. There is a high potential for significant buried archaeological deposits.	No access.	Sheet 11
GS12	TG 1269 1732 to TG 1246 1692	50649	Attlebridge/Morton on the Hill	21.47	Hedgerows/post and wire fencing.	Mostly grass, although a large field between The Street road and the River Wensum has in the past been arable, according to aerial photographs.	Level	Attlebridge	High potential for further previously unidentified heritage assets on both sides of the River Wensum.  Cropmarks of Bronze Age round barrow cemetery.	The Hornsea Three onshore cable corridor passes through barrow cemetery.  The Tithe map shows area as several fields, possibly representing ridge and furrow. Field boundary removal had taken place by the 1st Edition OS.  No finds of features – no sign of earthworks.	Sheet 12
GS13	TG 1249 1346	7803	Ringland	2.26	Pig pens to north and east. Woodland to the west. Hedgerow and road to the south.	Grass	Slopes to the east	Ringland	Immediately adjacent to the Hornsea Three onshore cable corridor. There is a high potential for significant buried archaeological deposits, including secondary burials. Site of probable Bronze Age barrow.	Tithe map shows site in a long narrow field orientated north west to south east, with woodland to the south west. This is shown as heathland on the 1st Edition OS.  No finds or features.	Sheet 13
GS14	TG 1284 1094 to TG 1291 1081	7827	Easton	0.9	Hedgerows, woodland, containing remains of old road, divides area from A47 road.	Young Brassica Crop.	Gentle slope to north.	Easton compound	There is a high potential for significant buried archaeological deposits relating to Anglo-Saxon to medieval settlement.	The Hornsea Three onshore cable corridor passes adjacent to the medieval church.  Tithe map shows Easton church on the north side of the Turnpike Road, with a small triangular area of woodland to the south.  Current disposition of churchyard is as shown on the Tithe map, as is the field surrounding.  No finds or features.	Sheet 14







Survey Area No.	National Grid Reference	Norfolk Historic Environment Record (NHER) Ref.	Parish	Walkover Area (ha)	Field Boundaries	Ground Cover	Slope	Site Name	Archaeological Potential	Notes	Sheet Number (Figure 1.2)
GS15	TG 12762 10590	15898, 19755, 20010-1	Broom Farm	3.08	Hedgerows	Arable – seedlings.	Slight slope to the north.	Broom Farm	There is a high potential for significant buried archaeological deposits.	The cropmarks of an area of enclosures and fields of probable Roman date are visible on aerial photographs to the west of Easton village. The site consists of a main concentration of enclosures and ditches, surrounded by more fragmentary and dispersed boundaries. The vast majority of the boundaries appear to broadly follow a dominant alignment, although it is possible that the site represents domestic and agricultural enclosures and fields of more than one phase. Finds of a Prehistoric and Roman date have been found within the general vicinity (NHER 15898, 19755, 20010-1). Given the morphology of the cropmarks a Roman date for the site seems the most plausible.  The Tithe map shows Fouracre Plantation to the east, still there, as is fir Covert to the south, first shown on the 1st Edition OS. No finds/features.	Sheet 15
GS16	TG 1520 0692 to TG 1546 0660	9421, 19771, 22602, 9411, 22746	Little Melton	4.17	Hedgerows	Arable – seedlings.	Level	Little Melton	All Saints' Church, medieval moat and medieval finds  The site has a high potential for significant buried archaeological deposits relating to Anglo-Saxon to medieval settlement.	The Hornsea Three onshore cable corridor passes between the medieval church and a moated site.  Little Melton enclosure map shows the area with the church to the north and moat to the south west. The area is divided into several fields. The first edition OS shows more detail of the moated site, with a U-shaped moat and a further water filled feature to the south east.	Sheet 16
GS17	TG 1808 0368	18558	Ketteringham	1.71	Hedgerows – plantation woodland to the east.	Arable – young brassica crop.	Relatively level.	Ketteringham	There is a cropmark of Bronze Age ring ditch. The site has a high potential for significant buried archaeological deposits, including secondary burials.	Bronze Age ring ditch recorded on NHER.  The Tithe map shows single large field. The 1st Edition OS shows a triangulation station in the field, which may be visible on aerial photographs of 1946.  Overhead Cables on the eastern edge of the field.  No finds or features.	Sheet 18







Survey Area No.	National Grid Reference	Norfolk Historic Environment Record (NHER) Ref.	Parish	Walkover Area (ha)	Field Boundaries	Ground Cover	Slope	Site Name	Archaeological Potential	Notes	Sheet Number (Figure 1.2)
GS18	TG 21077 03484	11691, 52128	Swardeston	9.98	Hedgerows	Arable – seedlings.	Slopes gently to the north west.	Mangreen South.	The onshore HVDC convertor/HVAC substation involves permanent structures and relatively large area of high impact.	NHER records cropmarks of an undated rectangular enclosure (NHER number 11691). In addition, earthworks of post medieval field boundaries are recorded within the grounds of Keswick Hall (NHER number 52128).  The Tithe map shows two fields to the south of Keswick Hall, as does the 1st Edition OS. There are also areas apparently not part of the parkland of either Keswick Hall or Mangreen Hall. Field amalgamated after construction of A47 Norwich South Bypass after 1988.	Sheet 19
GS19	TG 2121 0306 to TG 2169 0270	52134	Swardeston	11.3	Hedgerows	Arable – seedlings.	Level	Mangreen Hall.	Earthworks of medieval to post medieval enclosures and boundaries surrounding Mangreen Hall.  There is a high potential for significant buried archaeological deposits relating to Anglo-Saxon to medieval settlement.	The Hornsea Three onshore cable corridor passes through area of recorded cropmark and earthwork evidence.  The Tithe map shows area comprises fields immediately south, and slightly further west of Mangreen Hall. Apparently not part of the parkland then or on the 1st Edition OS.  No finds or features.	Sheet 21
GS20	TG 21879 01965	n/a	Swardeston	10.14	Mostly hedgerows, but to the north there is also a track with and a railway bridge to the east.	Arable – seedlings.	Slopes from the north into dry valley running east- west in centre.	Swainsthorpe	The onshore HVDC convertor/HVAC substation involves permanent structures and relatively large area of high impact	The 1st Edition OS marks 'Site of Humble Yard' as an antiquity some 270 m to the west and 'Site of St James Chapel' further west.  Immediately south of Norwich Main substation.  No finds or features.	Sheet 22
GS21	TG 093 423	NHER 34655	Kelling	1.91	Hedgerows with deciduous woodland to the east and south. Houses abut the field to the north and west.	Arable	The site slopes east to west.	Kelling	Possible Early Anglo-Saxon burial due to finds of two brooches - although they are sometimes found at settlement sites, multiple brooch finds usually equate to burials. 78 Roman coins, a Roman spoon and numerous Mid to Late Anglo-Saxon, medieval and post-medieval artefacts and coins have also been recorded by metal detecting.	n/a	Sheet 1
GS22	TG 100 277	NHER 53841 and 35531	Wood Dalling	8.11	Hedgerows	Arable	The site undulates but is fairly level overall.	Wood Dalling	Cropmarks of enclosures, likely to relate to medieval settlement, and a medieval to post-medieval road Google Earth images show the cropmarks and corresponding dark soil marks likely to indicate focus of past human activity.	There are former field boundaries visible on historic mapping from 1885 to 1978, a cropmark previously recorded from aerial photography (NHER 35531), and with a former pond, visible on mapping from 1885 to 1984.	Sheet 9
GS23	TG 152 066	NHER 9411	Little Melton	2.33	Hedgerows	Arable	Level	Little Melton Church Farm	The route passes immediately to the south of the medieval moats (NHER 9411).	n/a	Sheet 17







Survey Area No.	National Grid Reference	Norfolk Historic Environment Record (NHER) Ref.	Parish	Walkover Area (ha)	Field Boundaries	Ground Cover	Slope	Site Name	Archaeological Potential	Notes	Sheet Number (Figure 1.2)
GS24	TG 111 400	NHER 30316 & 27983	Bodham	2.16	Hedgerows with coniferous woodland to the north. There is no boundary in the south east of the field abutting the road.	Arable	Level	Edgefield	Cropmarks of a ring ditch and linear features (possible enclosures). Google Earth imagery from 2006 shows additional cropmark features that extend the site to the north of the area mapped by the National Mapping Programme.	n/a	Sheet 2
GS25	TG 115 396	18191	Bodham	3.73	Stretches of hedgerows, fencing, and no boundary.	Brassica crop.	Gentle slope from north to south.	Bodham 2	Cropmarks of an enclosure, interpreted as an Iron Age enclosure or possible Roman signal station. Although the enclosure itself lies just outside of the corridor, Google Earth shows that other cropmarks extend north to the A148 road.	A former field boundary is visible on historic mapping from 1886 to 1958, in the north west of the site.	Sheet 3
GS26	TG 117 393	32229	Bodham	1.25	Hedgerows	Arable	Slight slope form south to north.	Bodham 3	Cropmark of a Bronze Age ring ditch lies within, or immediately adjacent to, the corridor. Potential for further rings ditches or other features.	n/a	Sheet 4
WA1	TG 21246 02954	52134	Swardeston	11.3	Hedgerows	Arable – seedlings.	Level	Wattle Cottage	See GS19.	Forms part of Mangreen Hall area (GS19) and notes above apply.	Sheet 22







Table 1.2: Fieldwalking survey areas located within the historic PEIR onshore cable corridor, but outside the current Hornsea Three onshore cable corridor.

Survey Area No.	National Grid Reference	Norfolk Historic Environment Record Ref.	Parish	Walkover Area (ha)	Field Boundaries	Ground Cover	Slope	Site Name/Descri ption	Archaeological Potential	Notes
GS1	TG 1159 4322 to TG 1178 4302	38342 and 38341	Weybourne	13.63	Hedges	Seedlings	Gentle to north.	Weybourne	Possible Roman enclosure and field system and Bronze Age ring ditch cropmarks. This area has high potential for significant buried archaeological deposits.	The Tithe map of 1839 and 1st Edition OS shows the site as four fields (now one) the latter showing a pit in the northwestern field. Area marked as 'smallholdings' on the OS Provisional Edition of the early post-war period.
GS3	TG 09574 37806	No recorded NHER data in vicinity.	Hempsted	2.51	n/a	n/a	n/a	Hempsted	Onshore HVAC booster station area candidate site. The Booster Station includes permanent structures and a relatively large area of high impact.	No Access.  The Tithe map of 1839 shows two fields with onshore HVAC booster station area in the northern one. Plantation woodland to the west is shown on the Tithe map, as is the road to the north.
GS4	TG 10093 35488	No recorded NHER data in vicinity.	Edgefield	2.5	Woodland to the north. Hedges, some with mature trees around remainder of field.	Seedlings/rough grass/bare earth. Part of site being used for woodland management, with large logs and a cabin in the north.	Slight slope in to shallow dry valley to east.	Edgefield	Onshore HVAC booster station candidate site. The onshore HVAC booster station involves permanent structures and a relatively large area of high impact.	No finds/features. No trace of boundaries within field shown on OS. Road pattern and woodland to west, is as shown on the Tithe map. The wood to north has encroached further south subsequently. Current large field was three on the Tithe map.
GS8	TG 1128 2555	56166	Salle	3.17	Hedges	Young Brassica Crop. The field containing the stream to the north is under grass.	Level	Salle	Ring ditch cropmarks located directly in the vicinity of the route. Potential for significant buried archaeological deposits, including secondary burials.	The Tithe map of 1840 shows two fields.  No finds/features.
GS9	TG 1120 2490	7466 and 29291	Salle Church	3.62	Hedges/churchyard wall.	Arable – the site was partly covered in plastic over a brassica crop.	Relatively level.	Salle Church	Saint Peter and Pauls Church and multiperiod finds are present at this site.  There is a high potential for significant buried archaeological deposits relating to Anglo-Saxon to medieval settlement.	The Hornsea Three onshore cable corridor passes adjacent to the medieval church through a field from which Roman, Anglo-Saxon and medieval artefacts have been recovered.  Church of Saints Peter and Paul, Salle is listed at Grade I (list entry number 1306145)  Salle Memorial Hall is listed at Grade II (list entry number 1423849)  Salle Park – Registered Park and Garden – Grade II listed (list entry number 1001016)  The Tithe map of 1840 shows a similar disposition to the current, including the boundary of the churchyard. No finds/features.
WA2	TG 1064 4166	6246	Kelling	2.88	n/a	Caravan Park/heathland.	Towards railway in north.	Kelling Heath	Kelling Heath Mesolithic flint-working site. The site is now part of a caravan park.	Well known Mesolithic flint-working site excavated between 1924 and 1926. Large numbers of Mesolithic worked flints and waste from flint-working were recovered from in situ deposits. Some of the flints are now thought to date to the Upper Palaeolithic.  Access uncertain – viewed from Public Right of Way only. Heathland on the Tithe map of 1839.  Ground cover precludes finds.







