

ARCHAEOLOGICAL MONITORING REPORT

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East Lane pillbox and groynes, Bawdsey BAW 153 and BAW 164

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Summary

An archaeological monitoring was carried out along the coastline immediately east of East Lane, Bawdsey, Suffolk. This recorded a WWII hexagonal Type 22 pillbox and six 20th century east-west aligned groyne. The pillbox was largely undamaged, whilst only the structural elements of the groyne survived. Many of the groyne that were scheduled to be recorded had been removed prior to the archaeological visit.

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1. Introduction

An archaeological monitoring was carried out along the coastline at Bawdsey, Suffolk, to the east of East Lane (Fig. 1). This was in conjunction with works to improve the coastal defences, which would involve removing the majority of the groynes and burying the pillbox. The work was carried out on 24th February, 2010 and was funded by the Environment Agency, to a Brief agreed on by the Environment Agency and Suffolk County Council Archaeological Service, Conservation Team. Prior to this work, a survey was carried out, which detailed the position and condition of the BAW 153 pillbox (Everett, 2005, Suffolk County Council Archaeological Service, Field Team).

2. Site topography and layout

The top of the pillbox lay at c1.4m above the Ordnance Datum, which was c.1.1m above the current beach level. The pillbox was sunken into the shingle (Appendix 1). At approximately right angles to the beach, 6 groynes were visible running east-west. A single groyne had originally run north-south, west of the pillbox.

3. Methodology

A visit was made to the site at low tide, during the removal of groynes and other coastal defence material by the construction contractors. Digital photographs at 300 x 300 dpi were taken of the structures (Plates 1 and 2). Two elevations of the pillbox were drawn; one of the entrance elevation and another of a typical side elevation, both at a scale of 1:20. A plan was made of the window shuttering at 1:20. The position and plan of the pillbox was recorded using a Real Time Kinematics GPS, which was also used to obtain spot heights. Alignments and spot heights of the groynes were also recorded with the GPS. However, many of the groynes were not visible, partly due to the water level and current level of the sand and shingle. However many had already been removed prior to the visit by the archaeologists. As such the plan of the groynes is partially composed of alignments recorded by the Ordnance Survey. Further dimensions of the pillbox and groynes were made by hand and notes were made of the number of posts visible per groyne, relative to their visible length. Groyne locations shown on Figure 2 were largely made up from aerial photographs superimposed over Ordnance Survey maps. The pillbox has been recorded using the Historic Environment Record code BAW 153 and the groynes as BAW 164.

