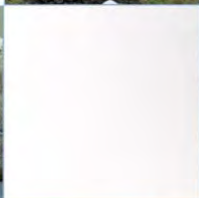
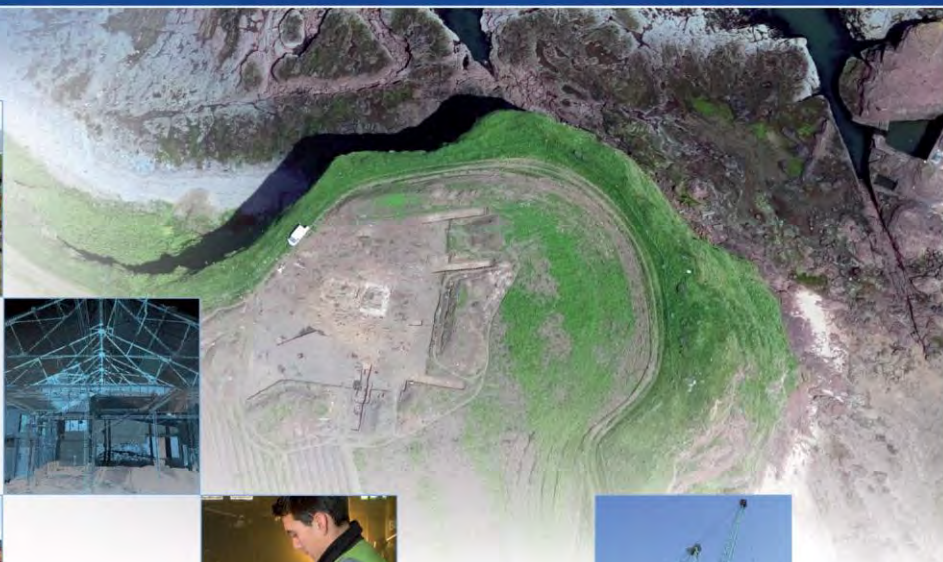


Meadowbank Phase 2, Edinburgh: Archaeological Evaluation Data Structure Report

AOC 24273

April 2018



Meadowbank Phase 2, Edinburgh: Archaeological Evaluation Data Structure Report

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ABSTRACT

An archaeological evaluation was undertaken by AOC Archaeology Group within the Phase 2 development area of the former Meadowbank Stadium, Edinburgh. The evaluation was primarily designed and implemented in order to establish the presence and degree of preservation of the mid-19th century 'St Margaret's Station North British Railway Works and Locomotive Department' and the early 15th century St. Margaret's Well which had been disturbed during the construction of the railway depot.

The trenching opened amounted to some 1100 m² across seven trenches with significant remains belonging to the railway depot uncovered in six of these trenches. The remains unearthed included sandstone walls, brick walls, railway track fittings, road surfaces and remains of both the original and later mid-20th century locomotive 'turning platform'. The presence of live services meant the cartographic position of St. Margaret's Well could not be trenched and no evidence for the well was found elsewhere.

The evaluation has shown the later 20th century demolition and redevelopment of the railway depot ahead of the 1970 Commonwealth Games left substantial remains including ground level surfaces as well as subsurface foundations. A programme of mitigation works is liable to be required by CECAS if preservation *in situ* is not possible.

1 INTRODUCTION

1.1 Background

1.1.1 A programme of archaeological work is required by Thomas and Adamson on behalf of their client ahead of the redevelopment of the Meadowbank Sports Centre and associated grounds at 139 London Road, Edinburgh. The archaeological works include an historic building recording survey of the existing sports centre, an archaeological watching brief and a targeted archaeological evaluation. The need for, and scope of, the archaeological works has been determined by City of Edinburgh Council (CEC) who are advised on archaeological matters by the City of Edinburgh Council Archaeology Service (CECAS).

1.1.2 The programme of archaeological works is in keeping with the policies outlined in *Scottish Planning Policy* (2014) and *PAN 2/2011 Planning and Archaeology* (2011) in order to record the extent and significance of any archaeological remains which may be present within the development area.

1.1.3 The work will be undertaken in 3 stages:

Stage 1: Historic building recording survey, archaeological watching brief and archaeological evaluation.

Stage 2: Additional fieldwork (ie, further evaluation and/or excavation) or the provision by the development proposals which would allow preservation *in situ* of any buried archaeological material.

Stage 3: Post-excavation analysis and publication of discovered archaeological remains.