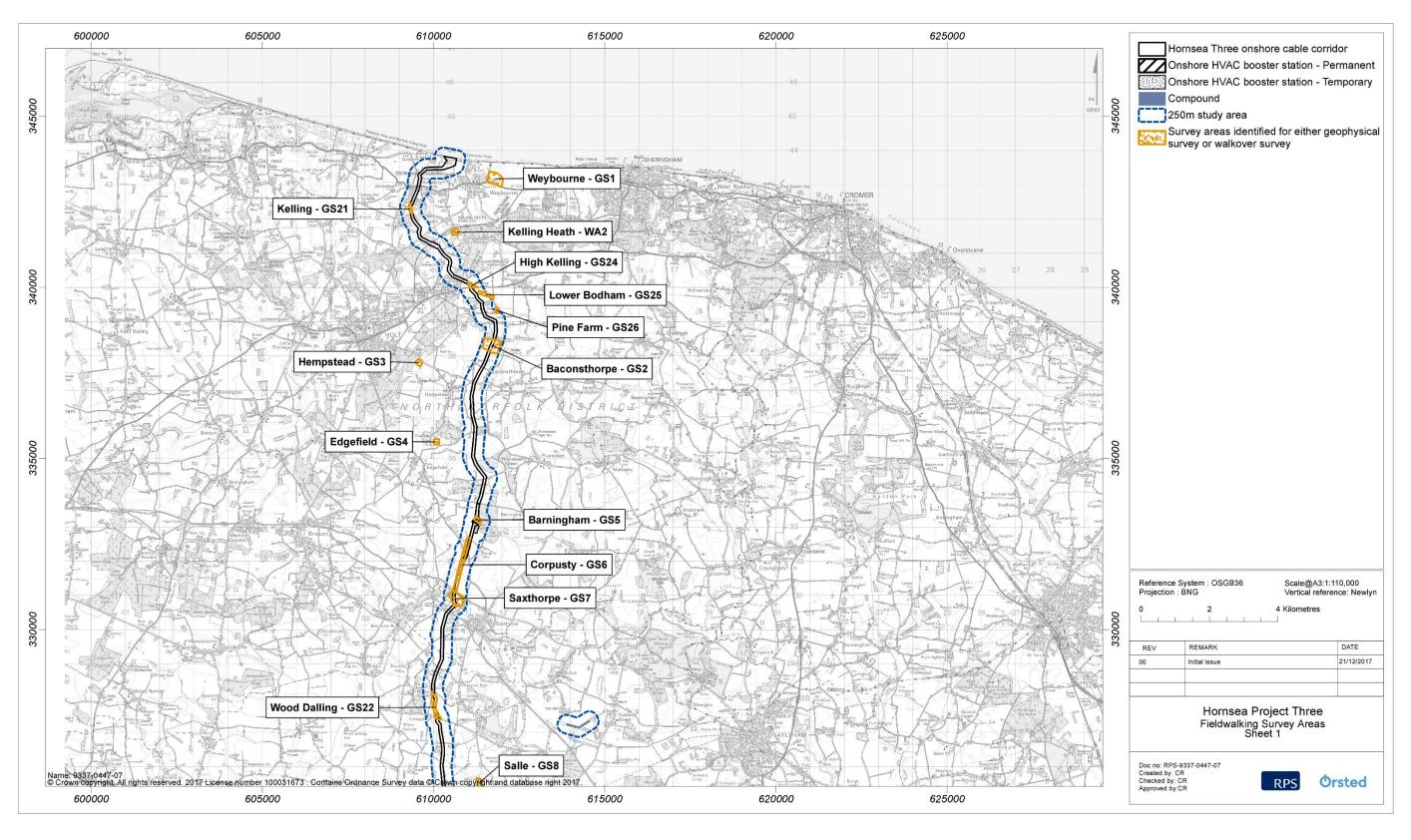


Figure 1.1: Fieldwalking survey areas.







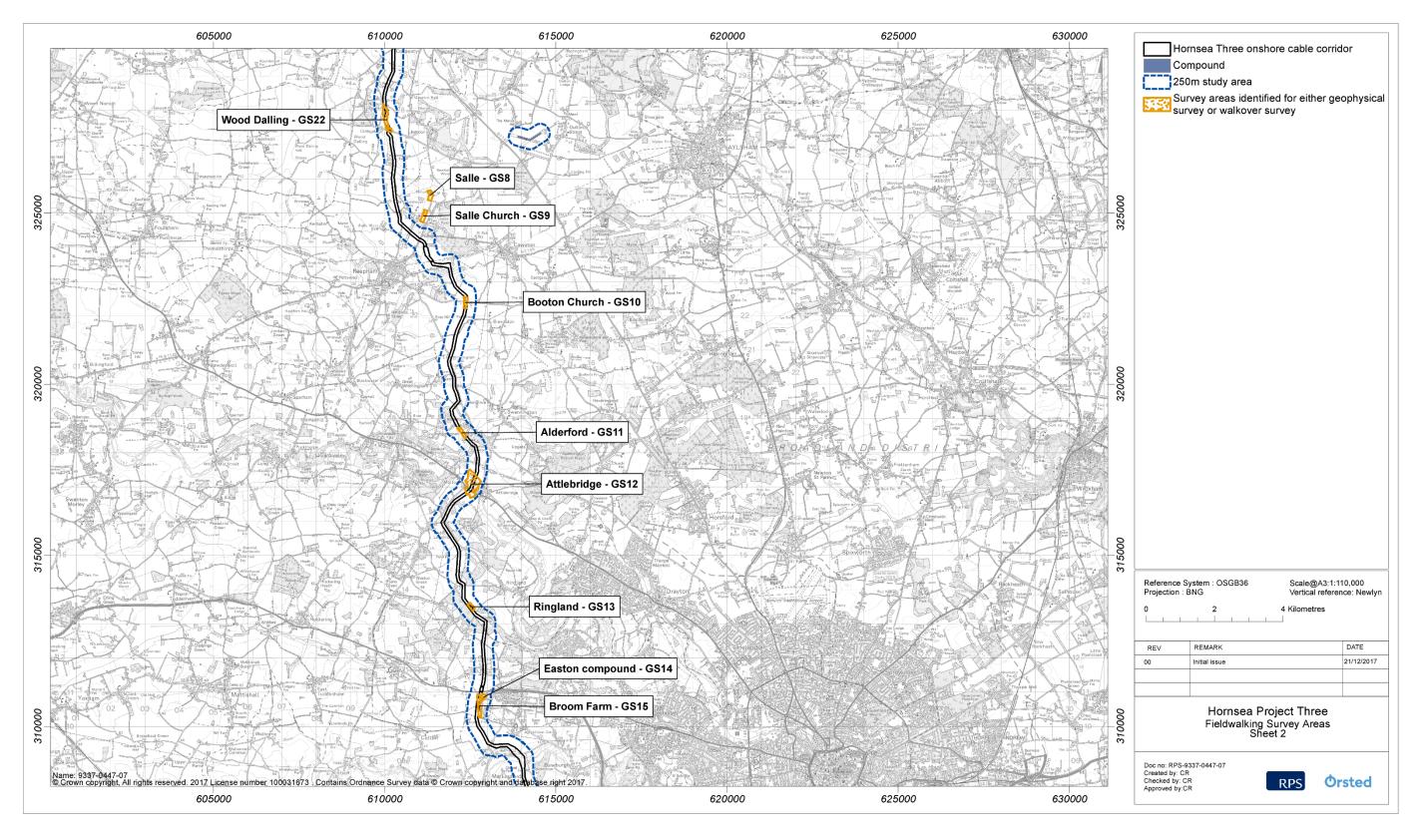


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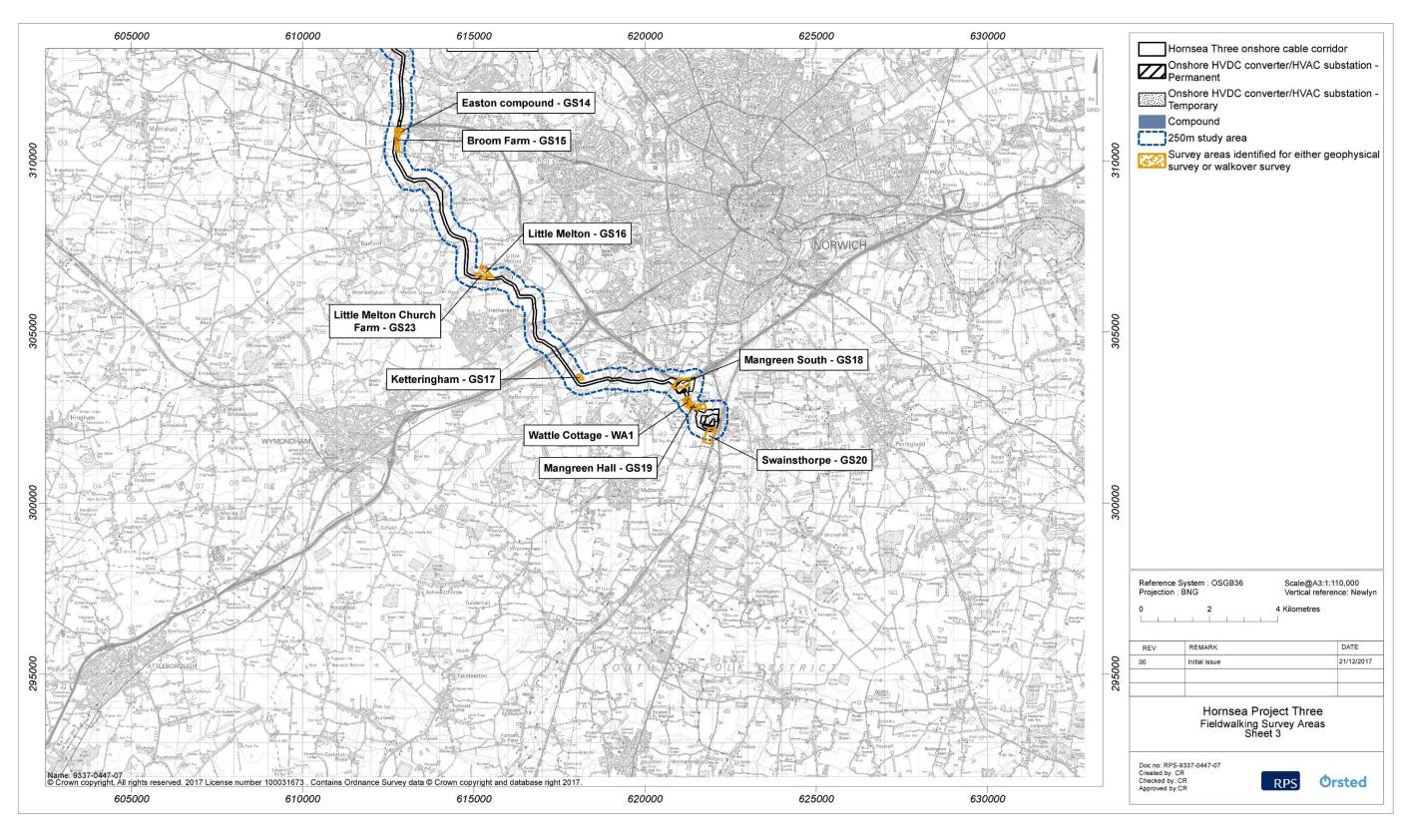


Figure 1.1: Fieldwalking survey areas.









Figure 1.2: Detailed Fieldwalking survey areas.