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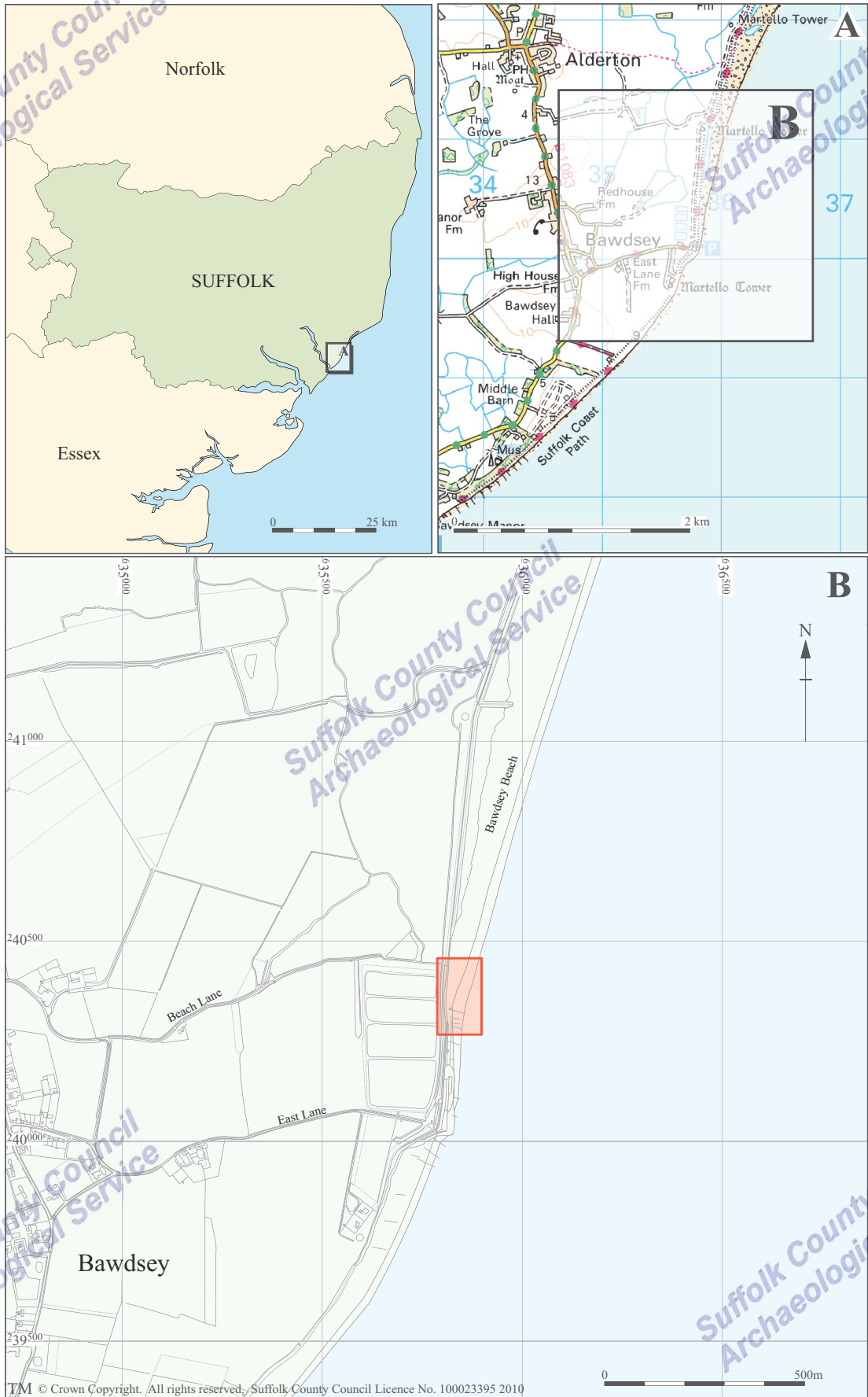


Figure 1. Site location, showing area of study (red)

