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**ARCHAEOLOGICAL MONITORING AND  
RECORDING AT THE PORT OF BOSTON,  
BOSTON,  
LINCOLNSHIRE  
(BOPO 14)**

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**Work Undertaken For  
WYG Environment**

December 2014

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**ARCHAEOLOGICAL  
PROJECT  
SERVICES**





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## 1. SUMMARY

*A programme of archaeological monitoring and recording was undertaken at the Port of Boston, Boston, Lincolnshire. A series of geotechnical trial pits and boreholes were monitored in advance of flood defence works.*

*However, the only deposit of archaeological interest was a peat in several boreholes corresponding to a peat layer revealed in a borehole survey undertaken by Archaeological Project Services in 2010. This was interpreted as representing a Middle Neolithic land surface. The trial pits generally revealed only a considerable depth of modern overburden. Some of them were excavated to establish the position of dock wall tie rods.*

*Finds retrieved during the investigation comprised metal and wood objects and animal bone.*

## 2. INTRODUCTION

### 2.1 Planning Background

Archaeological Project Services was commissioned by WYG Environmental to undertake a programme of archaeological investigations during groundworks associated with geotechnical assessments of existing flood defences alongside The Haven at the Port of Boston, Boston, Lincolnshire. The investigations were carried out between the 8<sup>th</sup> September and 30<sup>th</sup> October 2014 in accordance with a specification prepared by Archaeological Project Services and approved by the Boston Borough Planning Archaeologist.

### 2.2 Topography and Geology

Boston is situated 45km southeast of Lincoln and approximately 7km northwest from the coast of The Wash, in the Fenland of south Lincolnshire. Bisected by

the River Witham, the town is located in the administrative district of Boston, Lincolnshire (Fig. 1).

The investigation area is located 1km south of the centre of Boston within the Port of Boston at National Grid Reference TF 333 431 (Fig. 2).

Local soils have not been mapped as the investigation sites are within an urban area. However, local soils are likely to be of the Wisbech Series, typically coarse silty calcareous alluvial gley soils (Robson 1990, 36). These soils are developed upon a drift geology of younger marine alluvium which in turn overlies glacial till that seals a solid geology of Jurassic Amphill Clay (BGS 1995).

### 2.3 Archaeological Setting

There is little evidence for prehistoric remains in the Boston area as the land surface of that period is now buried by later alluvium (peats, silts, clays *etc.*). A Neolithic stone axe, found within the town, is considered to be a later import. However, previous examination of bore columns taken in the immediate vicinity of the present investigation area identified peat deposits at -2.00m to -2.65m OD (between 4.8m and 8.4m below present ground level). Radiocarbon dating of these peats indicated that they all dated from the period 3300 to 2900 BC. Therefore, it is likely that these separate peats deposits are part of the same horizon and comprise vegetation growing on the Middle Neolithic land surface (Taylor 2011).

Previous examination of bore columns from the same Boston Barrier area revealed deposits of medieval date. On the north side of the present channel were gravelly sands containing artefacts of 14<sup>th</sup>-16<sup>th</sup> century date. On the south side of the channel, in the immediate vicinity of the present sampling area, were river silts of 13<sup>th</sup>-15<sup>th</sup> century date. These medieval deposits were encountered at *c.* -2.5m OD

on the north side of the channel and c. - 3.5m OD on the south side. These dated layers were probably deposited after a river wall was installed in the medieval period. The installation of such a wall would have confined the channel and led to the river scouring its bed and deepening (Taylor 2010, 6-7). Evidence that the river had been wider and was confined by a wall in the medieval period has been identified previously (Peachey 2004, 5).

### 3. AIMS AND OBJECTIVES

The aim of the investigation was to record and interpret the deposits and any archaeological features exposed during the groundwork.

The objectives of the investigation were to determine the form and function of the archaeological remains encountered and their spatial arrangement; to, as far as practicable, recover dating evidence from the archaeological remains and deposits, and to establish the sequence of archaeological remains present on the site.

### 4. METHODS

Trial pits were excavated at several locations within the Port of Boston area (Fig. 3). Each pit was excavated by machine to depths determined by geotechnical engineers. Additionally, a number of boreholes were also examined.

Each deposit identified during the investigations was allocated a unique reference number (context number) with an individual written description. A list of all contexts and their descriptions appears as Appendix 1. A photographic record was compiled and sections were drawn at a scale of 1:10 and 1:20. Recording was undertaken according to standard Archaeological Project Services practice.

Following excavation the records were

checked and a stratigraphic matrix produced. Phasing was assigned based on the nature of the deposits and recognisable relationships between them.

## 5. RESULTS

Archaeological contexts are listed below and described. The numbers in brackets are the context numbers assigned in the field. The pits (Fig 3) are described in the order in which they were excavated.

### *Trial Pit 03MFTP01 (Fig 4, Section 1)*

The earliest deposit within this pit was a dumped deposit of mixed brown and grey silt (005). This measured in excess of 0.5m thick and was overlain by a further dumped deposit of 0.4m thick dark grey and brown silt and sand (004). Above this, rubbly modern disturbance (003) supported concrete block [002]. The uppermost deposit was 0.3m thick crushed limestone surface (001).

### *Trial Pit 03MFTT02 (Fig 4, Section 2)*

The earliest deposit recorded in this trench was mid bluish grey clay (009). Above this was a 0.65m thickness of sandy silt and cobbles (008) within which was iron tie rod (010), at a depth of 1.6m. This was one of several tie rods affixed between the dock walls for strengthening purposes. Above layer (008) was 0.6m thick crushed limestone (007) which was overlain by 0.4m thick black tarmac surface (006).

### *Trial Pit 03MFTT04 (Fig 4, Section 3)*

The deposits in this trial pit were similar to the above with an at least 0.26m thickness of (008) at the base. This contained a further iron tie rod (011) (Plate 2), at a depth of 1.52m. Above the sandy silt and cobbles was 0.9m thick crushed limestone (007) which was topped by 0.44m thick tarmac (006).

### *Trial Pit 03MFTT03 (Fig 4, Section 4)*

This was a further pit in the area of the docks east of the Harbour Master's office

and contained similar deposits to the above two.

The earliest deposit was at least 0.4m thick sandy silt and cobbles (008) within which was iron tie rod (012) at a depth of 1.4m. This was overlain by 0.68m thick crushed limestone (007) above which was 0.31m thick tarmac (006).

***Trial Pit 03WDTP02 (Fig 4, Section 5)***

The earliest deposit in this trial pit was at least 0.3m thick mid brown clayey silt (018) which was overlain by 0.24m thick dark grey rubble/sandy silt (017). Above this a 0.3m thick crushed limestone layer (016) providing the ballast for a disused railway siding represented by wooden sleeper (015). This had been buried by a layer of brown to white limestone fragments (014) forming the current surface.

***Trial Pit 03FWTP01 (Fig 4, Section 6)***

Iron quay ties (022) and (023) were uncovered in the base of this pit and were overlain by at least 0.3m thick bluish grey clayey silt (021). Above this was 0.35m thick dark brownish grey silt (020) which was topped by the 0.3m thick light brown to white limestone surface (019).

***Trial Pit 03KKTP02 (Fig 4, Section 7, Plate 1)***

In this trial pit, at the east end of the quay, the stone inner face of the quay wall [028] was revealed. This was overlain by an at least 2m thick dumped deposit of mid greyish brown silt with timber fragments (027). Above this was a 0.5m thickness of dark grey silt, gravel and cinders (026). A 0.5m thick layer of grey rubble (025) supported the current tarmac surface (024).