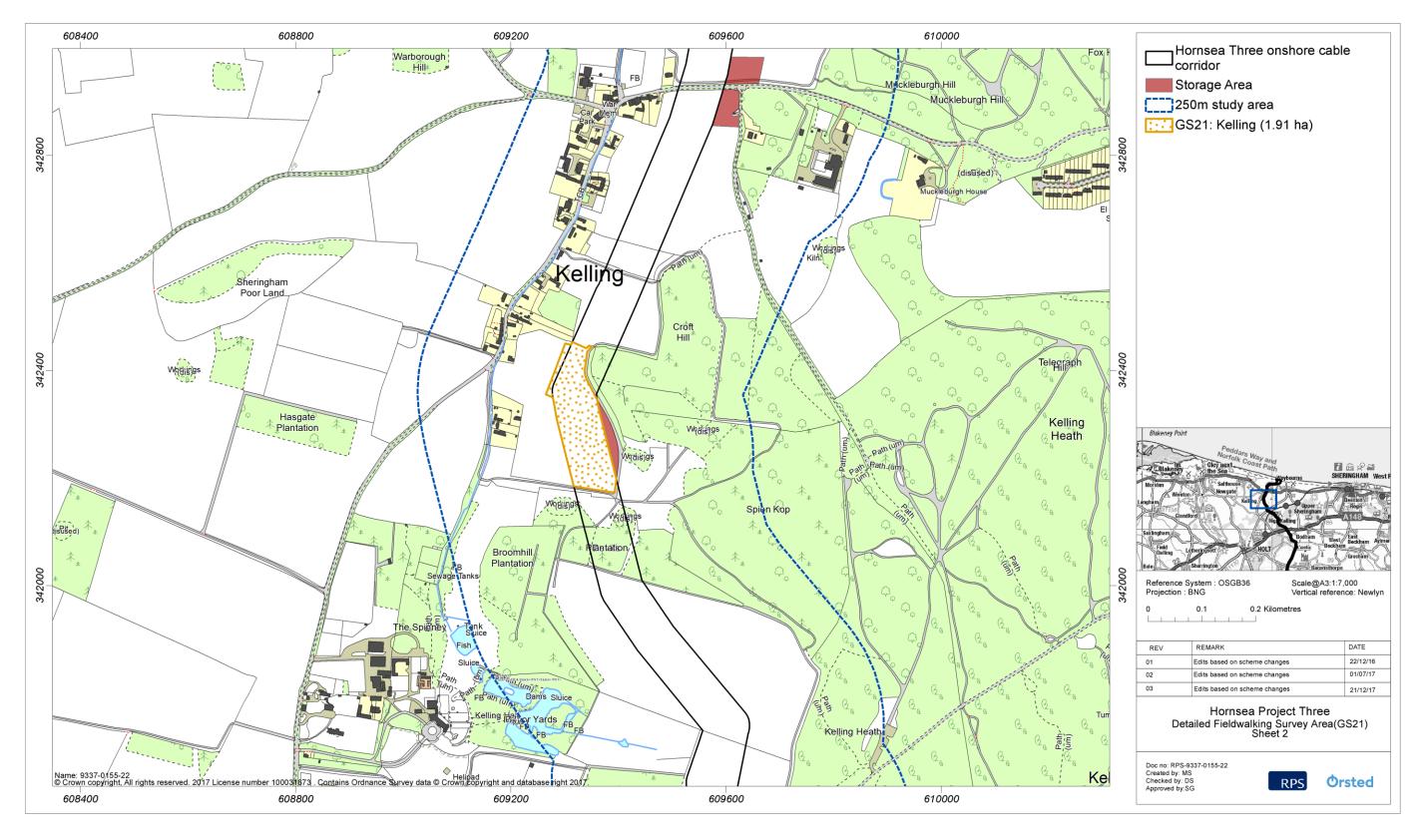


Figure 1.2: Detailed Fieldwalking survey areas.









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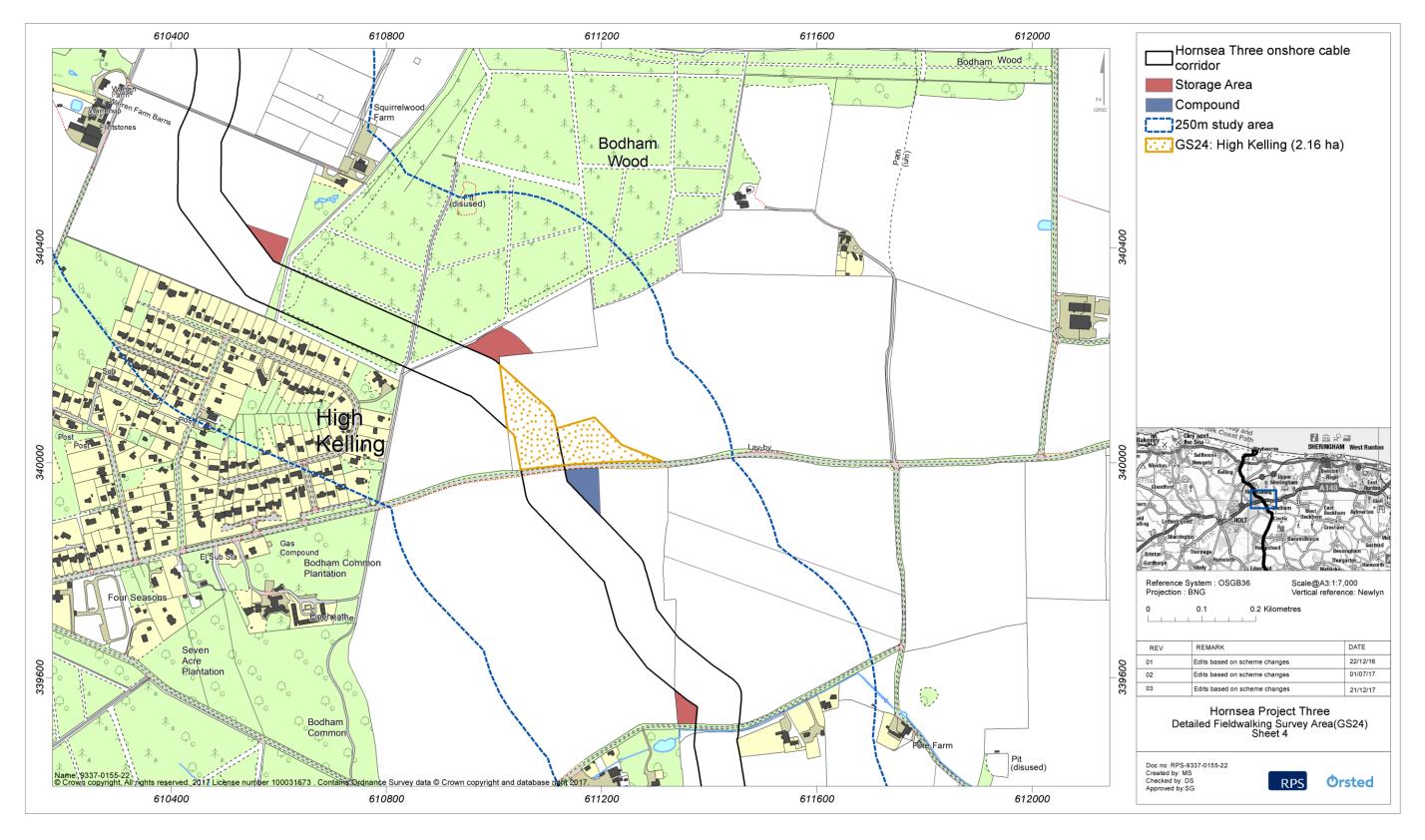


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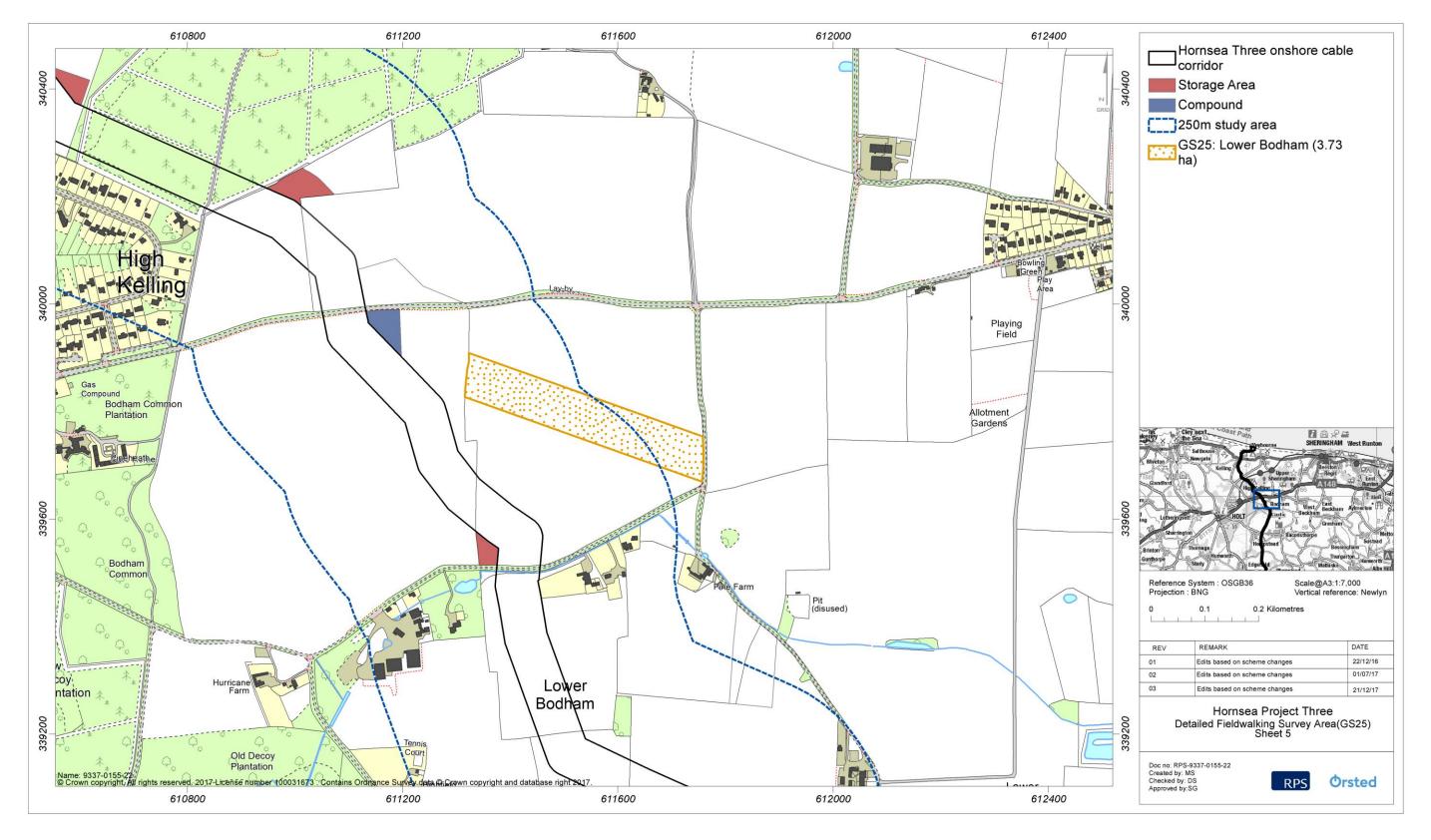


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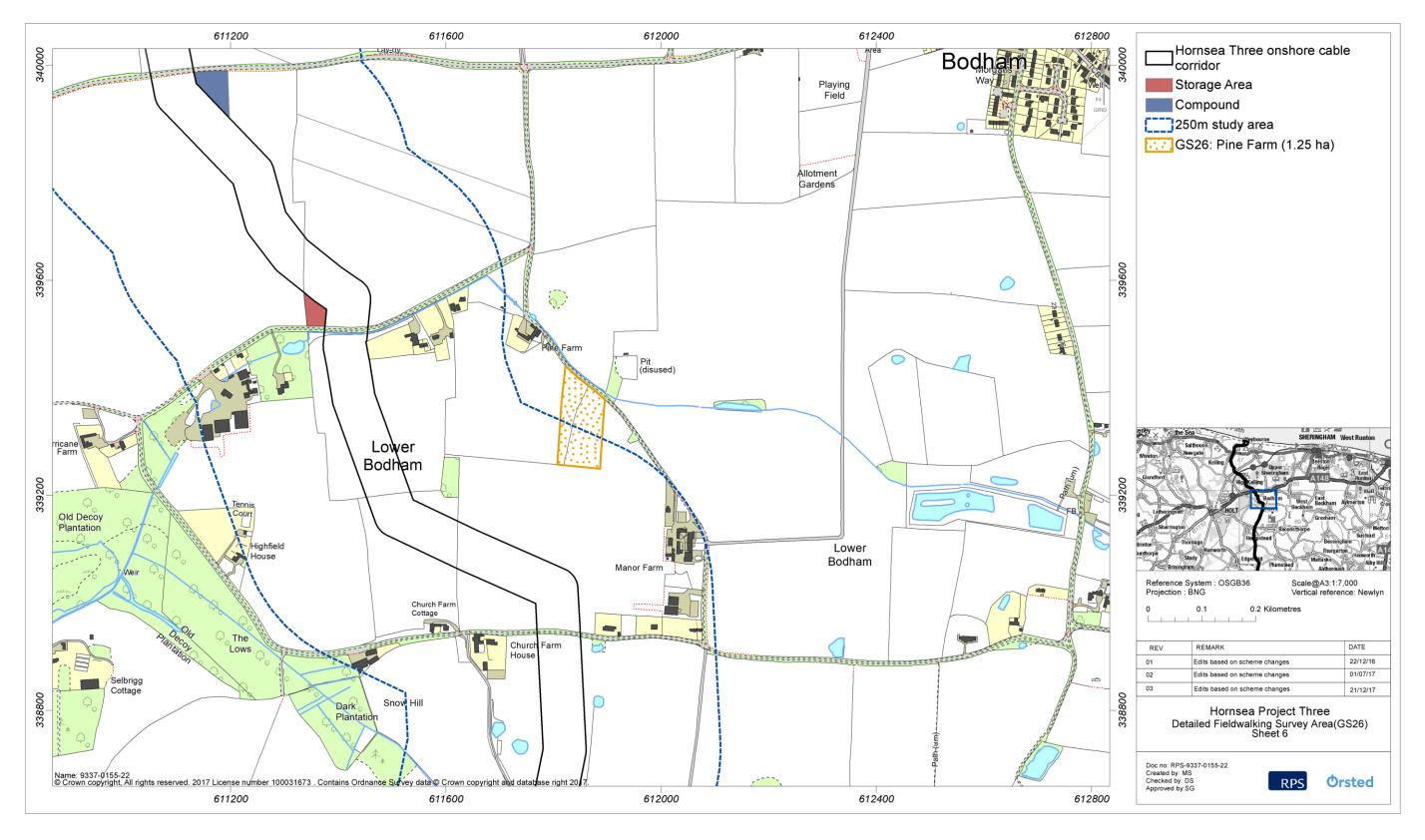