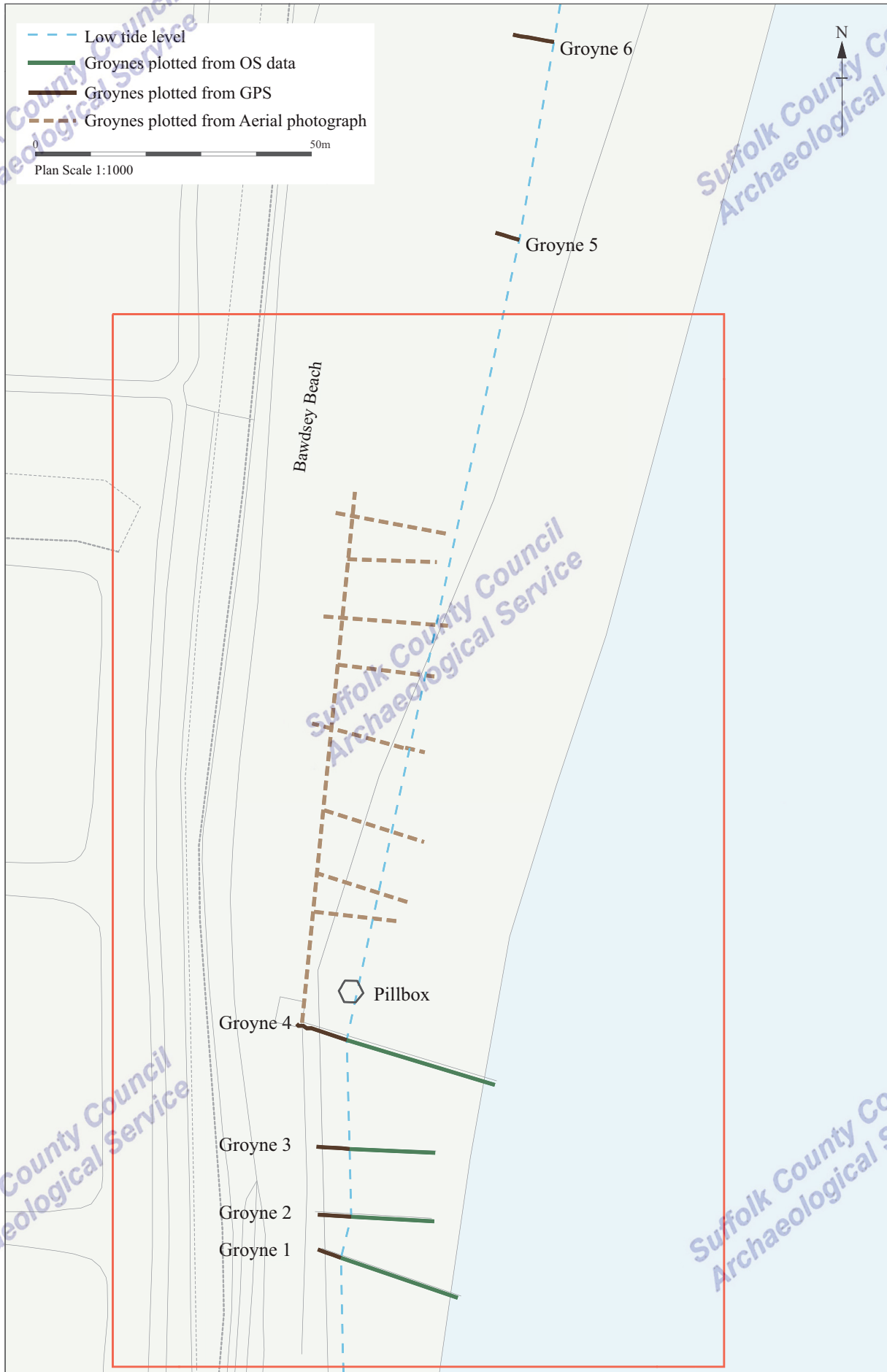


Figure 2. Site plan, showing development area (red)