***Trial Pit 03WDTP01 (Fig 4, Section 8)***

The lowest deposit encountered in this trial pit was at least 0.22m thick mid brown clayey silt (033). Above it was a 0.2m thick layer of brownish grey silt (032) which was overlain by 0.48m thick limestone railway ballast (031). A concrete sleeper (030), supporting the rails, was

buried beneath the 0.1m thick current tarmac surface (029).

***Trial Pit 03FQTP01 (Fig 4, Section 9)***

The earliest deposit in this trial pit was at least 0.34m thick light brown sandy silt (036) which was overlain by 0.36m thick mid grey cinders and gravel ballast (035). This was sealed by 0.2m thick mid greyish brown silty sand (034).

***Rotary core 03LKRC01 (Fig 5, Section 10)***

This borehole lay close to the entrance lock for the dock. The cores were laid out for examination. The borehole extended to a depth of 15.26m. Stiff mid grey clay (038) with frequent chalk fragments and flints comprised the deposits below 9.5m depth. Above this, the material appeared to be the quay wall (037) being composed of brick and concrete, with some cracking apparent (Plate 3).

***Rotary core 03LKRC03 (Fig 5, Section 11)***

This borehole was immediately adjacent to the above and was 12.25m in depth. The stiff mid grey clay (043) was overlain by a 10.25m thickness of quay wall (039).

***Trial Pit 03FWTP04 (Fig 6, Section 12)***

In this pit, at least 1m thick dark greyish brown silty sand dumped deposit (046) was overlain by further dumped deposits of grey silt and sand (045) and light brown sandy silt (044). Above this was dark grey brown ashy silt (042). Topping this was a 0.4m thick crushed limestone make-up layer (041) for 0.15m thick tarmac surface (040).

***Trial Pit 03FWTP03 (Fig 6, Section 13)***

The earliest deposit reached in this trial pit was at least 0.1m thick brownish grey sandy silt (054). Iron tie rod (053) was located just above this layer at a depth of 3.67m OD. This was overlain by 0.75m thick mid brownish grey silt and sandy silt (052). A 0.15m thick layer of loose black ash (051) was sealed by 0.1m thick light

brown sandy silt with red brick fragments (050) above which was 0.5m thick light brown sandy silt (049). Topping this layer was 0.55m thick dark grey sandy silt (048) above which was light brown sandy silt (044) overlain, in turn, by 0.3m thick dark grey ashy clay (047) from which a metal find, probably part of a post-medieval drag anchor was retrieved (Appendix 2). Above this was a 0.4m thick crushed limestone make-up layer (041) for 0.15m thick tarmac surface (040).

***Trial Pit 03FWTP02 (Fig 6, Section 14)***

Iron tie rod (064) was included within at least 1.4m thick mid grey sandy silt dumped deposit (063) at a depth of 3.92m. This was overlain by 0.6m thick brown/grey clayey silt (062), above which was mid brown clayey silt (061). Overlying this was brownish grey silt (059) at the top of which was another iron tie rod (060) at a depth of 0.8m and was sealed by 0.18m thick grey/black grit and ash (058). Above this, 0.42m thick mid grey stone (057) was overlain by limestone fragments (056) providing the base for 0.1m thick tarmac surface (055).

***Trial Pit 03WDTP03 (Fig 6, Section 15)***

In the base of this pit, at least 0.5m thick grey sandy silt (067) was overlain by 1.55m thick mid brown sand (066) which was topped by 0.45m thick tarmac (065).

***Trial Pit 03DRTP01 (Fig 6, Section 16)***

The lower part of this pit comprised at least 1.1m thick dark brown clay (073). Above this was a substantial dumped deposit of mid brown clay with yellow clayey silt (072), 2.35m thick which was overlain by a 0.35m former surface of black tarmac (071). An overlying 0.28m thick layer of crushed brick (070) formed the base for a 0.27m thick crushed limestone surface (069).

***Trial Pit 03DRTP03 (Fig 6, Section 17)***

This pit was excavated onto a very firm compacted limestone surface (077) at a depth of 2.5m. It was overlain by greyish

brown silty sand (076) above which was 1.25m thick grey clay mixed with very modern rubble (075). This was sealed by a 0.25m thick loose rubble surface (074).

***Trial Pit 03DRTP02 (Fig 6, Section 18)***

In this trial pit the compacted limestone surface (077) was reached at a depth of 3.11m. It was overlain by 2.4m thick greyish brown silty sand (076) above which was 0.45m thick dark greyish brown clayey silt (078). This was sealed by 0.26m thick loose rubble surface (074).

***Trial Pit 03DRTP04 (Fig 6, Section 19)***

The same compacted limestone surface (077) was reached at a depth of 2.59m. This was overlain by 1.1m thick dark brown clay with concrete fragments (080) above which was 1.16m thick mottled yellow and grey clay (075). This was topped by 0.34m thick grey clayey silt (079).

***Trial Pit 03DRTP07 (Fig 6, Section 20)***

The earliest deposit in this pit was at least 2.2m thick mid brown clay (087). This was overlain by 0.28m thick brick and concrete rubble (086) above which was 0.2m thick clinker with brick fragments (085). Further layers of 0.3m thick dark brown clayey silt (084), 0.15m thick mid yellowish brown gravel (083) and 0.9m thick greyish brown clay and rubble (082) were topped by 0.35m thick crushed limestone surface (081).

***Trial Pit 03DRTP06 (Fig 6, Section 21)***

This trial pit was also stopped on compacted limestone surface (077), this time at a depth of 2.78m. Overlying it were dumped deposits of 0.9m thick mid grey ballast and ash with frequent brick fragments (091) and 0.78m thick greyish brown clayey silt (090). This was overlain by 0.87m thick mid brown clayey silt (089) above which was a 0.24m thick surface of small granite chippings (088).

***Trial Pit 03DRTP05 (Fig 6, Section 22)***

This was the final pit to bottom out on



compacted limestone surface (077), at a depth of 2.72m. The surface was overlain by 0.92m thick mid grey ballast and ash with frequent brick fragments (091) above which was 0.88m thick greyish brown clayey silt (090). An overlying deposit of 0.73m thick brown clayey silt (092) was topped by the 0.2m thick granite chippings surface (088).

***Trial Pit 03DRTP08 (Fig 6, Section 23)***

This pit, located at the edge of the maintenance yard for dock vehicles, revealed a 2.3m thickness of mid brown clay (087) in its base. Overlying this was 1.4m thick mid grey clayey silt (095) which was overlain by the 0.3m thick loose limestone yard surface (094) above which was 0.2m thick dark grey clayey silt topsoil (094)

***Trial Pit 03WDTP04 (Fig 6, Section 24)***

The lower 1m of this trial pit comprised brown and light grey silty sand redeposited natural (098). This was overlain by a 0.4m thick made ground deposit comprising mid brown sand and tarmac (097). The 0.4m thick yellow grey stone and concrete surface overlay this (096).

***Trial Pit 03WDTP05 (Fig 6, Section 25)***

This trial pit was dug to a depth of 5.1m, the lower 0.55m of which comprised light yellow brown silt sand (105). This was overlain by 0.25m thick light to mid grey brown silty sand (104) above which was 0.24m thick dark brown/black organic silt/sand (103) from which a wooden probable suspension pole (Appendix 2) was retrieved. A 1.95m thick layer of dirty redeposited natural clay, sand and gravel (102) was overlain by 0.45m thick light brown organic silt (101). An overlying 1.1m thick made ground layer of mid yellowish brown clay (100) mixed with brick and tarmac supported an up to 0.6m thickness of tarmac surface (099).