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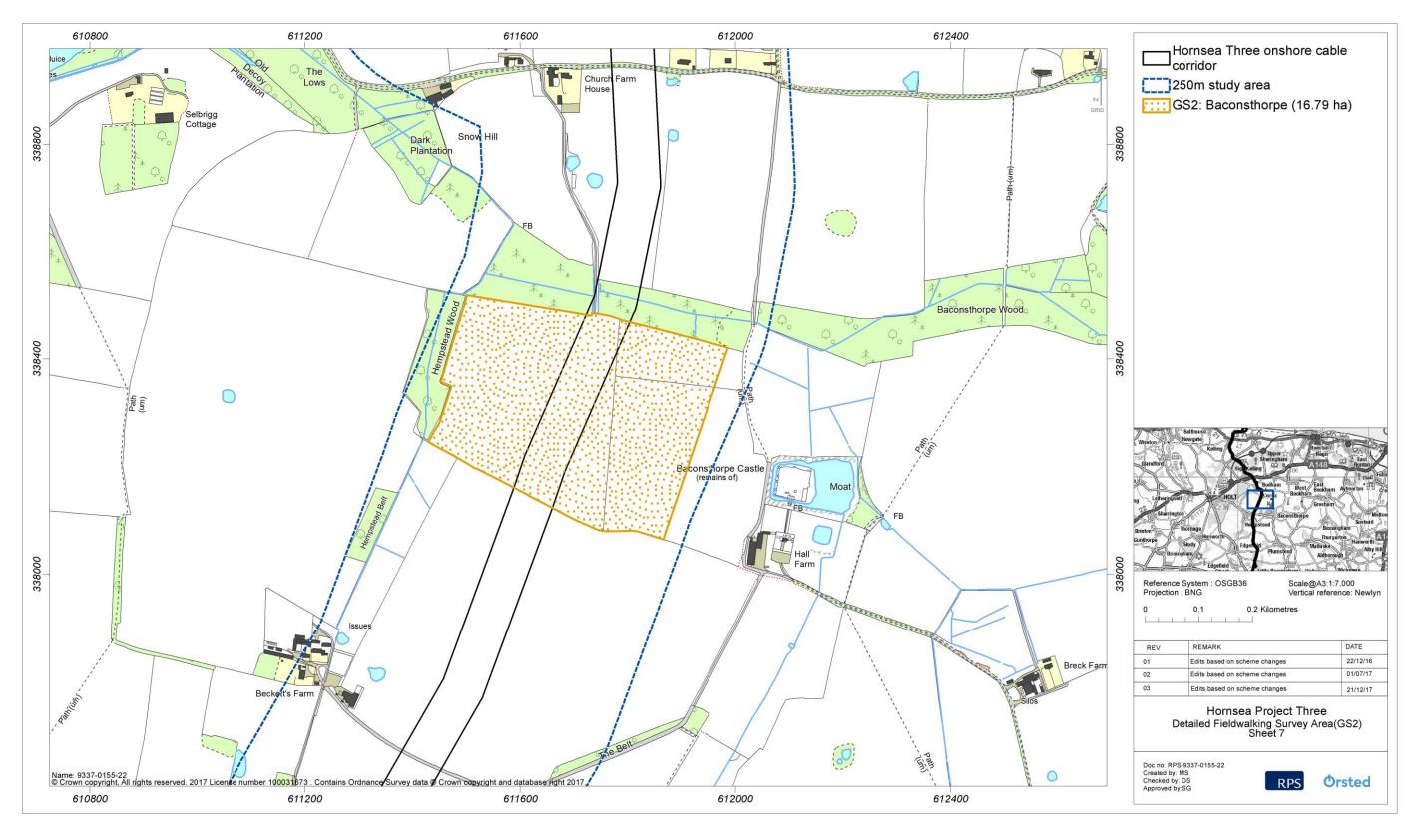


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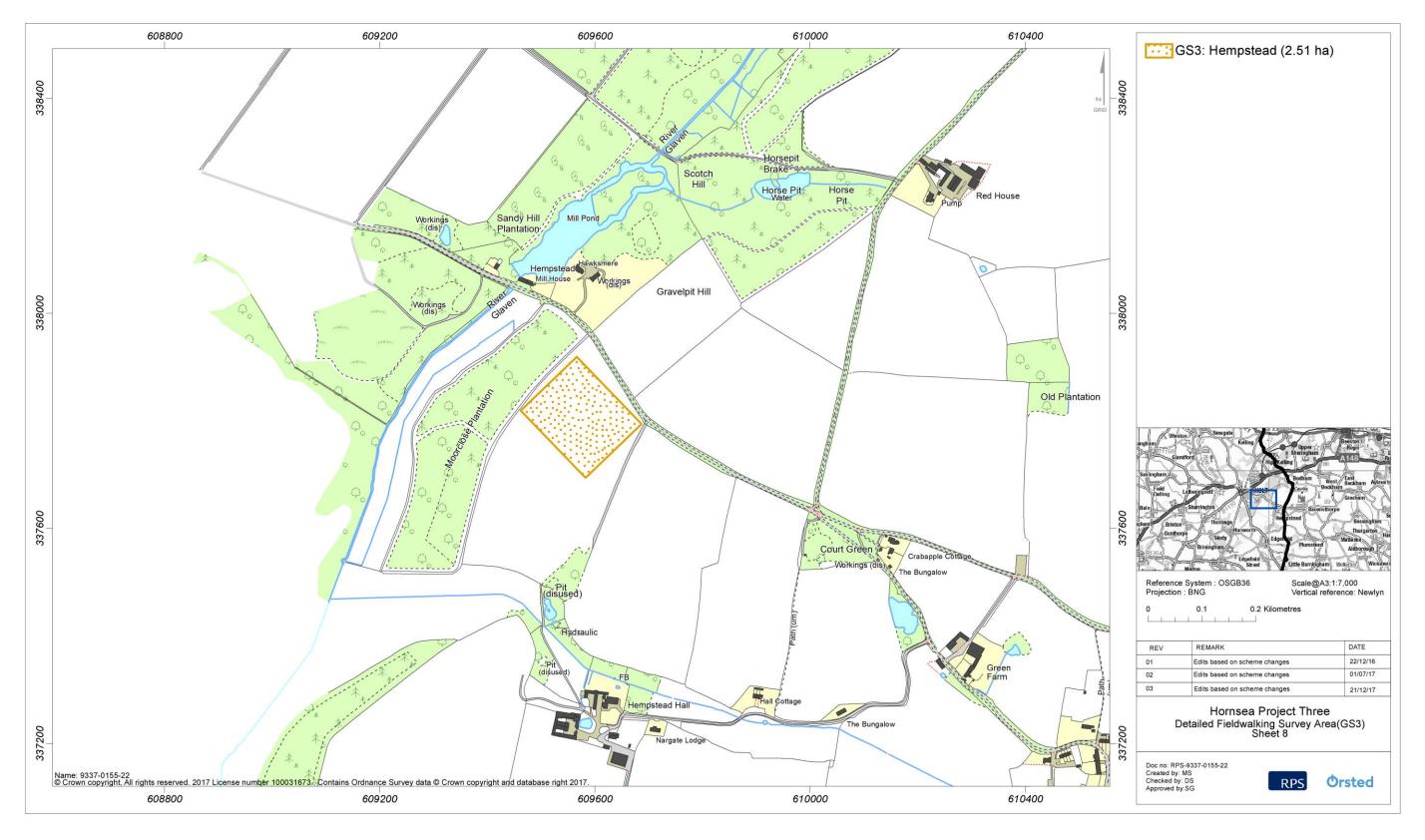


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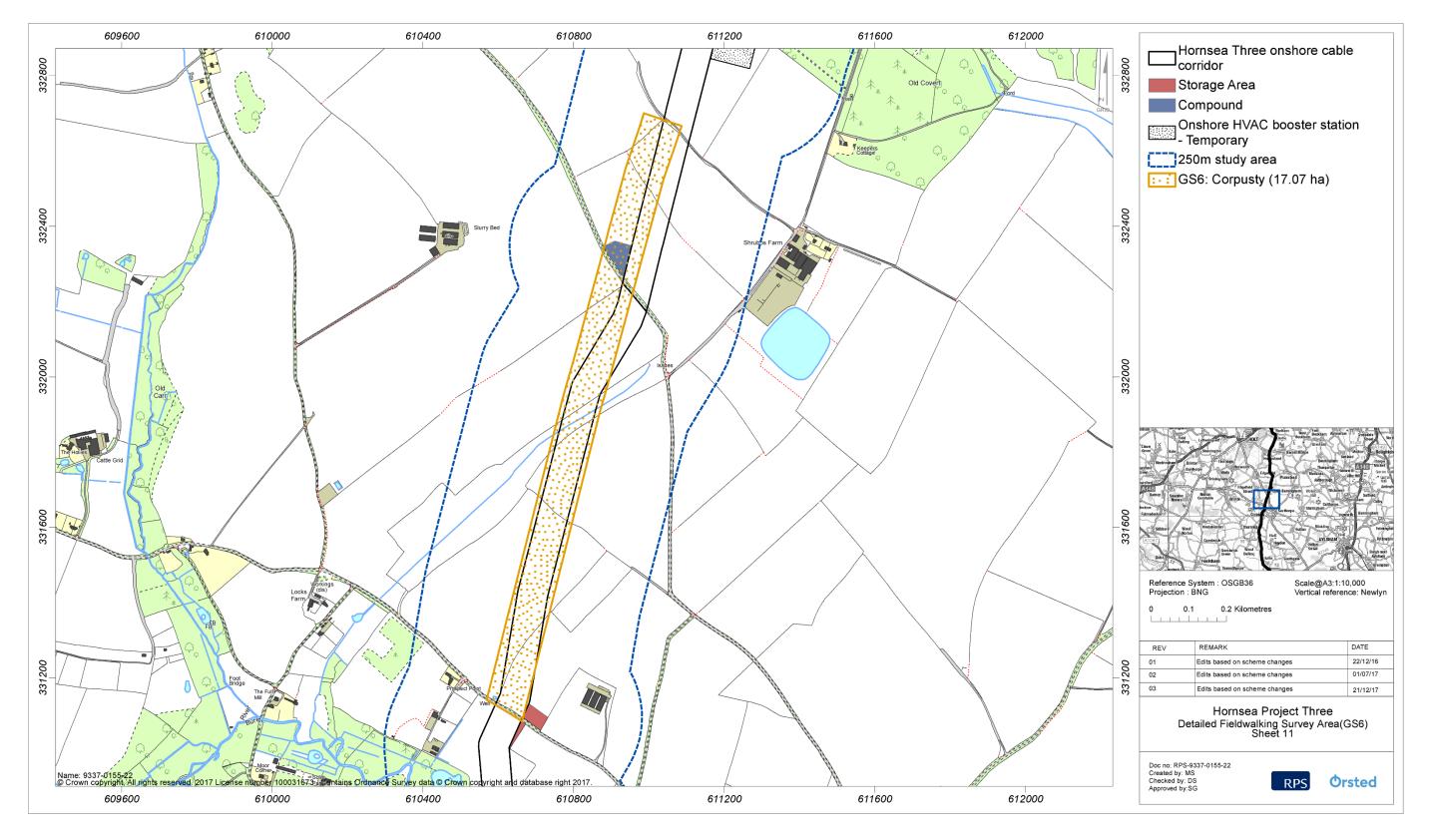