1.1.4 This *Data Structure Report* details the findings of the Stage 1 Archaeological Evaluation of the Phase 2 portion of the development with targeted trenching placed over the 19th century Railway workings and the site of St. Margaret's Well. The Stage 1 HBR will be reported on separately and the Stage 1 Watching Brief and Phase 1 Archaeological Evaluation has yet to be undertaken

1.2 Site location

1.2.1 The development area is centred on NT 27936 74341 and consists of Meadowbank Sports Stadium, Velodrome, artificial pitch, car parking, ancillary buildings and landscaped areas (Figures 1 & 2). The southern boundary is formed by London Road with the western boundary is formed by Wishaw Terrace and Marionville Road. The eastern and northern boundaries are formed by railway lines.

1.2.2 The site is split into 'Phase 1' and 'Phase 2' as part of the development programme (see Figure 1). Phase 1 includes the sports stadium and Meadowbank Sports Centre, the latter of

which will be replaced with a new sports centre. Phase 2 consists of the remainder of the site comprising the ancillary buildings, Velodrome, car park areas, artificial pitch and landscape areas which will see a new the construction of a mixed-use residential development.

1.3 Archaeological and Historical Background

- 1.3.1 The development site presently houses buildings constructed for the Commonwealth Games in 1970 and then used in again in 1986. Meadowbank Stadium (HES No. NT27SE 524) and the Velodrome (HES No. NT27SE 524.01) are the main buildings on the site associated with the Commonwealth Games.
- 1.3.2 The earliest mapping covering the site shows it to be predominantly farmland up until the start of the 19th century where it becomes known as ‘Restalrig Meadow’, much of which belongs to the Earl of Morton. Kirkwood’s map of 1817 is the first to show the presence of St. Margaret’s Well with a north-east/south-west road providing access (Figure 3). St Margaret’s Well (HES No. NT27SE 5976) was a 15th century spring with a surrounding vault which was demolished and removed in 1860 with the remains rebuilt in Holyrood park. In 1969, as part of the works on site ahead of the Commonwealth Games, the site of the well was uncovered and backfilled. Kirkwood’s map also shows the site to be crossed by a burn orientated north-east/south-west.



Figure 3: Extract from Kirkwood's map, 1817

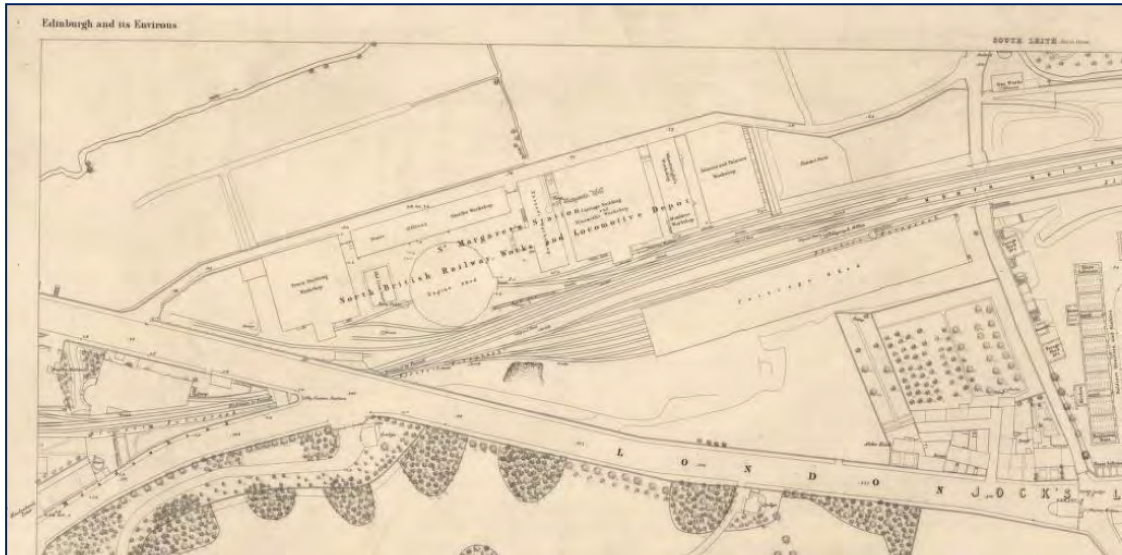


Figure 4: Extract from 1st Edition Ordnance Survey map, 1852

- 1.3.3 By the middle of the 19th century, the North British Railway had been constructed and a large railway depot called the 'St Margaret's Station North British Railway Works and Locomotive Department' was constructed to the east side of the development area (Figure 4). It is noted that during the construction of the depot the remains of St. Margaret's Well were removed and backfilled. The depot included a turntable for locomotive engines and comprised a large number of buildings. The works continued into the early 20th century, as can be seen on the subsequent 1908 and 1914 Ordnance Survey maps (Figures 5 & 6). However, by the 1931 Ordnance Survey map, a collection of neatly arranged pre-fabricated houses were built on the site to the immediate west of the Railway Works (Figure 7). In the years following WW2 the 'turning platform' was remodelled and the roofed engine shed removed (Figure 9). A large football ground has also been laid out to the north.