***Boreholes***

WYG Environmental also drilled a number of boreholes across the site. These were

not monitored by APS staff. However, WYG subsequently provided copies of the borehole logs. These indicated that in several boreholes, a peat deposit was encountered at a depth of between -1.5m and -3m OD. These boreholes are shown in brown on Figure 3. The depths closely match the levels of peat in previous boreholes either side of the river shown in green on Figure 3.

**6. DISCUSSION**

The earliest deposit observed during the monitoring was a mid to dark grey clay with frequent chalk fragments and flints, at a depth of 9.5m, below the dock wall, in rotary cores LKRC01 and 03. This is natural boulder clay.

A thin peat layer was revealed at approximately -1.5m to -3m OD in several boreholes. These levels closely match those of peats revealed in boreholes undertaken in 2010. Radiocarbon dating of the peats from the 2010 investigation showed them to be part of a horizon comprising vegetation growing on the Middle Neolithic land surface of 3300-2900 BC (Taylor 2011). On the south bank of the river the figures were very closely comparable. The top of the peat was at -2.57m OD in borehole 03RBWS14 and at -2.7m OD in borehole 03RBWS17, either side of the -2.65m in the 2010 borehole. On the docks themselves, the levels were slightly higher than the -2m OD in the 2010 borehole, with -1.72m OD in 03WDBH09a and -1.92m OD in borehole 03WDBH08. The presently identified deep peats are almost certainly an extension to the Middle Neolithic land surface previously identified.

In the trial pits themselves, there was a great depth of modern overburden, comprising made ground for the docks. Several of the trial pits were excavated to establish the position of the iron tie rods between the dock walls (Plate 2). Only a

few of the trial pits were deep enough to encounter the underlying fluvial silts, such as at 4.5m depth in 03WDTP05.

In several pits along the line of the proposed dock road, 03DRTP02-06, a hard yellow limestone surface halted machining at a depth of between 2.5 and 3.1m. This was remembered as an area of sunken workshops by a docks vehicle mechanic. Certainly the rubble backfill was of very recent date and the surface may have been a road or yard associated with the workshops.

## 7. CONCLUSION

Archaeological investigations were undertaken at the Port of Boston during geotechnical examinations as potential archaeological deposits could be disturbed.

However, the only deposit of archaeological interest was a peat in several boreholes corresponding to a peat layer revealed in a borehole survey undertaken by APS in 2010. This was interpreted as representing a Middle Neolithic land surface.

The trial pits generally revealed only a considerable depth of modern overburden. Some of them were excavated mainly to establish the position of dock wall tie rods.

Finds retrieved during the investigation comprised metal and wood objects and animal bone.

## 8. ACKNOWLEDGEMENTS

Archaeological Project Services wishes to acknowledge the assistance of Mr T Young of WYG Environmental for commissioning the fieldwork and post-excavation analysis. The work was coordinated by Gary Taylor who edited this report along with Denise Drury.

## 9. PERSONNEL

Project Coordinator: Gary Taylor  
 Site Supervisors: Chris Moulis, Mark Peachey, Fiona Walker  
 Finds processing: Denise Buckley  
 Photographic reproduction: Sue Unsworth  
 Illustration: Paul Cope-Faulkner, Mark Peachey  
 Post-excavation analysis: Paul Cope-Faulkner, Mark Peachey