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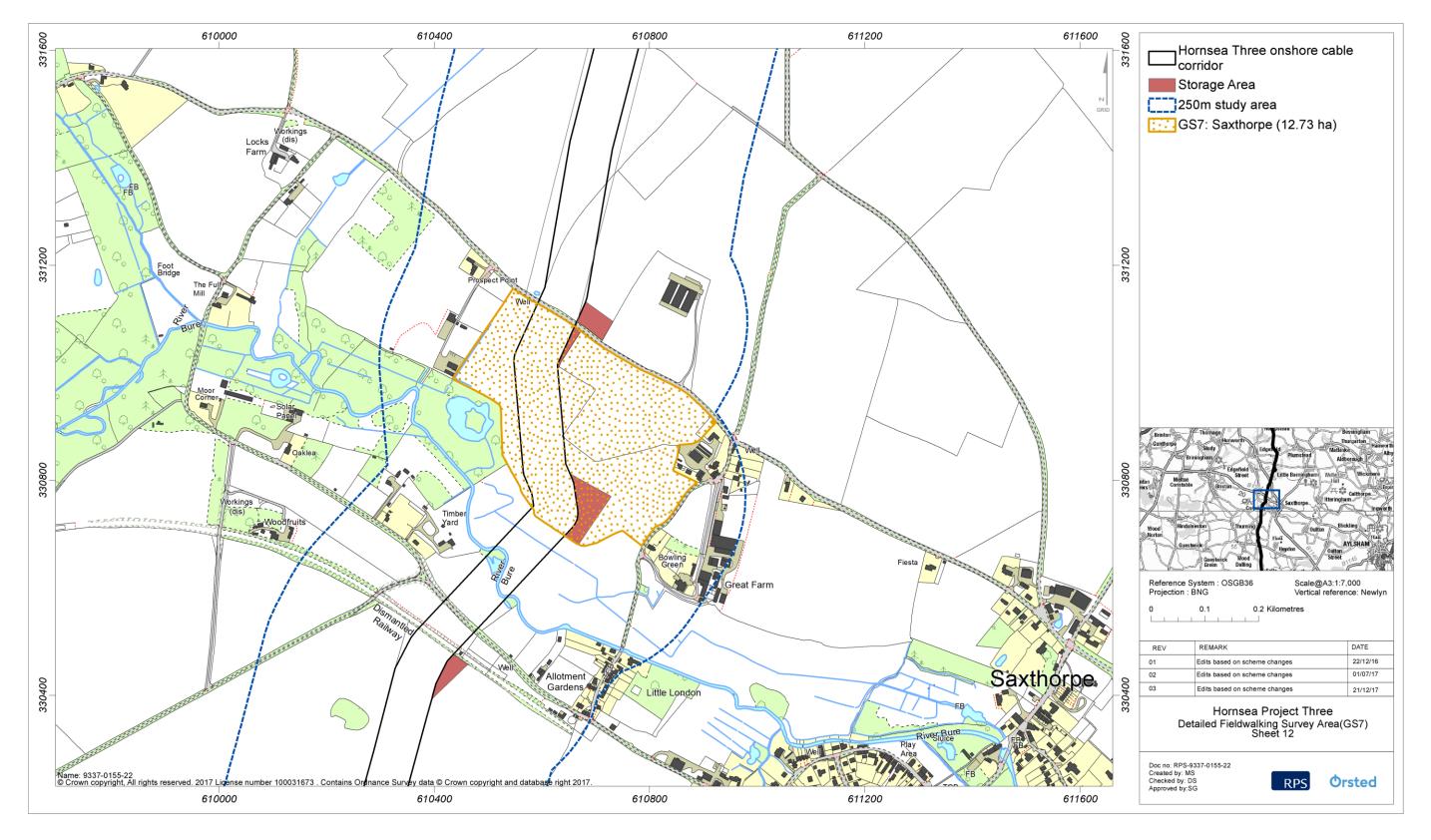


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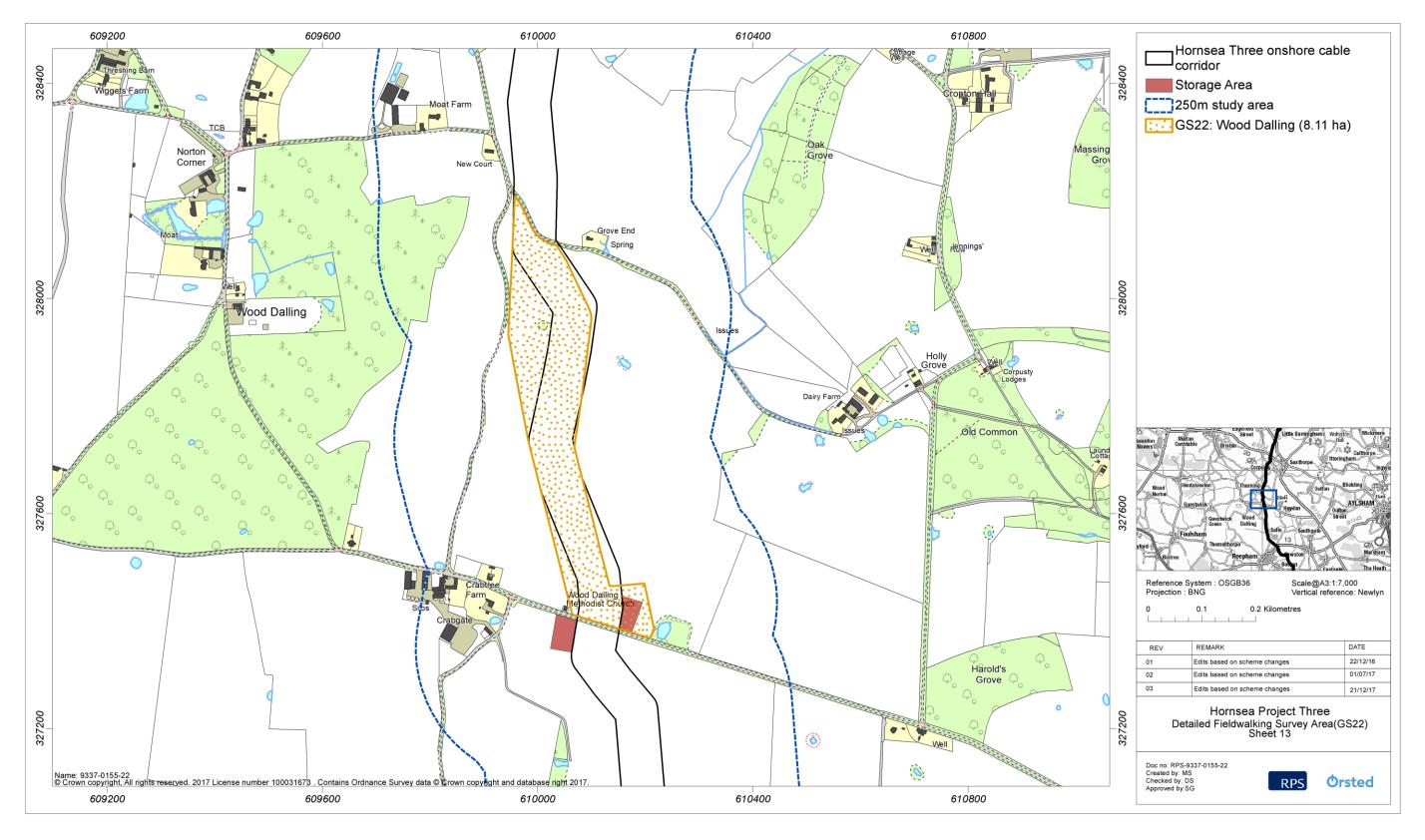


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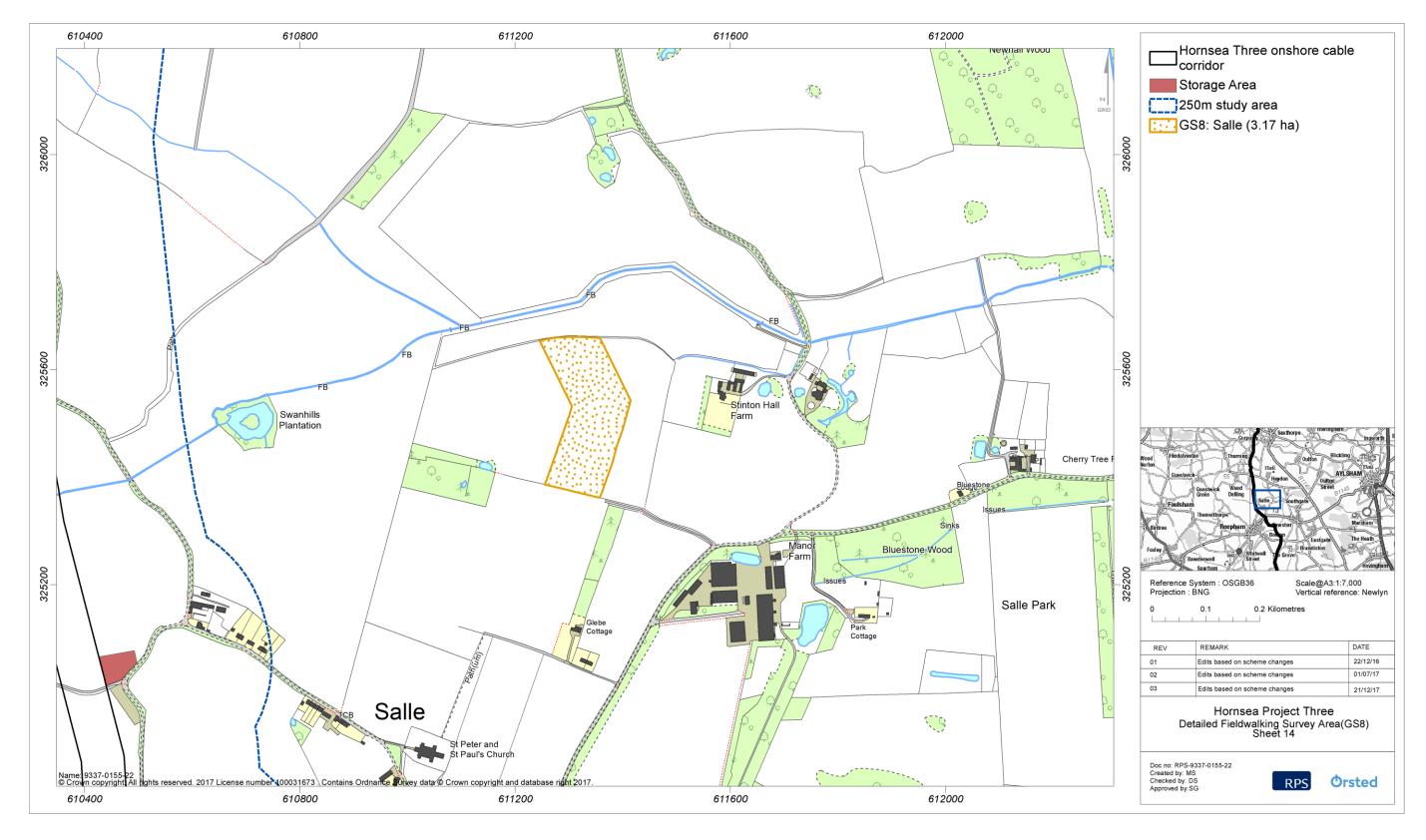


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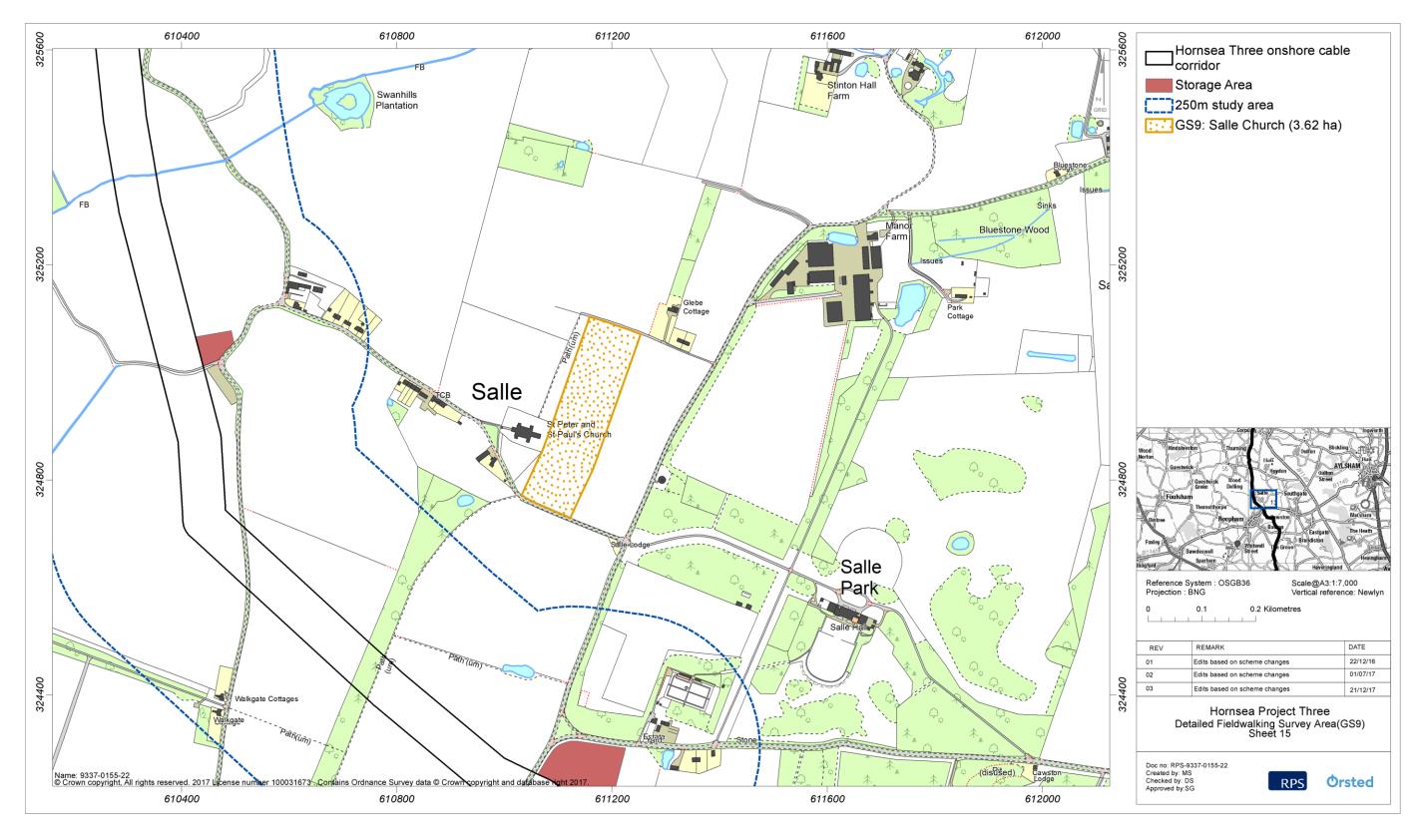


