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Engineering Archaeological Services Ltd.

Minffordd Yard
Archaeological Evaluation

I.P. Brooks

EAS Client report 2018/10

Minffordd Yard
Archaeological Evaluation

Project Commissioned
by
Ffestiniog and Welsh Highland Railways

Fieldwork
by
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Minffordd Yard, Archaeological Evaluation

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Introduction

Grid Reference: **SH 59672 38574**

Location (Figures 1 and 2)

It is intended to construct a new shed at the southern end of the Minffordd Yard to include the area now occupied by a temporary poly-tunnel. The evaluation trench was located in front of the poly-tunnel and to the east of the tracks which enter the poly-tunnel. This was the only available space, within the proposed footprint of the development, large enough to place the trench in its preferred orientation so that it would give the maximum chance of locating any archaeological features.

Background

Engineering Archaeological Services Ltd were commissioned by the Ffestiniog and Welsh Highland Railways to carry out an archaeological evaluation of the proposed site of a new engine shed at the southern end of the Minffordd Yard. Although now largely used as the base for the Infrastructure Department, this yard held extensive slate wharves and exchange sidings with the Cambrian Railways for the transfer of slate from the various slate companies. The yard was established in 1872, having originally been land from the Huddart Family estate. The Festiniog Rail Co. eventually bought the land, for £2500, in mid-1876. (https://www.festipedia.org.uk/wiki/Minffordd_Yard#cite_note-1).

Summary

A wooden structure was located in the north western corner of the trench. This consisted of two longitudinal timbers on which planks were nailed to produce a rough platform approximately 1.3 m long and 1.0 m wide running at right angles to the expected axis of the yard. The wooden platform also relates to a feature running with the axis of the yard at the western end of the trench. Both the wooden platform and the western feature are cut into the top of a deep deposit of slate waste which is assumed to be a levelling deposit for the yard.

Methodology

The trench was laid out in the available space within the yard and within the area of the proposed building. It was designed to cross the axis of the yard so that any surviving wharves would cross the trench. An initial trench 10 x 2 m in size was excavated, largely with a mechanical excavator (Figure 2, Plate 1). This was then extended with an area of 1.5 x 1.5 m attached to the north western corner of the trench (Figure 3, Plate 2). This extension was to explore a wooden feature seen in this corner of the original trench. After the compact yard surface in this extension was removed, by the mechanical excavator, the feature and associated contexts were cleaned by hand. Where possible the mechanical excavator used a smooth faced ditching bucket.

Whilst detailed planning took place by direct measurement, the location and general form of the trench were recorded using a Leica TS06 Total Station.

The photographs were taken with a Nikon D5300 Digital SLR Camera at a resolution of 24.2 MP with the photographs being taken in RAW (NEF) format. These photographs were converted into JPEG format for use as illustration in this report and TIFF for archiving. In addition, a series of overlapping digital photographs were taken, with a Panasonic Lumix DCM-TZ60 and processed using Agisoft Photoscan Standard V1.4.1, to produce a three-dimensional model from which the photogrammetric plans could be extracted.

Results

The top 100 – 200 mm of the trench consisted of modern yard surface made up of a series of tips of slate waste, stone and tarmac (Context 1). This covered a thick deposit of slate waste (Context 5) which reached a depth of at least 1.4 m deep, where it was sampled in the sondage at the eastern end of the trench. This deposit appears to have been designed to level the yard and is therefore probably thinner on the eastern side of the yard and thicker to the west. The slate waste within this deposit consists of largely of linear slabs, although a few large slabs were also recorded. None of the blocks were sawn and no evidence of drilled blast holes was recorded.