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## 11. ABBREVIATIONS

APS Archaeological Project Services

BGS British Geological Survey

HTL Heritage Trust of Lincolnshire

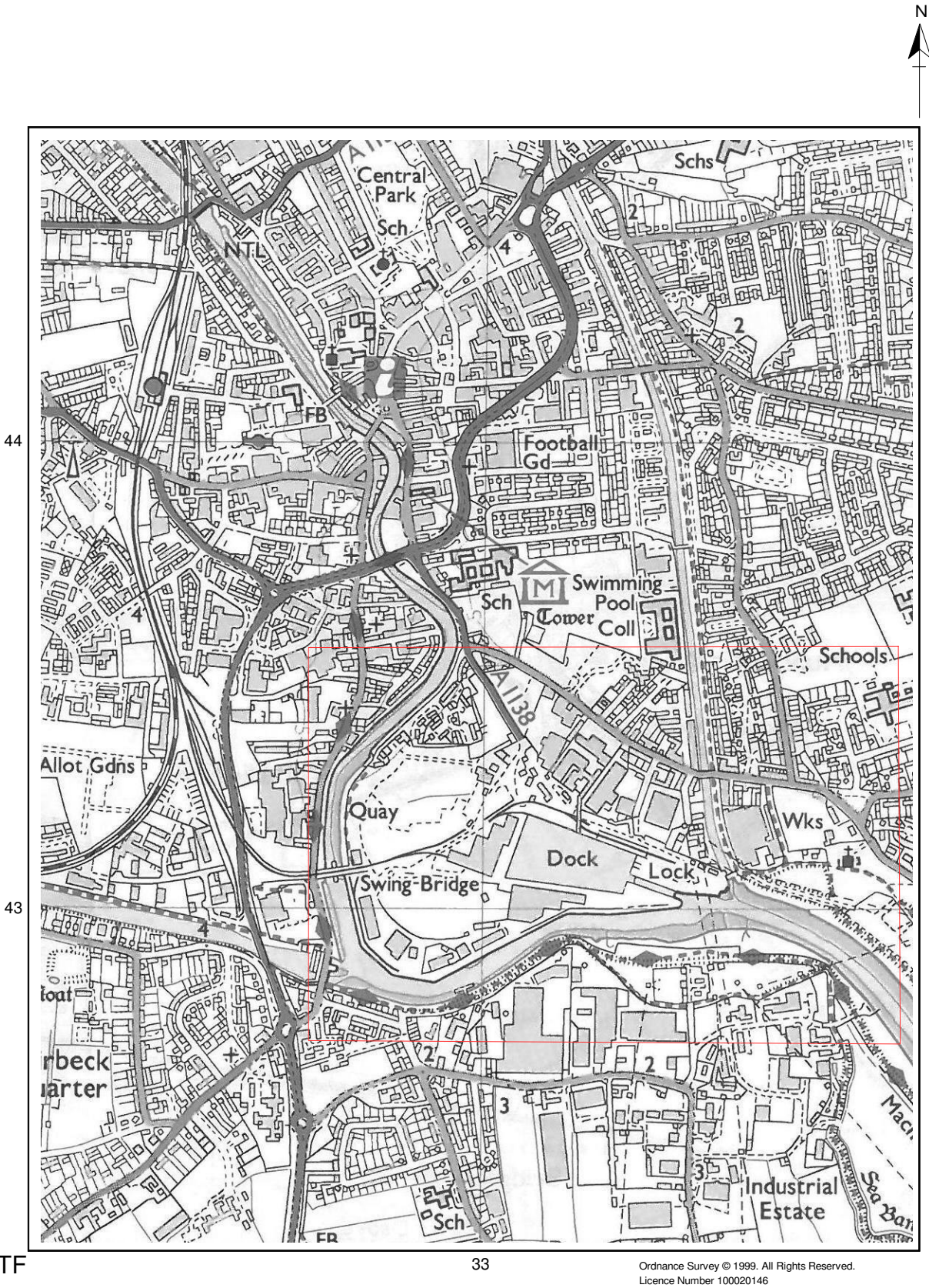







Figure 1. General location plan





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 Area shown in Figure 3




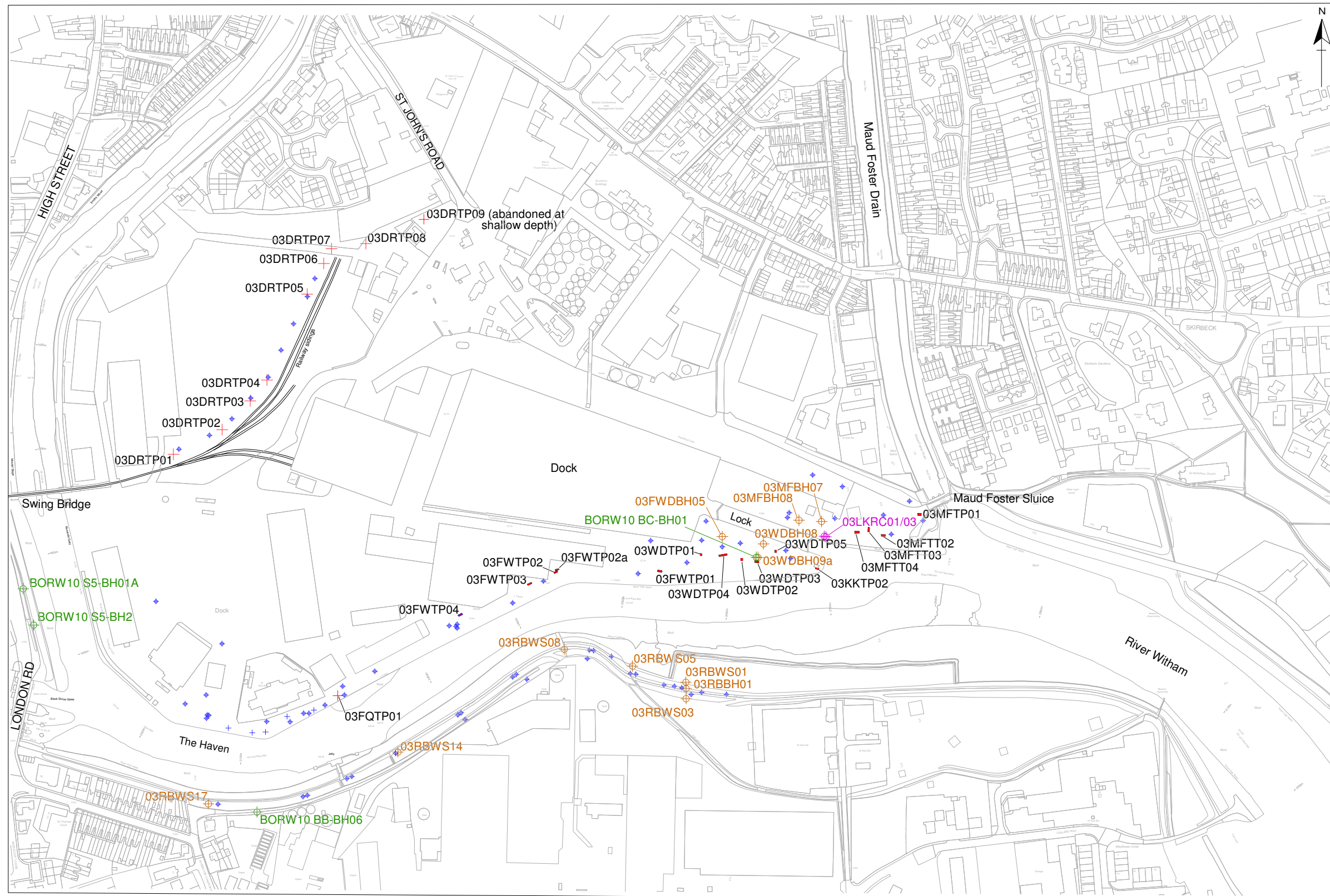
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Project Name: Boston Port BOPO 14		
Scale 1:12500	Drawn by: MJP	Report No: 132/14

Figure 2. Site location plan







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KEY	
03DRTP02	- + Trial pit
03LKR01	⊕ Rotary core
03RBWS08	⊕ Borehole revealing deep peat
	+ Other borehole
BB-BH06	⊕ BORW10 borehole revealing deep peat


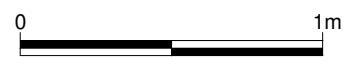
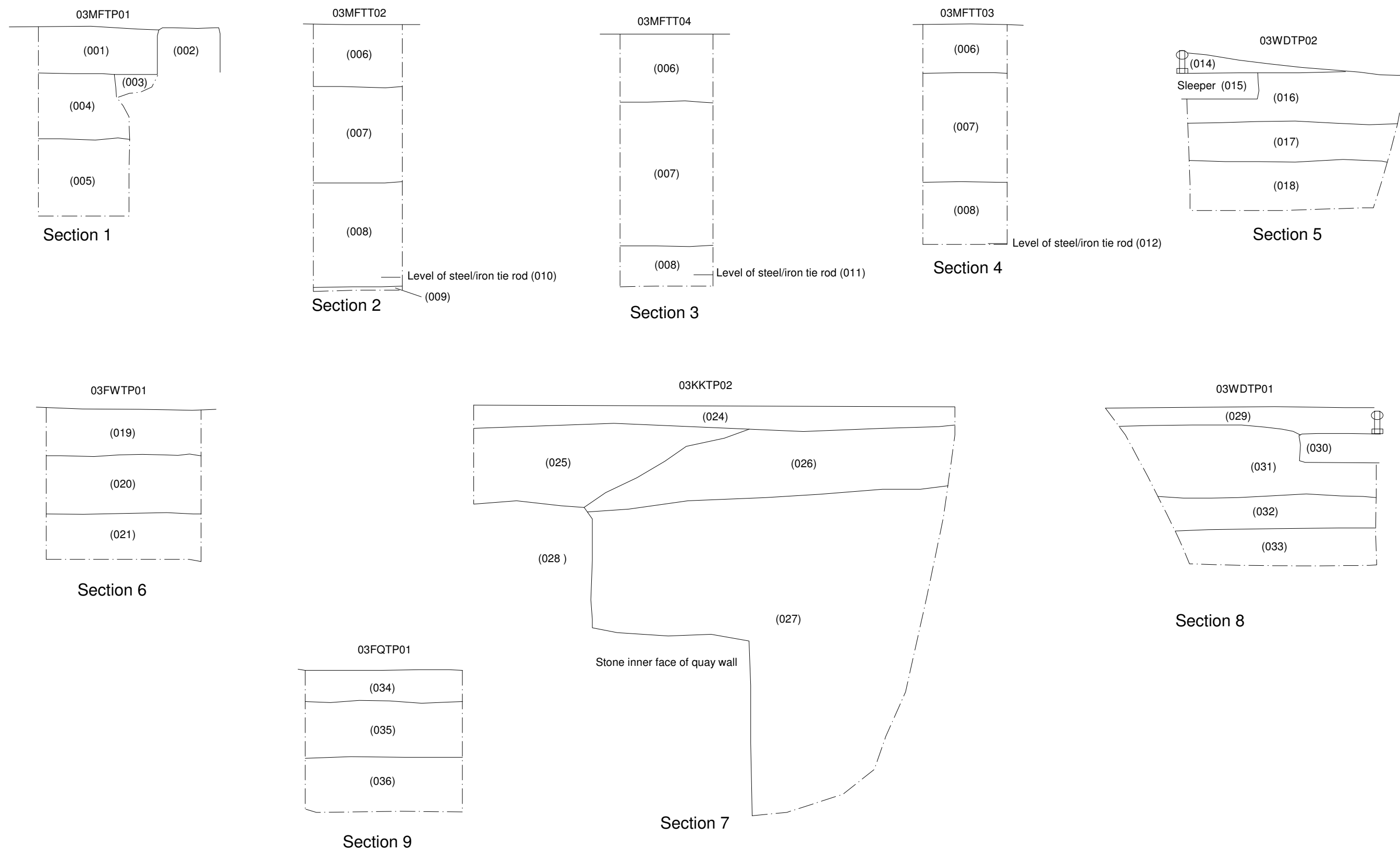
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Project Name: Boston Port BOPO 14		
Scale: 1:4000	Drawn by: MJP	Report No: 132/14