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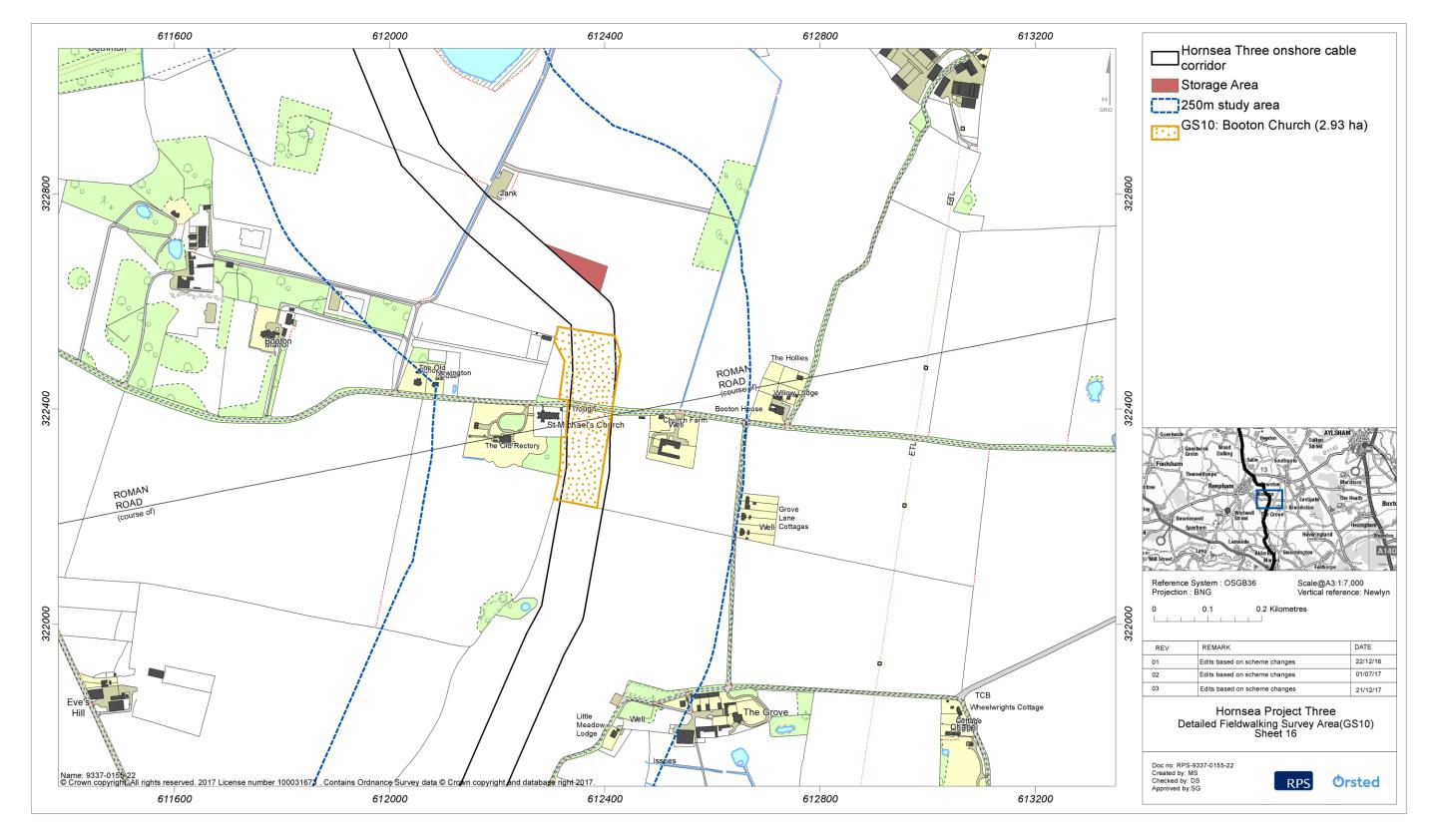


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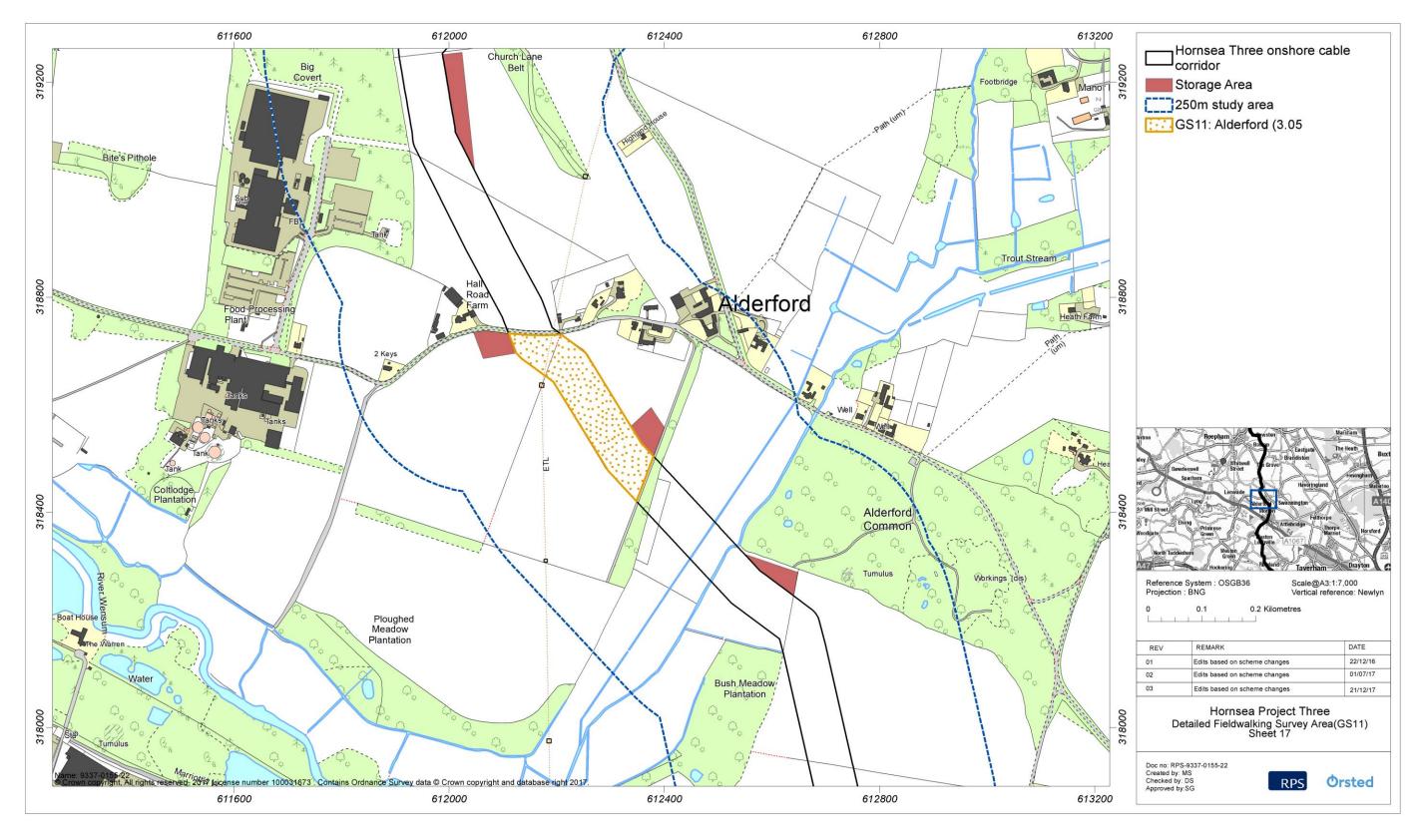


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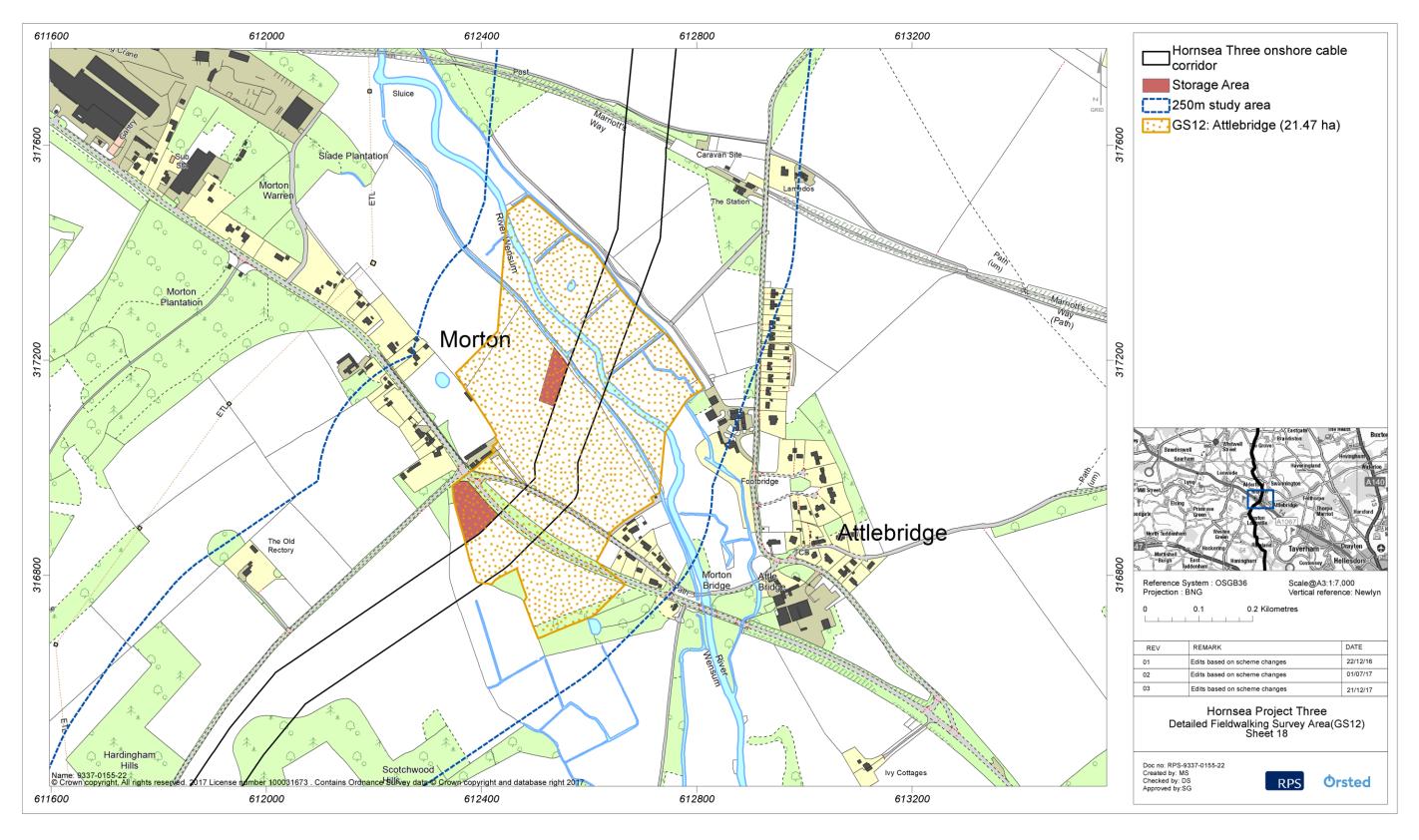