Figure 5: Extract from Ordnance Survey map, 1908



Figure 6: Extract from Ordnance Survey map, 1914



Figure 7: Extract from Ordnance Survey map, 1931

- 1.3.4 By 1945, all these buildings have been taken down, and the football ground has been abandoned in favour of a larger purpose-built recreation ground to the west, as can be seen in the Ordnance Survey map of that year (Figure 8). By 1954, the Ordnance Survey then notes that a new speedway track and football ground has been built to the east of the recreation ground in the position of the original football pitch. This remained the layout of the site until the construction of the buildings for the Commonwealth Games in 1970.

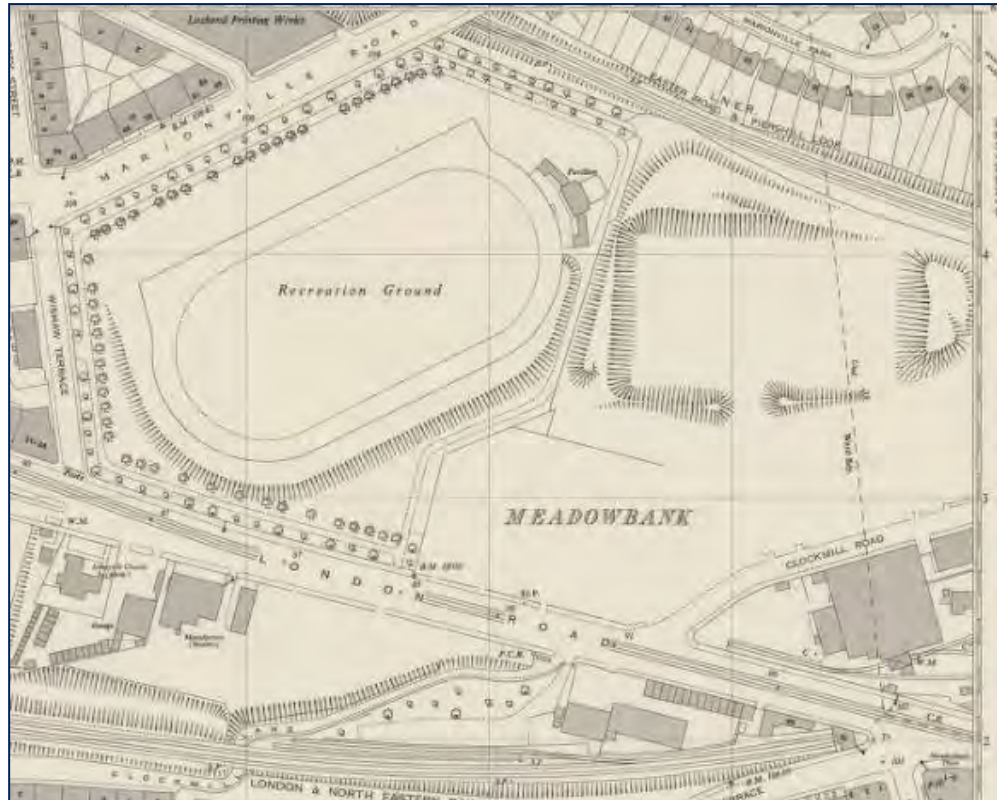


Figure 8: Extract from Ordnance Survey map, 1945

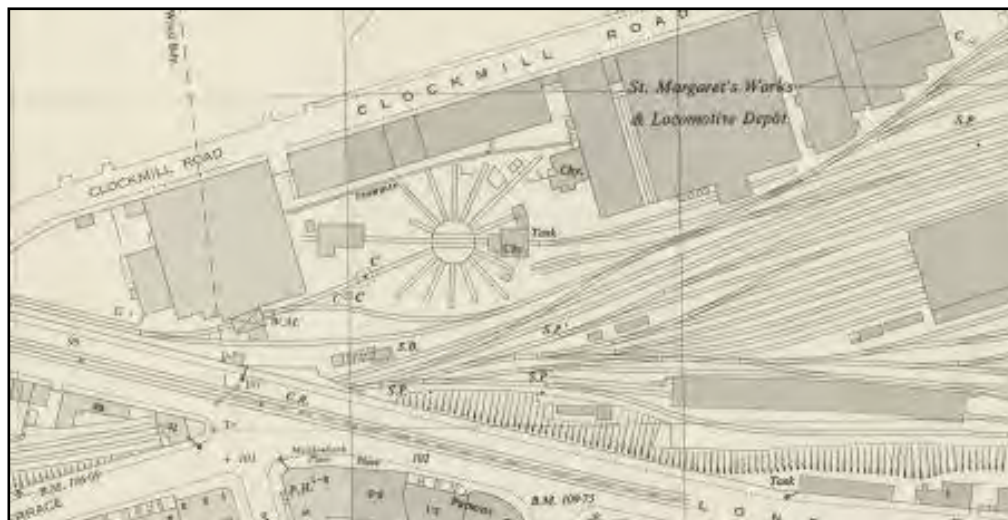


Figure 9: Extract from Ordnance Survey map, 1966

2 OBJECTIVES

- 2.1 The objectives of the archaeological evaluation works were to determine and assess the character, extent, condition, quality, date and significance of any buried archaeological remains within the proposed development area through targeted evaluation trenching. The works comprised a targeted evaluation trenching within the Phase 2 area over the position of the 19th century St. Margaret's Works and Locomotive Depot and the site of St. Margaret's Well.

- 2.2 Another objective is to advise and implement an appropriate form of mitigation, formulated with the approval of CECAS, such as excavation (Stage 2), post-excavation analyses and publication (Stage 3), given the infeasibility of preserving the archaeological material *in situ*, should significant archaeological remains be encountered.

3 METHODOLOGY

- 3.1 The evaluation consisted of seven trenches of varying length and alignment, equating to just over 1,100 m² of evaluation trenching (Figure 4). The presence of a number of live services primarily a number of large live sewer pipes restricted the positioning of some trenches. The work was conducted utilising a 13 tonne tracked excavator equipped with bladed ditching bucket, operating under the constant supervision of an experienced field archaeologist. Each trench was recorded using AOC *pro forma* trench record sheets.

4 RESULTS

- 4.1 All archaeological works were conducted on the 9th to the 20th April 2018 Weather conditions were fair throughout the course of the work conducted meaning that archaeological visibility was good. The various data gathered from the evaluation are presented as a series of appendices:

Appendix 1: Evaluation Trench Descriptions

Appendix 2: Context Register;

Appendix 3: Photographic Register;