Figure 3. Plan showing the location of monitored trial pits and bore holes






 Archaeological Project Services		
Project Name: Boston Port BOPO 14		
Scale: 1:25	Drawn by: PCF/MJP	Report No: 132/14

Figure 4. Sections 1-9



03LKRC01

Top  
1.4m  
Not  
seen

(037)

(038)

Section 10

03LKRC03

(039)

(043)

Section 11



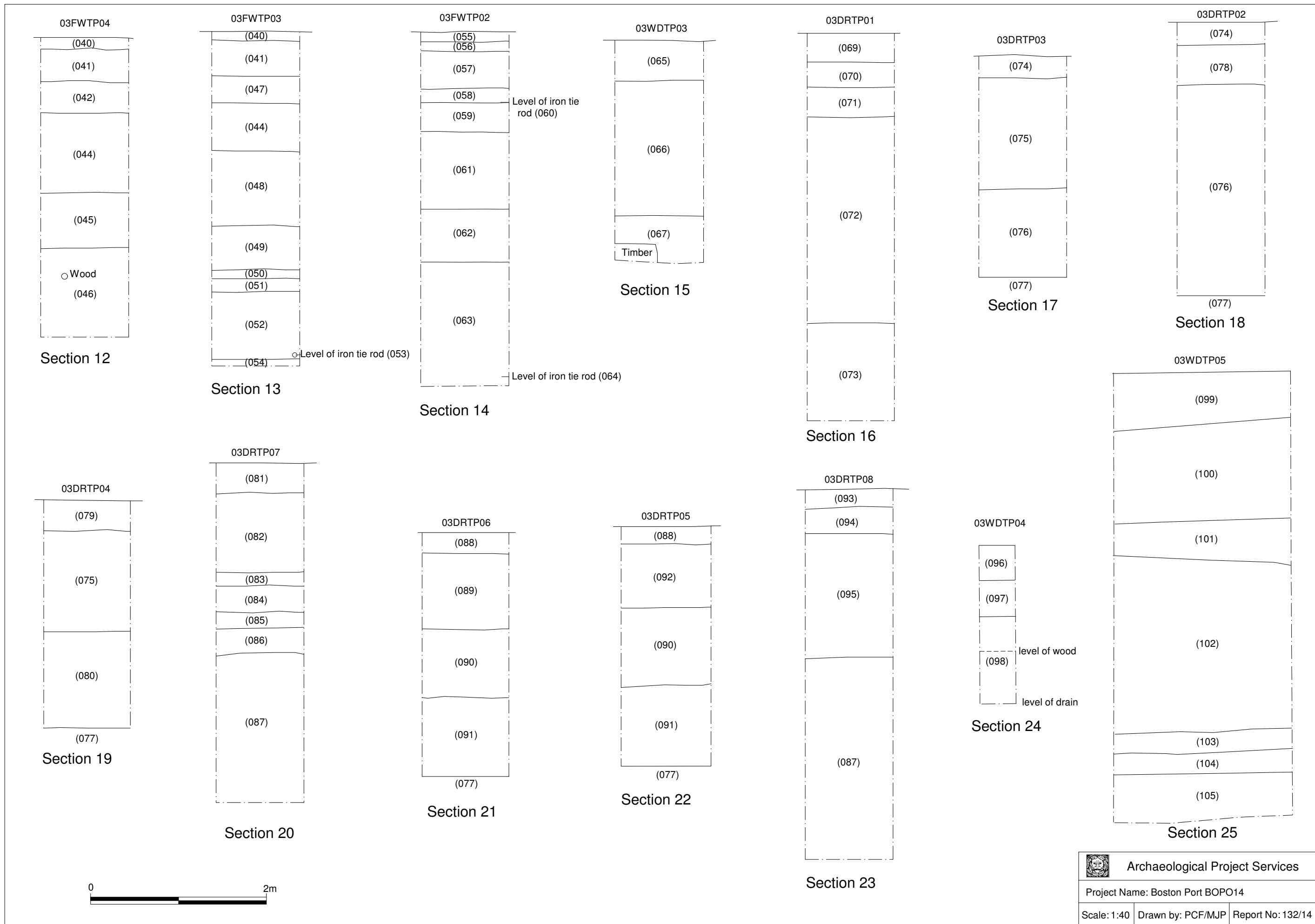
Archaeological Project Services

Project Name: Boston Port BOPO 14

Scale 1:75 | Drawn by: PCF/MJP | Report No:132/14

Figure 5. Sections 10, 11






 <b>Archaeological Project Services</b>		
Project Name: Boston Port BOPO14		
Scale: 1:40	Drawn by: PCF/MJP	Report No: 132/14