Cut into the top of Context 5 is a shallow, "T" shaped feature (Context 6, Figures 3, 4 and 5, Plates 1 and 2), which runs along the western end of the trench and has an extension running at right angles for 1.88 m and which is 0.7 m wide. As the main section of this feature runs parallel with the tracks in this part of the yard it is assumed that it may reflect the organisation of the yard in the past with either a wharf or rail line occupying this part of Context 6. In general Context 6 is filled with a very compact, yellowish brown clayey silt which is distinct from the general yard make up (Context 6) and the recent resurfacing (Context 1). Sitting on top of Context 2 are three slate slabs, possibly suggesting this area was originally surfaced with slate slabs. This layer also runs below a wooden structure which occupies the "T" extension of Context 6.

This wooden structure (Figure 4, Plate 2) consists of two wooden "rails" (Context 4) running at right angles to the general axis of the yard. These are running parallel at a distance of 0.37 m from each other. The northern rail was a barely modified log whilst the southern "rail" appears to have been a timber with a rectangular cross section. Nailed to the top of the "rails" are at least two, and possibly three wooden planks (Context 3). The eastern plank was 0.23 m wide, whilst the other two possible planks together are the same width. Holes in the top of the southern rails suggest there were other planks which have since been lost. The spikes used (Plates 5 and 6) area a mixture of square headed and octagonal headed, with a round shafts.

Discussion

The evaluation in the yard at Minffordd would suggest that the survival of earlier features is patchy. No evidence for extensive wharfage was recovered from the excavation, however there is a suggestion that there may be evidence under the existing tracks to the west of the trench. Associated with this possible alignment is the wooden structure which would appear to have been constructed adjacent to a possible track line and at right angle to it. The interpretation of the wooden structure is uncertain. There are some similarities to a barrow way across the rail lines, however no evidence was recovered for a set of tracks at this point. Also, there was no evidence for chairs to support any rails and the planks forming the upper surface (Context 3) were nailed into the top of the underlying wooden supports (Context 4) suggesting that they were not sleepers. Probably the most likely interpretations that the wooden structure was a platform for some sort of trackside facility.

Perhaps more surprising, is the depth of slate fill recorded. Considerable volumes of broken slate waste must have been imported onto the site in order to produce a level surface for the yard. Admittedly the trench only sampled a small part of this deposit, but no evidence for sawing or blasting was recorded from the slate blocks in this deposit.

Although patchy the current excavation would suggest that any surviving evidence for the earlier organisation of the yard (apart from the levelling fill) is only shallowly buried (by about 300 mm), just below the modern surfacing. It is therefore possible that much of the earlier organisation has already been lost.

Acknowledgments

The excavation was commissioned by Alex Spring (Infrastructure Manager) for the Ffestiniog and Welsh Highland Railways. Access and the mechanical excavator and driver were organised By Ian Harthill (Project Engineer). The project was monitored by D. Gwyn.

References

https://www.festipedia.org.uk

Plate 1: Photogrammtric Plan of Trench
Scale 1:50

Plate 2: Photogrammetric Plan of the Timber Structure
Scale 1:20

Plate 3: Remnant of slate surface on Context 2

Plate 4: Detail of the wooden structure

Plate 5: Spikes attaching the planking (Context 3) to the wooden rails (Context 4)