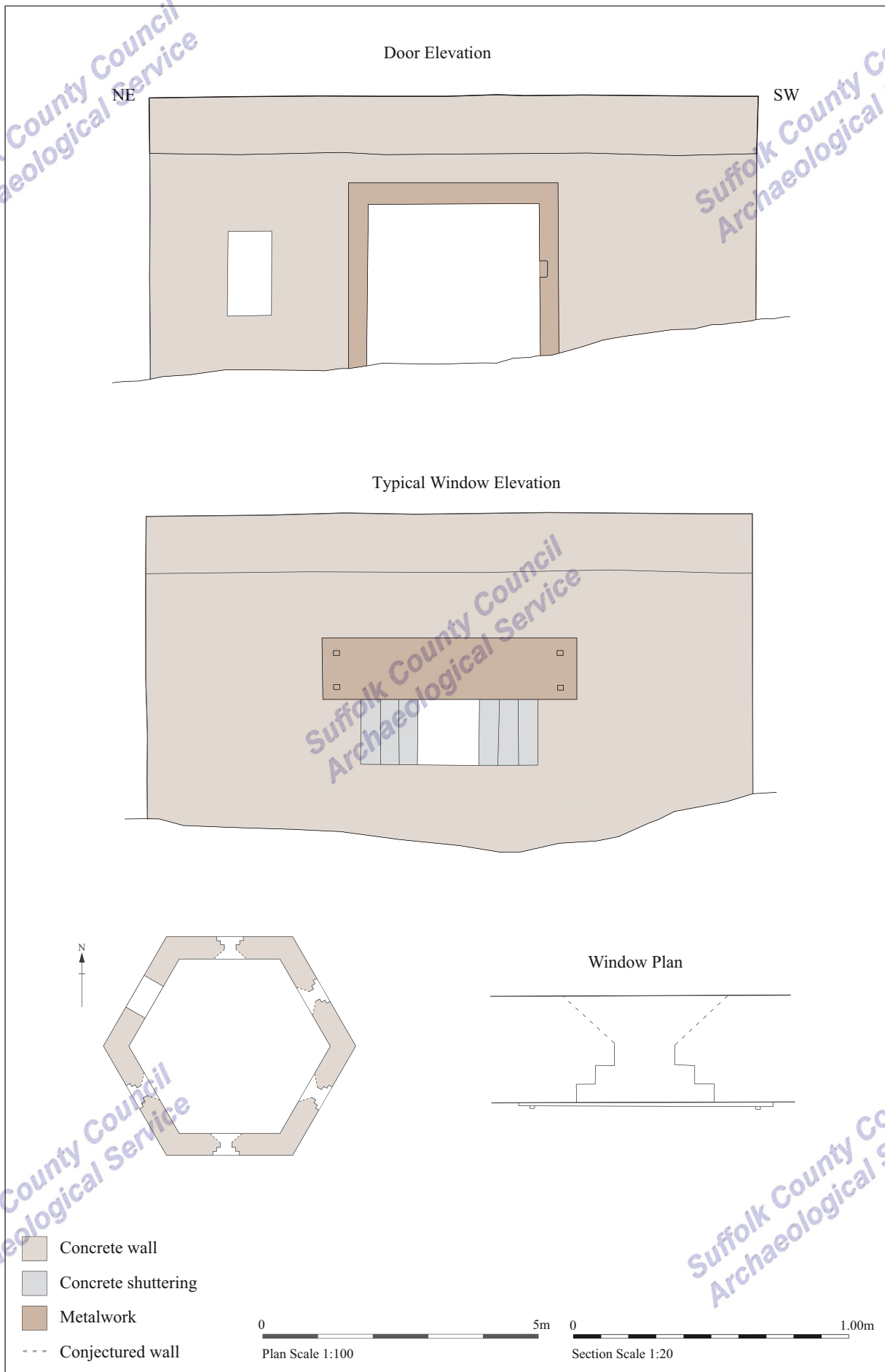


Figure 3. Pillbox elevations and plans

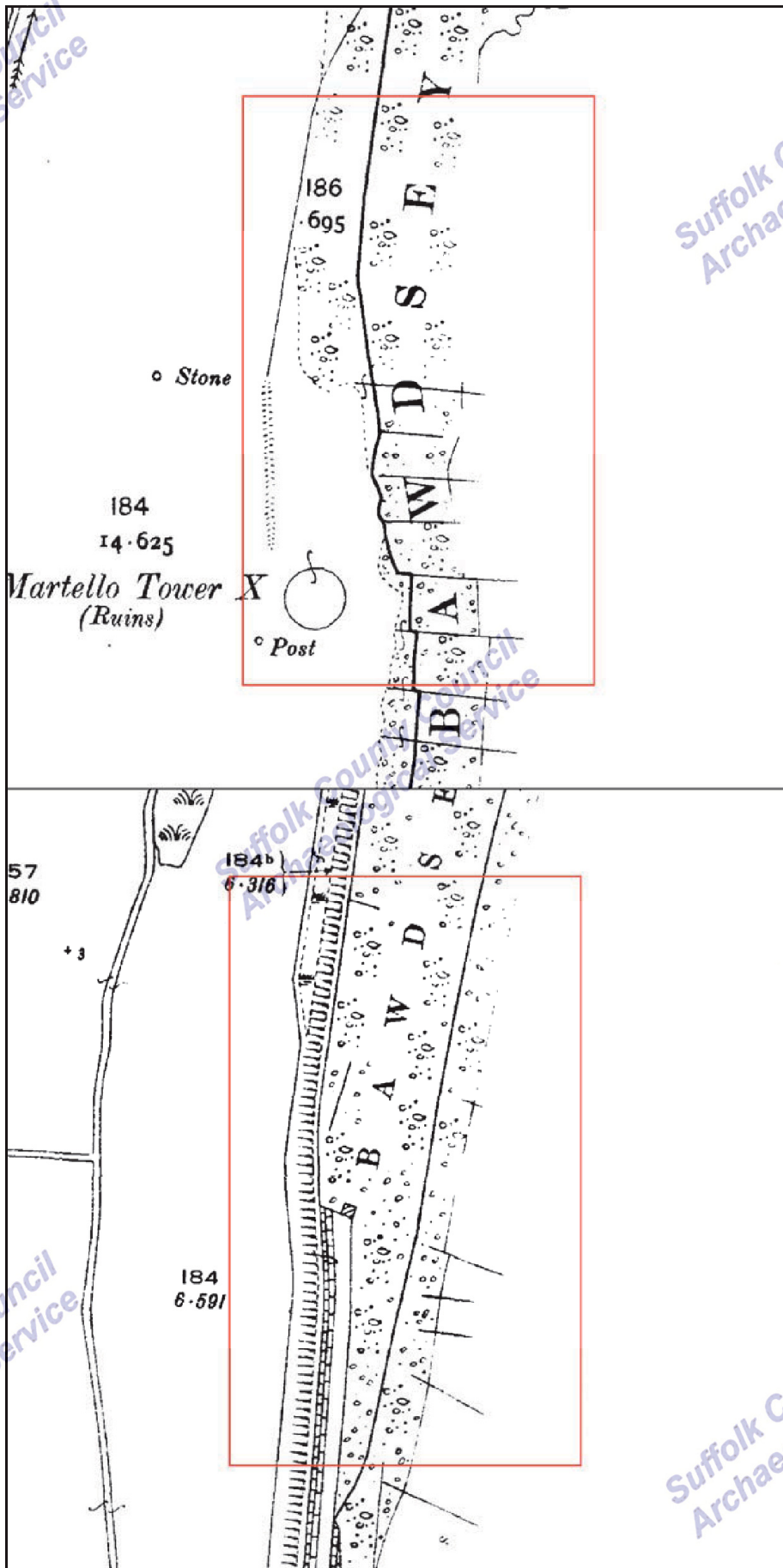


Figure 4. 2nd Edition OS map, 1904 (top) and 3rd Edition OS map, 1926 (bottom) with the development area outlined in red

4. Results

4.1 Pillbox

The survey revealed that the pillbox was of the MoD FW3/22 variety, known more commonly as a Type 22, with a hexagonal shape as shown on Figure 3 and Plate 4 (Matthews, 2010). The roof was made up of a flat concrete slab, which was 0.21m thick. The walls were c.0.4m thick. There was one entrance, which in this case was facing north-west and measured 0.62m across x >0.68m tall (Fig. 3 and Plate 1). It was enclosed by a metal frame, which was 0.07m thick. Left of the doorway was a further small window/opening, measuring 0.17m across x 0.31m tall. The remaining five elevations were identical to one another, with a single window, (or 'rifle loop') in each (Fig. 3 and Plate 2). Each loop measured 0.64m across x 0.24m tall and had three layers of concrete shuttering on each side, measuring 0.065m wide x 0.065m deep (Fig. 3). Beyond the shuttering, the wall ran at an approximately 45° angle. Centrally above each window, a metal plate was attached with 4 rivets. This measured 0.92m across x 0.22m tall x 0.01m thick.

Although it was not safe to enter the pillbox, an internal structure was visible (Plate 3). It was built of brick and appeared to function as structural reinforcement. The shape in plan was of a half hexagon, with the open side of the hexagon facing the doorway. This is fairly typical for the Type 22 style and it is likely that a further wall, aligned NW-SE in this case, would have run SE from this structure (Matthews, 2010).

As part of the sea defence works gravel was banked up around the structure to just below the height of the metal window plates (Plates 10-12).

4.2 Groynes

Only four groynes were visible in the development area, although originally 13 had been scheduled to be recorded (Fig. 2). This is because some had been removed prior to the visit by the archaeologist and some may have been covered by shingle.