Figure 6. Sections 12-25





Plate 1. Excavating trial pit 03KKTP02 looking east along River Witham



Plate 2. Exposing iron tie rod (011) in shored trial pit 03MFTT04



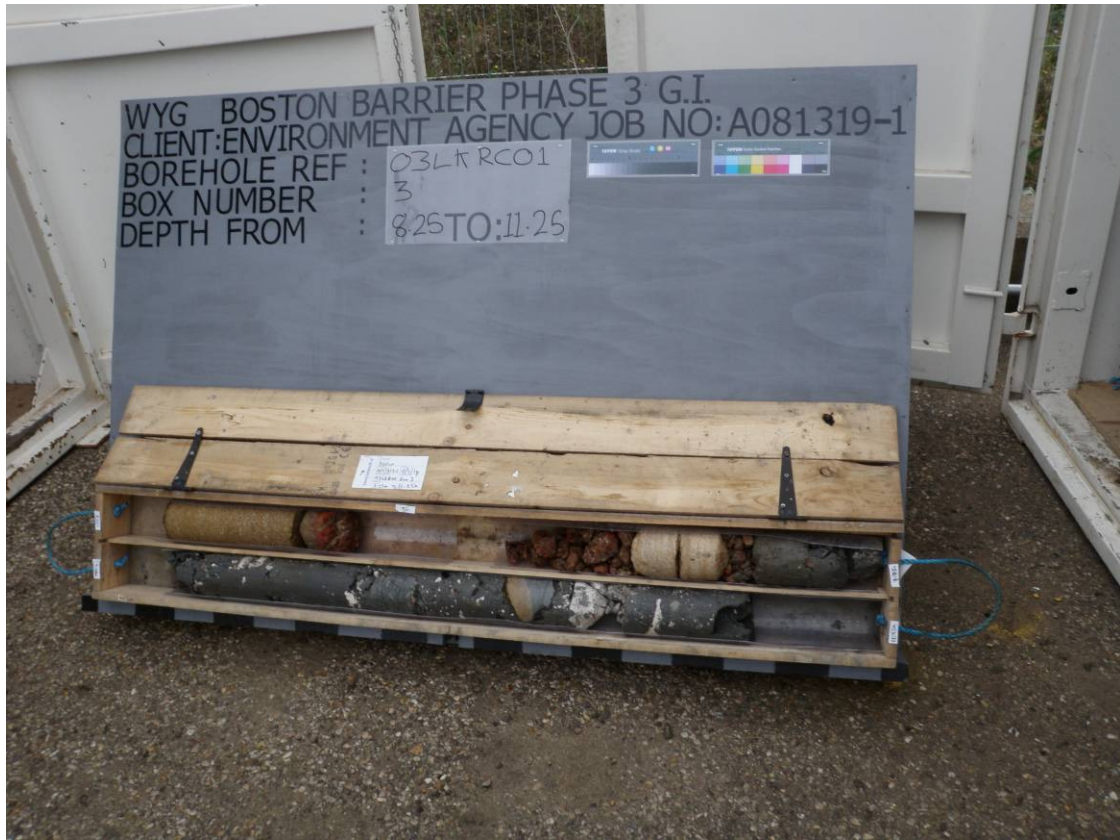


Plate 3. 03LKRC01 core showing transition from dock wall to boulder clay at 9.5m



Plate 4. Trial pit 03FWTP02, Section 14, looking east





Plate 5. Trial pit 03DRTP02, Section 17, showing hard surface (077) at base, looking east



Plate 6. Excavating trial pit 03DRTP04 on line of proposed new road, looking northeast



## Appendix 1

### CONTEXT DESCRIPTIONS

No.	TP/BH	Description	Interpretation
001	03MFTP 01	Crushed limestone 0.3m thick	Surface
002		Concrete	Riverside wall
003		Modern disturbance	Made ground
004		Firm mixed dark grey and brown silt and sand, 0.4m thick	Dumped deposit
005		Firm mixed mid brown and grey silt, >0.5m thick	Dumped deposit
006	03MFTT 02-04	Indurated black tarmac, 0.4m thick	Surface
007		Compacted light brown to white crushed limestone, 0.6m thick	Make-up for tarmac
008		Firm mid brown sandy silt and cobbles, 0.65m thick	Dumped deposit
009	03MFTT 02	Firm mid bluish grey clay	Dumped deposit
010		Iron tie rod	Tie between quay walls
011	03MFTT 04	Iron tie rod	Tie between quay walls
012	03MFTT 03	Iron tie rod	Tie between quay walls
013		Concrete block	Anchor for (012)
014	03WDTP 02	Firm light brown to white limestone fragments, 0.3m thick	Surface
015		Iron rails and wooden sleepers	Railway
016		Firm light brown to white crushed limestone, 0.3m thick	Ballast for (015)
017		Firm dark grey/black rubble in sandy silt, 0.24m thick	Dumped deposit
018		Firm to plastic mid brown clayey silt, >0.3m thick	Dumped deposit
019	03FWTP 01	Hard light brown to white limestone, 0.3m thick	Surface
020		Soft dark brownish grey silt and black cinders, 0.35m thick	Dumped deposit
021		Firm dark bluish grey clayey silt, >0.3m thick	Dumped deposit
022		Iron tie rod	Tie between quay walls
023		Iron tie rod	Tie between quay walls
024	03KKTP 02	Tarmac	Surface
025		Loose light brownish grey rubble, 0.5m thick	Dumped deposit
026		Loose dark grey silt, gravel and cinders, 0.5m thick	Dumped deposit
027		Soft mid greyish brown silt with timber fragments, >2m thick	Dumped deposit
028		Stone and brisk structure, >2.6m high by 2.1m wide	Quayside wall
029	03WDTP 01	Tarmac, 0.1m thick	Surface
030		Iron rails and concrete sleeper	Railway
031		Hard light brown to white limestone fragments, 0.48m thick	Ballast for (030)
032		Soft dark brownish grey to black silt, cinders and brick/tile fragments, 0.2m thick	Dumped deposit

No.	TP/BH	Description	Interpretation
033		Firm to plastic mid brown clayey silt, >0.22m thick	Dumped deposit
034	03FQTP 01	Soft mid greyish brown silty sand with frequent gravel, 0.2m thick	Topsoil
035		Loose dark to mid grey cinders and gravel ballast, 0.36m thick	Dumped deposit
036		Soft light brown sandy silt, >0.34m thick	Dumped deposit
037	03LKRC 01	Concrete and brick structure	Quayside wall
038		Stiff mid grey clay with frequent chalk fragments and flints	Natural boulder clay
039	03LKRC03	Brick, cement and stone structure	Quayside wall
040	03FWTP03/04	Tarmac, 0.15m thick	Surface
041		Crushed limestone fragments, 0.4m thick	Make-up for (040)
042	03FWTP04	Soft to loose dark brown ashy silt and bottles	Dumped deposit
043	03LKRC03	Stiff mid to dark grey clay with frequent chalk fragments	Natural boulder clay
044	03FWTP03/04	Soft light brown sandy silt	Dumped deposit
045	03FWTP04	Firm mixed light grey and mid to dark grey sandy silt, clayey silt and sand	Dumped deposit
046		Soft dark greyish brown silty sand, >1m thick	Dumped deposit
047	03FWTP 03	Firm dark grey ashy clay, 0.3m thick	Dumped deposit
048		Soft to loose dark grey sandy silt, 0.55m thick	Dumped deposit
049		Soft light brown sandy silt, 0.5m thick	Dumped deposit
050		Soft light brown sandy silt and red brick fragments, 0.1m thick	Dumped deposit
051		Loose black ash, 0.15m thick	Dumped deposit
052		Firm mid brownish grey silt and sandy silt, 0.75m thick	Dumped deposit
053		Iron tie rod	Tie between quay walls
054		Soft light brownish grey sandy silt, >0.1m thick	Dumped deposit
055	03FWTP 02	Tarmac, 0.1m thick	Surface
056		Firm light brown to white crushed limestone fragments, 0.1m thick	Make-up for (055)
057		Compacted mid grey stone fragments, 0.42m thick	Dumped deposit
058		Loose dark grey/black grit and ash, 0.18m thick	Dumped deposit
059		Firm light brown with light brownish grey silt	Dumped deposit
060		Iron tie rod	Tie between quay walls
061		Soft mid brown clayey silt, 0.88m thick	Dumped deposit
062		Firm mid brown with mid grey clayey silt, 0.6m thick	Dumped deposit
063		Soft mid grey sandy silt with organic material, 1.4m thick	Dumped deposit
064		Iron tie rod	Tie between quay walls
065	03 WD TP 03	Firm dark grey tarmac, 0.45m thick	Surface
066		Compacted mid brown sand, 1.55m thick	Dumped deposit