Plate 6: Detail of spike

Figure 1: Location
Scale 1:25,000

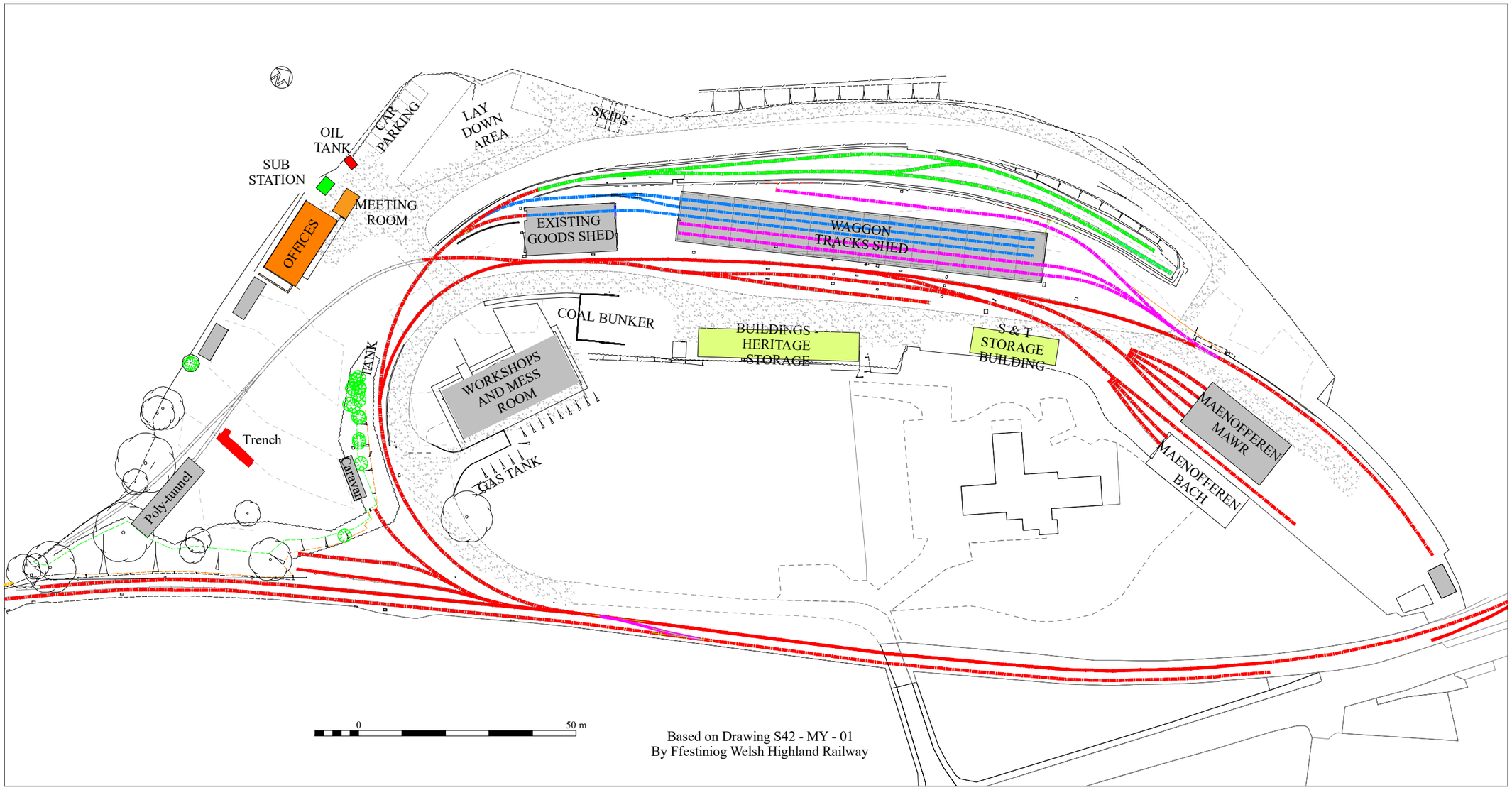

Figure 2: Location of the Trench
Scale 1:1000

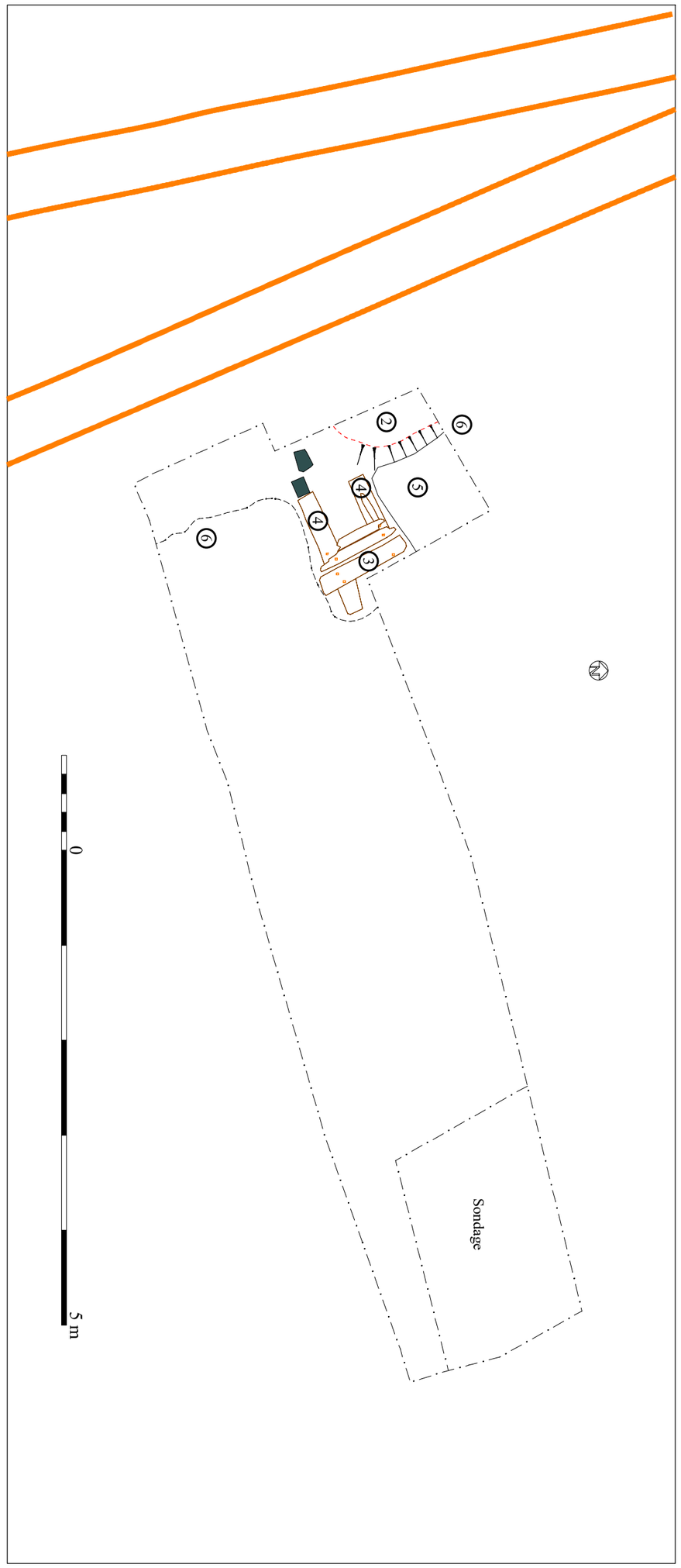

Figure 3: Trench Plan
Scale 1:50

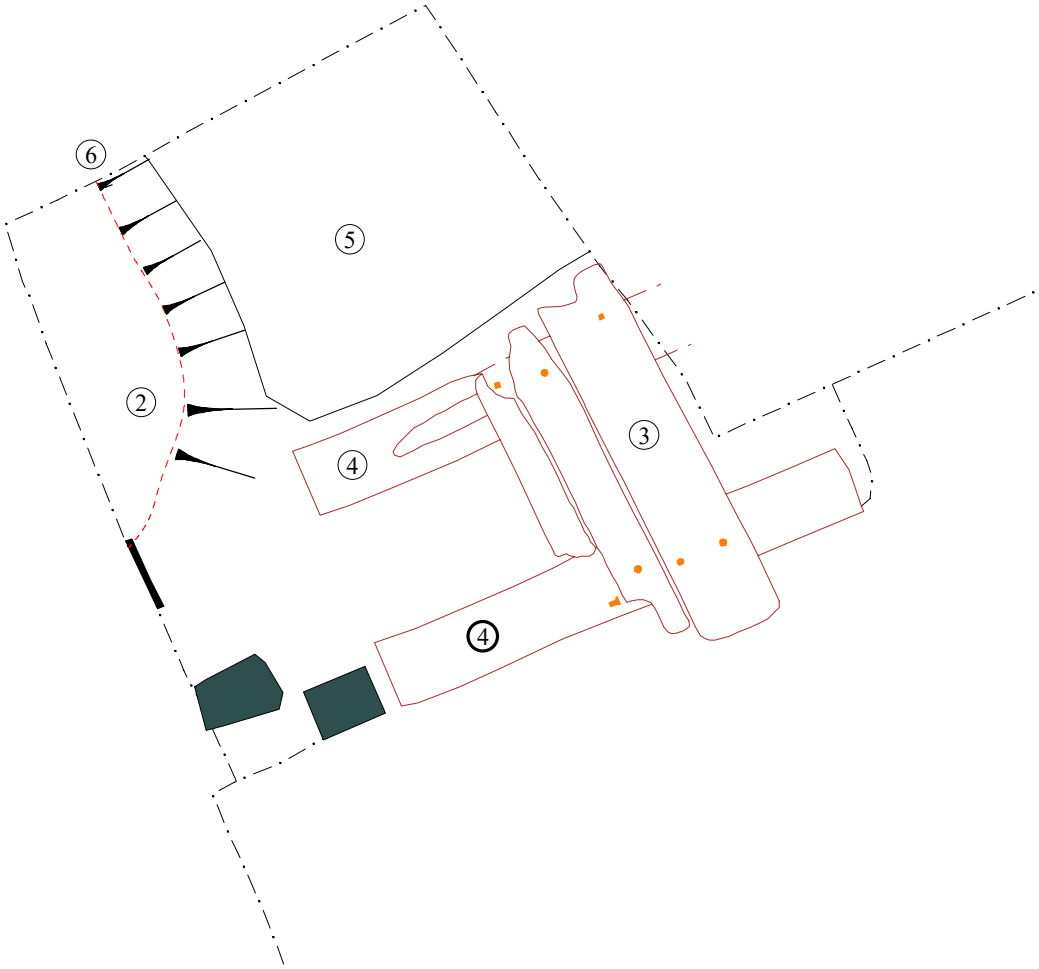

Figure 4: Detail Plan of Structure
Scale 1:20

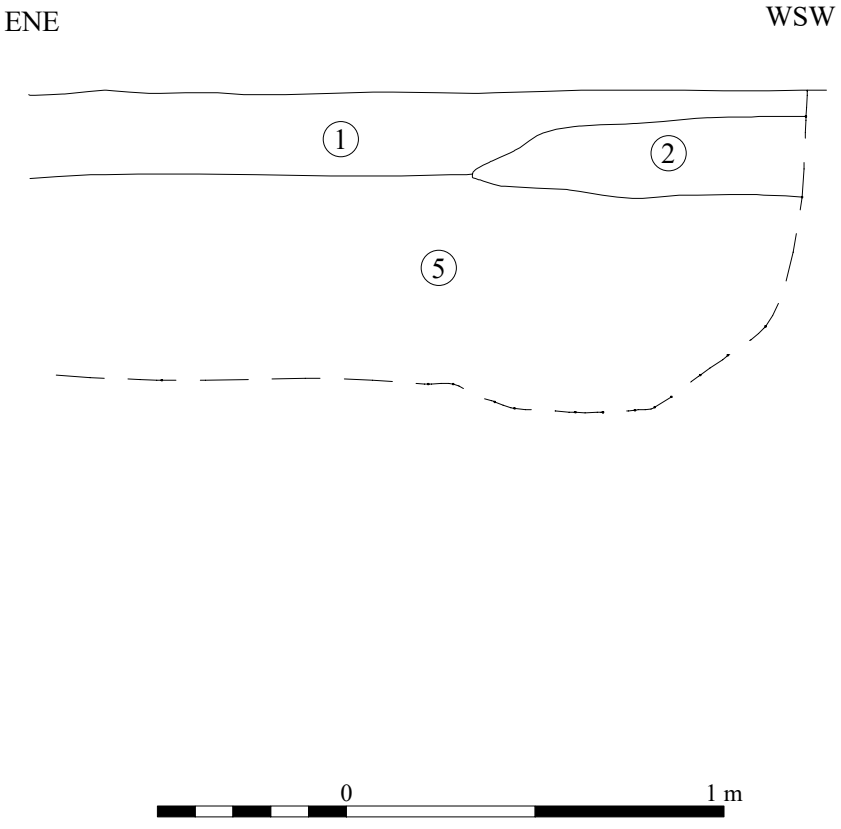

Figure 5: Section
Scale 1:20

Appendix 1: Context Summary

Context	Relationships	Description
1	Above 2, 3, 4, 5	Modern make-up. Tips of slate waste, stone gravel and tarmac forming the modern surface of the yard. Typically, 0.25 m thick this layer is well compacted and consists of a series of dumps and spreads as repair to the yard became necessary
2	Below 1 and 3 Abuts 4 Within 6 Above 5	Very well compacted, yellowish brown clayey silt with a moderate quantity of angular slate fragments up to 50 mm in size. The top