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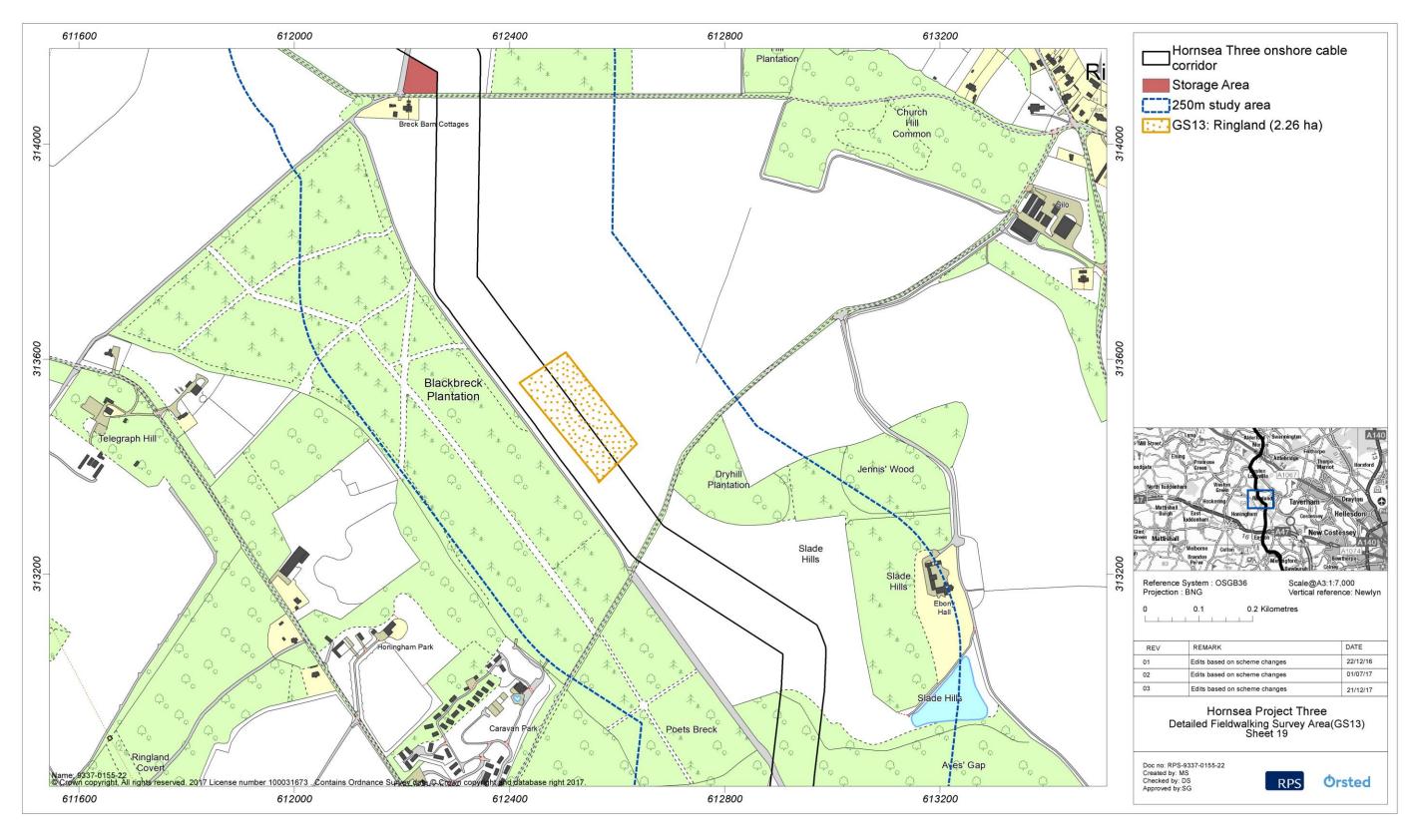


Figure 1.2: Detailed Fieldwalking survey areas.









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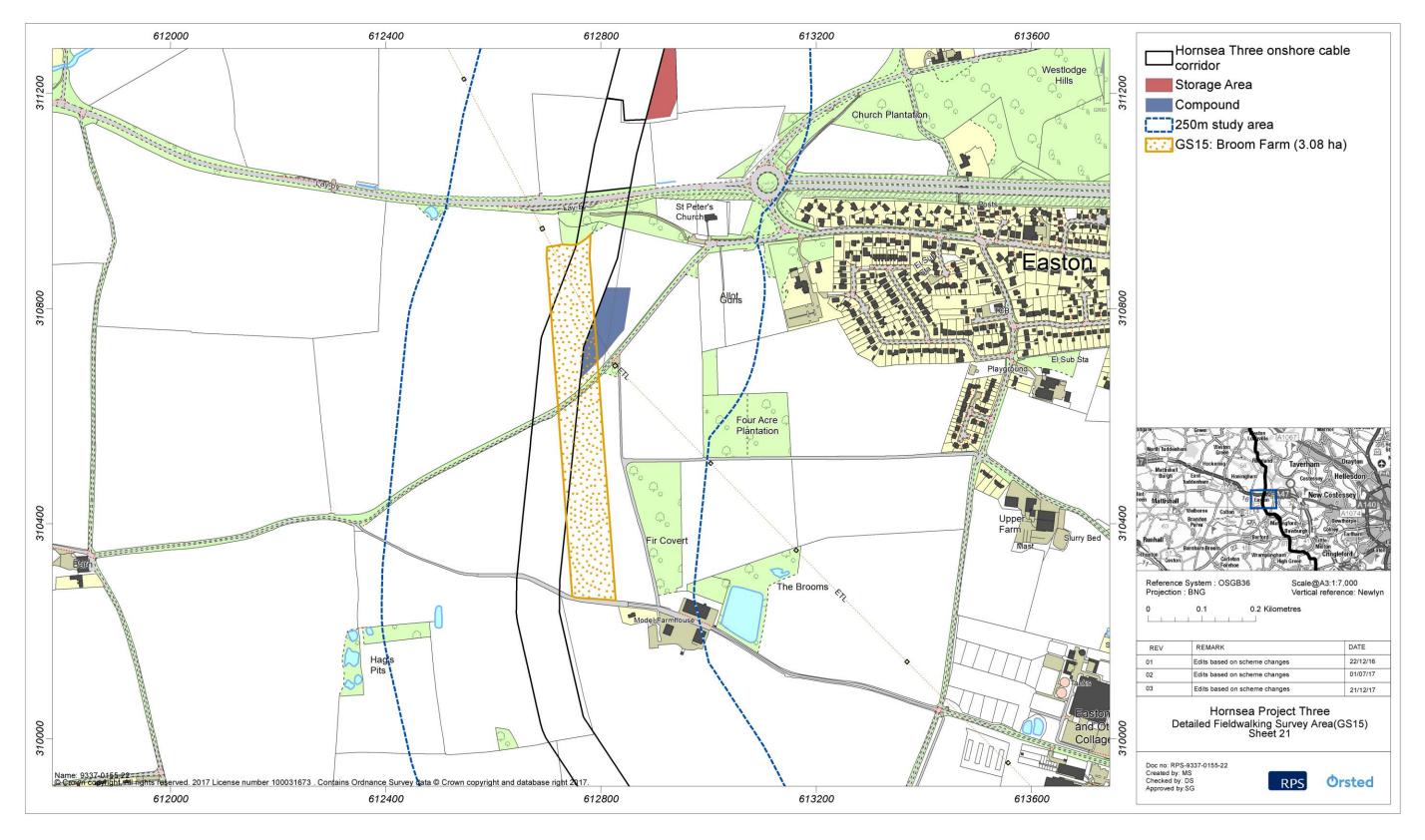


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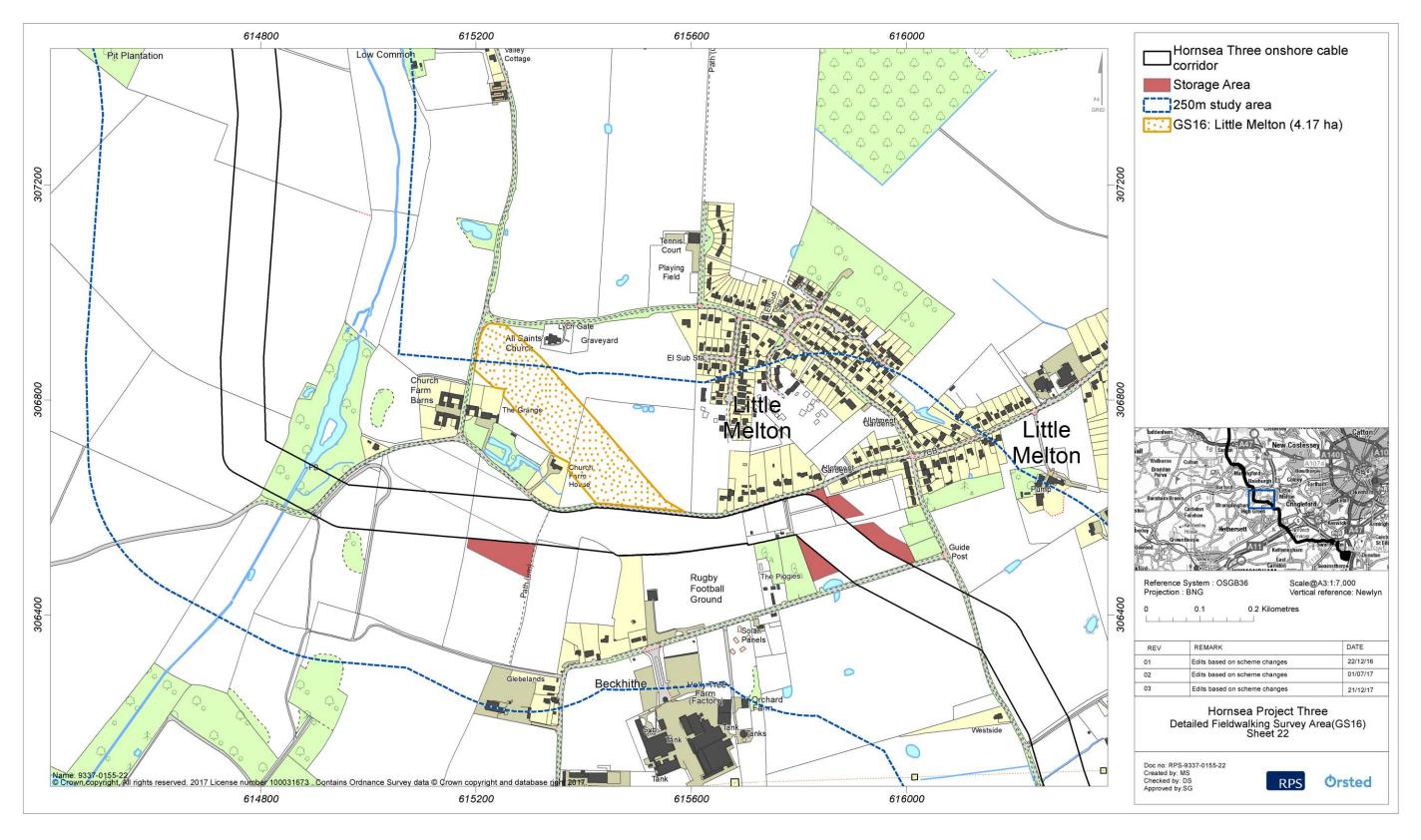


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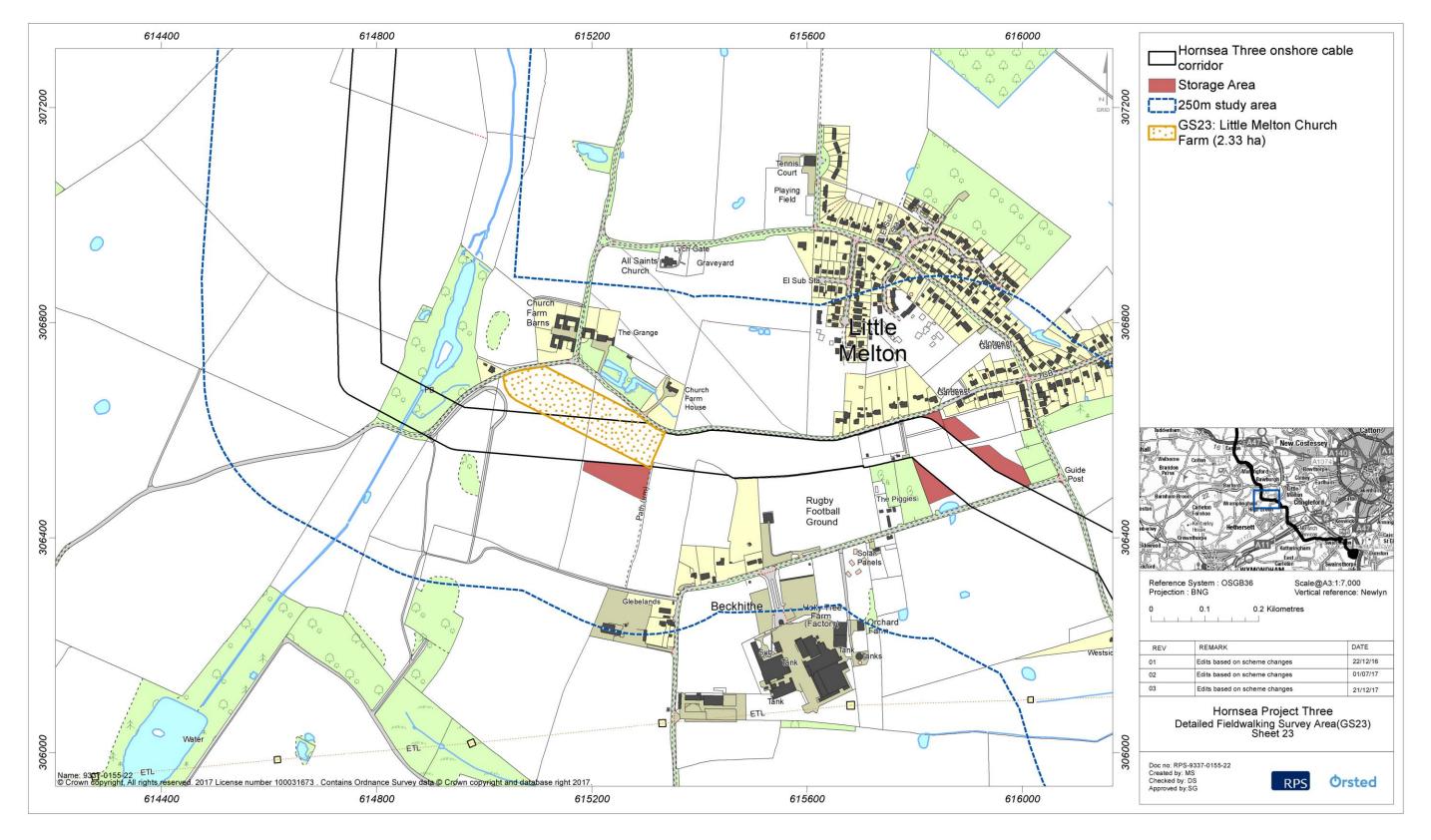