The structures were made up of timber uprights that were roughly square in plan, measuring c.0.2m x c.0.2m (Plate 7). Horizontal timbers ran the length of each structure (Plate 5). The surviving timbers would have originally supported horizontal boards to trap sediment, although none survived. The tallest vertical uprights were always present

on the northern side of each groyne and were c.1.2m apart. Shorter uprights were also present on groynes 4-6, and these were generally on the southern side of each groyne (Plate 6). The groynes were fixed together using large metal bolts (Plate 8). The base of the uprights were sharpened to a point and capped with a metal 'shoe' so that they could be easily driven into the ground (Plate 9). Groynes 5 and 6 were not within the development area, but were recorded to prove that those that had already been removed would probably have been consistent with the six structures that were intact.

The completion of the sea defence works involved the removal of many of the groyne structures and the partial burial of the remainder (Plate 10).

5. Discussion and Conclusions

The fieldwork recorded the presence of a Type-22 WWII pillbox and four sea defence groynes within the development area and another two to the north.

The pillbox forms part of the defensive coastal landscape, coupled with other pillboxes located along the Suffolk shoreline, and in particular with the WWI pillbox and WWII gun site complex, WWII tank trap, and WWII beach defence scaffolding located just south of the pillbox's current location. The structure is not within its original position though, having moved slightly and being somewhat submerged due to coastal erosion. The structure is currently in relatively good condition, although it has deteriorated noticeably since the original County Council survey, having become damaged on the corners and discoloured (Everett, 2005).

The dating of the groynes has not been exact, although the presence of groynes 1-4 on the 1926 3rd edition OS map, but not on the 1904 OS map, suggests that these were constructed in the early 20th century (Fig. 4). Groynes 5 and 6 and the others shown on Figure 2 appear to have been built in a later phase. Other groynes were visible on the 2nd Edition OS map, but these do not appear to correspond to the groynes surveyed during the fieldwork. The alignment of the groynes is also interesting, as some run at a right angle to the beach, whilst others are on more of a NW-SE alignment. This may also indicate phasing of construction, but there is no further evidence to explain this.

6. Archive deposition

Paper and photographic archive: SCCAS Bury St Edmunds

T:\Arc\Archive field proj\Bawdsey\BAW 153 Pillbox

T:\Arc\Archive field proj\Bawdsey\BAW 164 Groynes

7. List of contributors and acknowledgements

The monitoring was carried out by Andy Beverton and Rob Brooks, from Suffolk County Council Archaeological Service, Field Team.

The project was directed by Rob Brooks, and managed by David Gill, who also provided advice during the production of the report.

The production of site plans and sections was carried out by Gemma Adams and Crane Begg. The report was checked by David Gill and Richenda Goffin.

8. Bibliography

Everett, L., 2005, *Bawdsey pillboxes*, available on request from Suffolk County Council Archaeological Service, Field Team, Bury St Edmunds (file path: T:\Arc\ALL_site\Bawdsey\BAW 153 Pillbox\Bawdsey pillboxes, Everett, 2005.pdf)

Matthews, G., 2010, *Type 22 Pillbox*, Pillbox Study Group, <http://www.pillbox-study-group.org.uk/>

Disclaimer

Any opinions expressed in this report about the need for further archaeological work are those of the Field Projects Team alone. Ultimately the need for further work will be determined by the Local Planning Authority and its Archaeological Advisors when a planning application is registered. Suffolk County Council's archaeological contracting services cannot accept responsibility for inconvenience caused to the clients should the Planning Authority take a different view to that expressed in the report.