surface of this layer has a few slate slabs up to 200 x 150 mm in size which are likely to be the remains of a deliberate surface. The layer forms a band along the northern edge of the excavation and extend between the timber rails (Context 4). Where exposed in the trench edge this layer is up to 150 mm thick and appears to sit in a deliberate cut (Context 6)
3	Below 1 Above 2 and 4 Within 6	At least three wooden planks nailed across the two wooden rails. Each plank is up to 1.04 m long, 0.26 m wide and 50 mm thick. Each plank is held in place by two nails at each end with octagonal heads 20 mm in diameter and shafts with a square cross section 8 mm square.
4	Below 1 and 3 Abuts 2 Within 6 Above 5	Two large timbers, each 1.34 m long, 200 mm wide and 80mm thick run in parallel and 380 mm apart. The planks (Context 3) are nailed into the upper surface and the same between the rails is packed with Context 2.
5	Below 1, 2, 5 Cut by 6	Deep dump of very loosely packed slate waste, typically 300 x 80 x 20 mm in size but up to 700 x 500 x 200 mm in size. Very little matrix between the blocks, but what little there is consists of a bright orange/brown silt. A sondage in the eastern end of the trench suggests this layer is at least 1.10 m deep
6	Below 2 Contains 2, 3, 4 Cuts 6	Shallow cut into the top of Context 5 forming a “T” shaped feature in the northern end of the trench. It runs in a band, approximately 600 mm wide along the western end of the trench and extends out below the wooden structure. Up to 200 mm deep

Appendix 2: Photographic Index

Photograph	Direction of View (Looking)	Subject	Scale
001	S	Wooden structure (Contexts 3 and 4)	1 m
002	E	Wooden structure (Context 3 and 4)	1 m
003	E	Wooden structure (Context 3 and 4)	1 m
004	N	Wooden structure (Context 3 and 4)	1 m
005	S	Typical section of the trench	1 m
006	N	Sondage	1 m
007	NE	Sondage	1 m
008	NE	Sondage	1 m
009	E	Sondage	1 m
010	E	General view of trench	1 m
011	E	General view of trench	1 m
012	W	General view of trench	1 m
013	W	General view of trench	1 m
014	Vertical	Detail of spikes	200 mm
015	Vertical	Detail of spikes	200 mm
016	Vertical	Detail of spikes	200 mm
017	Vertical	Slate slab on surface of Context 2	200 mm
018	Vertical	Slate slab on surface of Context 2	200 mm
019	Vertical	Slate slab on surface of Context 2	200 mm
020	Vertical	Detail of spike	none
021	N	Detail of spike	none
022	E	Backfilling	none
023	E	Backfilling	none
024	SW	Backfilling	none
025	S	General view of the yard before the excavation	none
All trench	Vertical	Photogrammetric view of the trench	none
Timber	Vertical	Photogrammetric detail of the wooden structure	none