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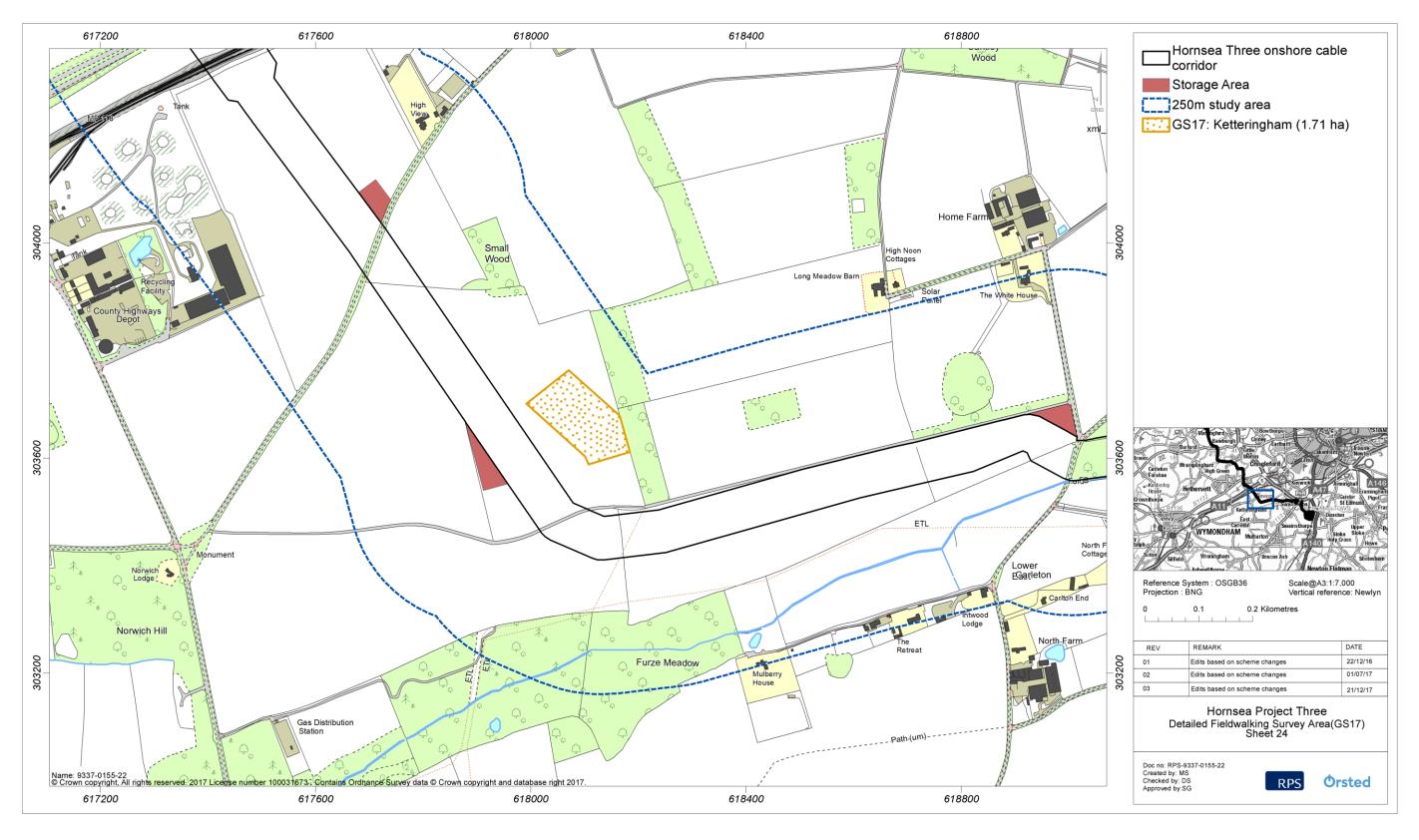


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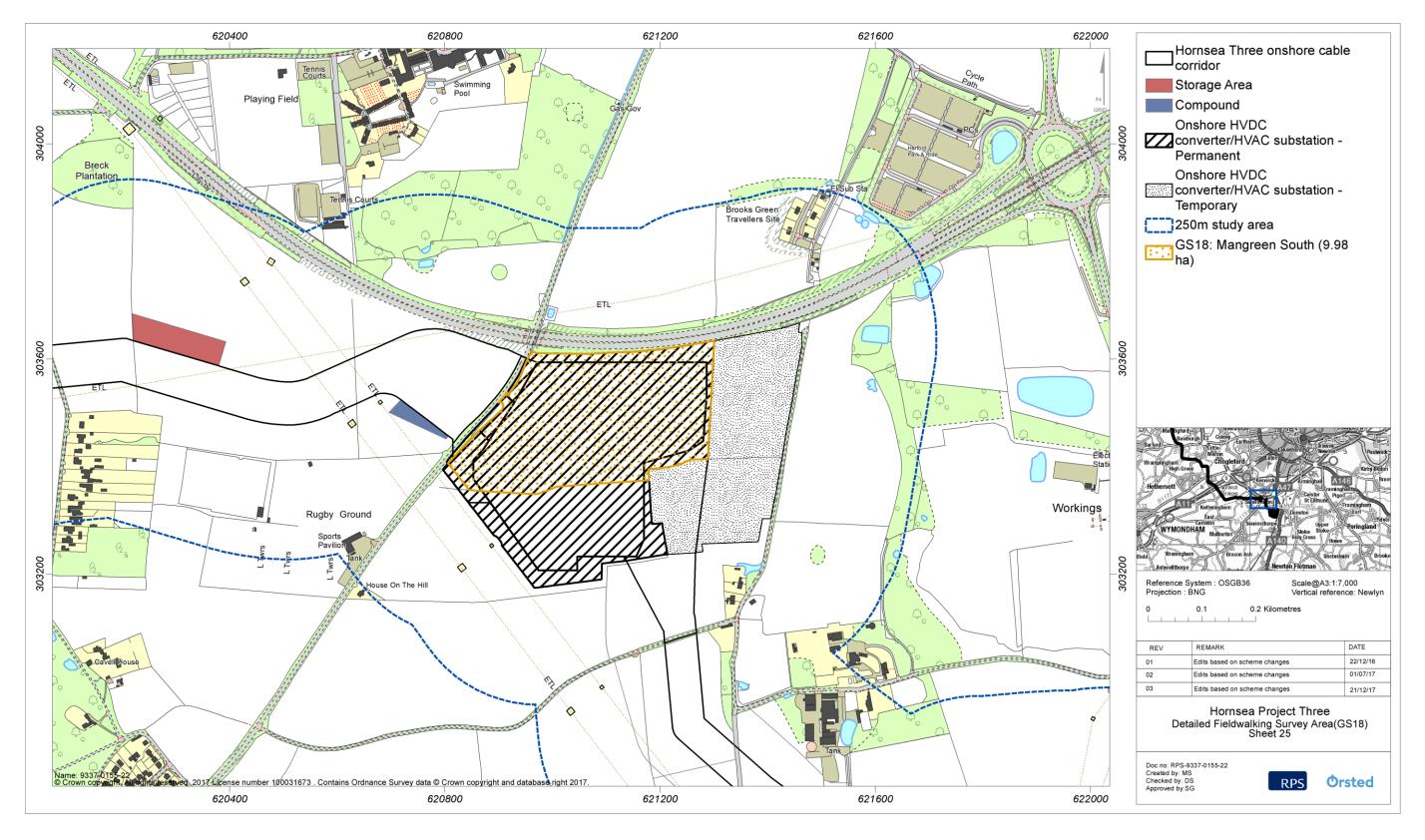


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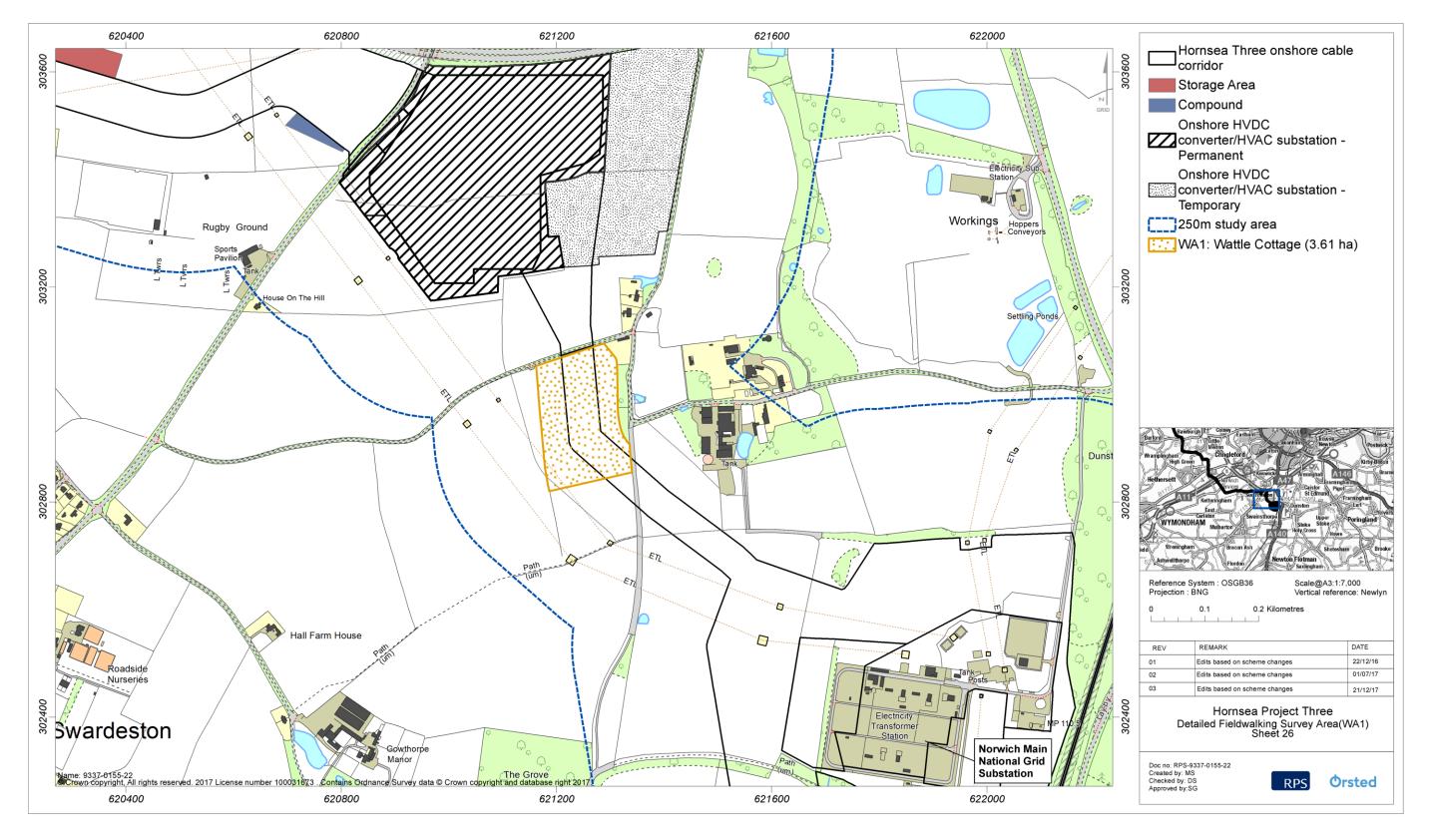


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