Appendix 1. Photographic record



Plate 1. BAW 153, doorway elevation of pillbox, facing south-east



Plate 2. BAW 153, window elevation

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Plate 3. BAW 153, internal structure

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Plate 4. BAW 153, pillbox, facing south

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Plate 5. BAW 164, Groyne 1, facing south



Plate 6. BAW 164, Groyne 5, facing north-east



Plate 7. BAW 164, removed groyne



Plate 8. BAW 164, top of groyne



Plate 9. BAW 164, base of groyne

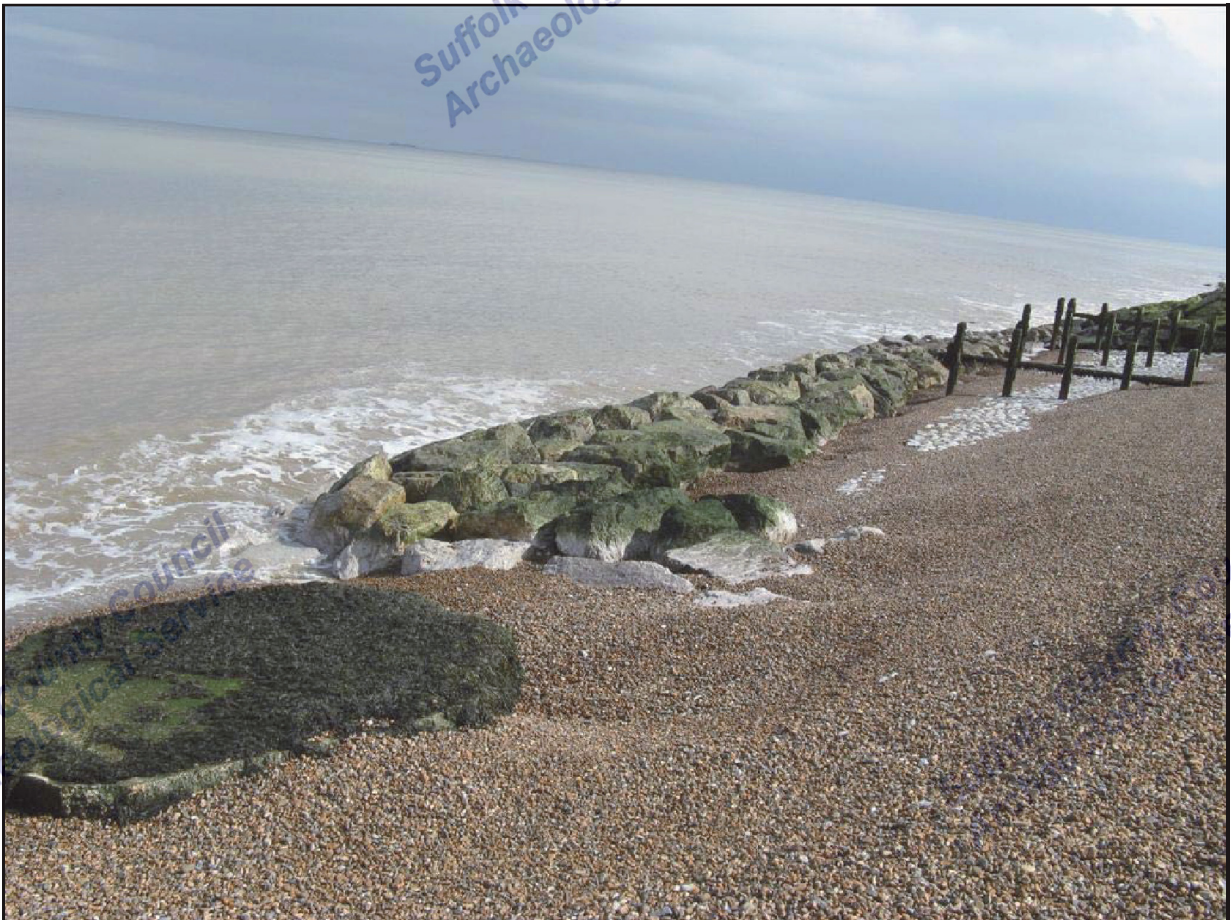


Plate 10. BAW 153 and 164, after completion of new sea defences, facing south-east (Courtesy of the Environment Agency)



Plate 11. BAW 153 after completion of new sea defences, facing north
(Courtesy of the Environment Agency)



Plate 12. BAW 153 after completion of new sea defences, facing west
(Courtesy of the Environment Agency)