No.	TP/BH	Description	Interpretation
067		Soft mid to dark grey sandy silt, occasional squared timber fragments, >0.5m thick	Dumped deposit
068	03FWBH 01	Loose dark grey gravel (9m depth)	Fluvial gravels
069	03DRTP01	Compacted mid yellow crushed limestone, 0.27m thick	Base for tarmac surface
070		Firm dark red crushed brick, 0.28m thick	Make-up
071		Firm black tarmac, 0.35m thick	Former surface
072		Stiff mid brown clay with yellow clayey silt, 2.35m thick	Dumped deposit
073		Stiff dark brown clay, >1.1m thick	Dumped deposit
074	03DTRP 03/02	Loose rubble, 0.25m thick	Surface
075	03DTRP 03/04	Loose mottled mid yellow and grey clay with recent rubble, 1.25m thick	Dumped deposit
076	03DTRP 03/02	Loose dark greyish brown silty sand, up to 2.4m thick	Dumped deposit
077	03DTRP 03/04/ 05/06	Hard light yellow limestone fragments	?road
078	03DTRP 02	Loose dark greyish brown clayey silt, 0.45m thick	Made ground
079	03DTRP 04	Loose mid to dark grey clayey silt with frequent gravel and brick/tile fragments, 0.35m thick	Yard surface?
080		Firm dark brown clay with concrete fragments, 1.1m thick	Dumped deposit
081	03DTRP07	Loose mid yellow crushed limestone, 0.35m thick	Surface
082		Firm mid greyish brown clay and rubble, 0.9m thick	Dumped deposit
083		Loose mid yellowish brown gravel, 0.15m thick	Former track surface
084		Friable dark brown clayey silt, 0.3m thick	Made ground
085		Loose dark grey/black brick fragments and clinker, 0.2m thick	Made ground/earlier version of trackway
086		Loose mid grey and dark red concrete and brick rubble, 0.28m thick	Dumped deposit
087	03DTRP 07/08	Stiff mid brown clay, >2.3m thick	Dumped clay-not natural according to WYG
088	03DTRP 05/06	Loose mid pinkish grey granite chippings, 0.25m thick	Surface
089	03DTRP 06	Friable mid brown clayey silt, 0.86m thick	Dumped deposit
090	03DTRP 05/06	Friable mid greyish brown clayey silt, 0.88m thick	Dumped deposit
091		Loose mid grey ballast and ash with frequent brick fragments, 0.9m thick	Dumped deposit
092	03DTRP 05	Friable mid greyish brown clayey silt with frequent brick and coal fragments, 0.7m thick	Dumped deposit
093	03DTRP08	Loose dark grey clayey silt, 0.2m thick	Topsoil
094		Loose light yellow limestone fragments, 0.3m thick	Yard surface
095		Loose mid grey clayey silt with frequent brick fragments, 1.4m thick	Dumped deposit
096	03WDTP04	Firm light yellow grey stone and concrete, 0.4m thick	Made ground for pier quay /yard

<b>No.</b>	<b>TP/BH</b>	<b>Description</b>	<b>Interpretation</b>
097		Firm mix of mid brown sand and tarmac with occasional bricks, 0.4m thick	Made ground
098		Moderately firm mix of mid yellow brown and light grey silty sand with some clay, seen to about 1m thickness	Redeposited natural
099		Firm black tarmac, 0.6m thick	Hardstanding
100		Firm light to mid yellowish brown clay with some brick and tarmac, 1.1 thick	Made ground
101	03WDTP05	Friable dark grey/light brown organic silt with shell frags, 0.45m thick	Redeposited silt
102		Firm mid brown yellow sand with angular pebbles and small rounded clay patches, 1.95m thick	Dirty redeposited natural clay
103		Friable dark brown/black organic silt/sand, 0.24m thick	Organic band
104	03WDTP05	Soft light to mid grey brown silty sand with rare pebbles and occasional brick frags, 0.25m thick	Subsoil
105		Friable light yellow brown silt sand, 0.55m thick	Flood deposit



## Appendix 2

### THE FINDS

#### FAUNAL REMAINS

*By Paul Cope-Faulkner*

##### Introduction

A single fragment of animal bone was recovered from a layer of gravel (068).

##### Methodology

The bone was laid out in context order and reference made to published catalogues (e.g. Schmid 1972; Hillson 2003). All the animal remains were counted and weighed, and where possible identified to species, element and side. Also fusion data, butchery marks, gnawing, burning and pathological changes were noted when present. Ribs and vertebrae were only recorded to species when they were substantially complete and could accurately be identified. Undiagnostic bones were recorded as micro (mouse size), small (rabbit size), medium (sheep size) or large (cattle size).

The condition of the bone was graded using the criteria stipulated by Lyman (1996), Grade 0 being the best preserved bone and Grade 5 indicating that the bone had suffered such structural and attritional damage as to make it unrecognisable.

##### Condition

The overall condition of the bone was good, averaging at grade 2 on the Lyman Criteria (1996).

##### Results

*Table 1, Fragments Identified to Taxa*

Cxt	Taxon	Element	Side	Number	W (g)	Comments
068	Large mammal	vertebra	-	1	38	

##### Provenance

The bone was recovered, at a depth of 9m, from borehole 03FWBH01.

##### Summary

As a single bone, it has little potential.

#### OTHER FINDS

*By Gary Taylor and Denise Buckley*

##### Introduction

Two other finds weighing a total of 945g were recovered.

##### Condition

Although broken, the iron item is in fairly good condition.

##### Results

*Table 2, Other Materials*

Cxt	Material	Description	NoF	W (g)	Date
047	Iron	Curved piece, shaped like a mattock head with a suspension loop at the top. It looks like two side arms have broken off beneath the loop. Possibly a drag anchor?	1	871	
103	Wood	Y-shaped probable suspension pole. De-barked and a central twig removed	1	74	

**Provenance**

The other finds were recovered from dumped deposit (047) in trial pit 03FWTP03 and silt layer (103) in trial pit 03WDTP05.

**Range**

The other finds include a possible pivoting tooth from a drag anchor made from iron. The other item is a possible suspension pole. This is made from a natural tree limb with two branches springing from it to form a Y-shape. Between the two springing branches is the scar of another, removed, branch. The item has had the bark removed and been smoothed.

**Potential**

The other finds are of limited potential but probably relate to riverside and harbour activities, perhaps boating and fishing.

**SPOT DATING**

The dating in Table 3 is based on the evidence provided by the finds detailed above.

*Table 3, Spot dates*

<b>Cxt</b>	<b>Date</b>	<b>Comments</b>
047	post-medieval	based on 1 metal
068	undated	
103	undated	

**ABBREVIATIONS**

CXT	Context
NoF	Number of Fragments
W (g)	Weight (grams)

**REFERENCES**

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- Hillson, S, 2003 *Mammal Bones and Teeth. An introductory guide to methods of identification* (London)
- Lyman, RL, 1996 *Vertebrate Taphonomy*, Cambridge Manuals in Archaeology (Cambridge)
- Schmid, E, 1972 *Atlas of Animal Bones for Prehistorians, Archaeologists and Quaternary Geologists* (Amsterdam, London, New York: Elsevier)

## Appendix 3

### GLOSSARY

<b>Alluvium</b>	Deposits laid down by water. Marine alluvium is deposited by the sea, and fresh water alluvium is laid down by rivers and in lakes.
<b>Anglo-Saxon</b>	Pertaining to the period when Britain was occupied by peoples from northern Germany, Denmark and adjacent areas. The period dates from approximately AD 450-1066.
<b>Bronze Age</b>	A period characterised by the introduction of bronze into the country for tools, between 2250 and 800 BC.
<b>Context</b>	An archaeological context represents a distinct archaeological event or process. For example, the action of digging a pit creates a context (the cut) as does the process of its subsequent backfill (the fill). Each context encountered during an archaeological investigation is allocated a unique number by the archaeologist and a record sheet detailing the description and interpretation of the context (the context sheet) is created and placed in the site archive. Context numbers are identified within the report text by brackets, <i>e.g.</i> [004].
<b>Cut</b>	A cut refers to the physical action of digging a posthole, pit, ditch, foundation trench, <i>etc.</i> Once the fills of these features are removed during an archaeological investigation the original 'cut' is therefore exposed and subsequently recorded.
<b>Domesday Survey</b>	A survey of property ownership in England compiled on the instruction of William I for taxation purposes in 1086 AD.
<b>Fill</b>	Once a feature has been dug it begins to silt up (either slowly or rapidly) or it can be back-filled manually. The soil(s) that become contained by the 'cut' are referred to as its fill(s).
<b>Iron Age</b>	A period characterised by the introduction of Iron into the country for tools, between 800 BC and AD 50.
<b>Layer</b>	A layer is an accumulation of soil or other material that is not contained within a cut
<b>Medieval</b>	The Middle Ages, dating from approximately AD 1066-1500.
<b>Mesolithic</b>	The 'Middle Stone Age' period, part of the prehistoric era, dating from approximately 11000 - 4500 BC.
<b>Natural</b>	Undisturbed deposit(s) of soil or rock which have accumulated without the influence of human activity
<b>Neolithic</b>	The 'New Stone Age' period, part of the prehistoric era, dating from approximately 4500 - 2250 BC.
<b>Norman</b>	Architectural style current in the 11 <sup>th</sup> -12 <sup>th</sup> centuries. Also known as Romanesque.
<b>Old English</b>	The language used by the Saxon ( <i>q.v.</i> ) occupants of Britain.
<b>Post hole</b>	The hole cut to take a timber post, usually in an upright position. The hole may have been dug larger than the post and contain soil or stones to support the post. Alternatively, the posthole may have been formed through the process of driving the post into the ground.
<b>Post-medieval</b>	The period following the Middle Ages, dating from approximately AD 1500-1800.

<b>Prehistoric</b>	The period of human history prior to the introduction of writing. In Britain the prehistoric period lasts from the first evidence of human occupation about 500,000 BC, until the Roman invasion in the middle of the 1st century AD.
<b>Redeposited</b>	An artefact that is redeposited is one that has been removed in the past from its original place of deposition. Redeposition can introduce earlier artefacts into later deposits, ie. medieval or post-medieval ditch or pit digging may have invaded Roman levels, bringing Roman artefacts to the surface. When the medieval/post-medieval features are infilled the Roman artefacts become incorporated with those deposits; these Roman artefacts are said to be redeposited. If the age differences within an assemblage are not great it is sometimes difficult to determine if an artefact is redeposited or residual ( <i>q.v.</i> ).
<b>Residual</b>	Artefacts that are noticeably earlier than others in an assemblage are often described as residual. Residual artefacts may be ones that were used for a very long time, or items that were maintained as heirlooms/antiques. If the dates of artefacts within a group do not exhibit major differences it can be difficult to determine if an artefact is residual or redeposited ( <i>q.v.</i> )
<b>Ridge and Furrow</b>	The remains of arable cultivation consisting of raised rounded strips separated by furrows. It is characteristic of open field agriculture.
<b>Romano-British</b>	Pertaining to the period dating from AD 43-410 when the Romans occupied Britain.
<b>Saxon</b>	Pertaining to the period dating from AD 410-1066 when England was largely settled by tribes from northern Germany, Denmark and adjacent areas.
<b>Saxo-Norman</b>	Pertaining to the period either side of the Norman Conquest of 1066, dating from about 1000-1100 AD.
<b>Till</b>	A deposit formed after the retreat of a glacier. Also known as boulder clay, this material is generally unsorted and can comprise of rock flour to boulders to rocks of quite substantial size.
<b>Unstratified</b>	Not related to definable layers ( <i>strata</i> ).
<b>Victorian</b>	Pertaining to the period of Queen Victoria's reign, dating from 1837-1901.

## Appendix 4

### THE ARCHIVE

The archive consists of:

6	Context register sheets
105	Context record sheets
1	Section record sheet
22	Daily record sheets
6	Photographic record sheets
13	Sheet of scale drawings
1	Bag of finds

All primary records and finds are currently kept at:

Archaeological Project Services  
The Old School  
Cameron Street  
Heckington  
Sleaford  
Lincolnshire  
NG34 9RW

The ultimate destination of the project archive is:

The Collection  
Art and Archaeology in Lincolnshire  
Danes Terrace  
Lincoln  
LN2 1LP

Accession Number:	LCNCC: 2014.174
Archaeological Project Services Site Code:	BOPO 14
OASIS record number	archaeo11-197107

The discussion and comments provided in this report are based on the archaeology revealed during the site investigations. Other archaeological finds and features may exist on the development site but away from the areas exposed during the course of this fieldwork. *Archaeological Project Services* cannot confirm that those areas unexposed are free from archaeology nor that any archaeology present there is of a similar character to that revealed during the current investigation.

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## Printable version

**OASIS ID: archaeol1-197107**

### Project details

Project name	Archaeological monitoring and recording at the Port of Boston, Boston, Lincolnshire
Short description of the project	Monitoring and recording of twenty-five geotechnical test pits in advance of construction of a flood barrier and associated service road revealed several metres of modern made-ground overlying fluvial silts. The contractor also supplied profiles of boreholes some of which revealed deep peat deposits.
Project dates	Start: 08-09-2014 End: 30-10-2014
Previous/future work	Yes / No
Any associated project reference codes	BOPO14 - Sitecode
Any associated project reference codes	2014.174 - Museum accession ID
Type of project	Recording project
Current Land use	Transport and Utilities 2 - Other transport infrastructure
Monument type	NONE None
Significant Finds	METAL Post Medieval
Significant Finds	NONE None
Investigation type	""Watching Brief""
Prompt	Environmental (unspecified schedule)

### Project location

Country	England
Site location	LINCOLNSHIRE BOSTON BOSTON Port of Boston
Postcode	PE21 6BJ
Study area	10000 Square metres
Site coordinates	TF 333 431 52.9683334253994 -0.014870302217 52 58 06 N 000 00 53 W Point
Height OD / Depth	Min: 0m Max: 0m

**Project creators**

Name of Organisation	Archaeological Project Services
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	Gary Taylor
Project director/manager	Gary Taylor
Project supervisor	Chris Moulis, Mark Peachey
Project supervisor	Fiona Walker
Type of sponsor/funding body	Environment Agency
Name of sponsor/funding body	WYG Environmental

**Project archives**

Physical Archive recipient	The Collection
Physical Archive ID	LCNCC:2014.174
Physical Contents	"Animal Bones","Metal","Wood"
Digital Archive recipient	The Collection
Digital Archive ID	LCNCC:2014.174
Digital Contents	"Animal Bones","Metal","Wood"
Digital Media available	"Images raster / digital photography","Text"
Paper Archive recipient	The Collection
Paper Archive ID	LCNCC:2014.174
Paper Contents	"Animal Bones","Metal","Wood"
Paper Media available	"Context sheet","Drawing","Photograph","Report","Section"

**Project bibliography 1**

Publication type	Grey literature (unpublished document/manuscript)
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