Appendix 4: '*Discovery and Excavation in Scotland*' entry

- 4.2 In total seven trenches were opened providing comprehensive coverage of the evaluation area. Live services as shown on Figure 2 covered some crucial areas specifically the location of St. Margaret's Well as shown on the 1st Edition Ordnance Survey map. The presence of the live sewer service meant that it was not possible to excavate a trench over the location of St. Margaret's well as shown from the cartographic evidence and it is suggested the live service may in fact have negatively impacted upon the well given the relative positions from the mapping evidence. However, out with the service buffer zones in every trench opened there were remains associated with the 19th/20th century rail depot present with railway tracks, sandstone walls, brick walls, inspection pits and remains of the 'turning platform' all uncovered. The extent of these railway remains was confirmed towards the northern part of the evaluation area where the remains of 'Clockmill Lane' were found.

4.3 Trench 1 (Figures 10 & 17)

- 4.3.1 Trench 1 was aligned East to West and was positioned to cross the 'turning platform'. It was presently covered with tarmac and comprised part of the carpark area. This area of the site

was about 0.3 m to 0.4 m lower in height than the artificial football pitch to the North and greenfield grassed area to the East.



Plate 1 'Turning Platform' [108] with stone kerb [109] and brick floor [110]

- 4.3.2 Much of Trench 1 was difficult to interpret with large amounts of heavily compacted demolition material present beneath the tarmac and was crossed by a series of deep set large late 20th century drainage features. However, in the middle of the trench there was a concrete surface with wooden railway sleepers [106] surviving and at the eastern end of the trench was found more substantial railway remains relating to the mid-20th century version of the 'turning platform' as shown on Figure 9. This smaller 'turning platform' was constructed after the original roofed engine shed was demolished. The outer wall of the 'turning platform' [108] was constructed of brick and approximately a 5.0 m section somewhat damaged was revealed. Built from yellow brick in the upper two courses with red brick used for the lower seven courses it extended to a depth of 1.0 m where it rested on a 0.7 m wide stone kerb [109]. Inside the stone kerb there was a red brick brick floor [110].
- 4.3.3 Lying directly outside brick rim of the 'turning platform' there was a stone slabs [111] some of which had cut holes presumably for fittings or railings. Also set into the brick rim [108] were occasional wooden railway sleepers [112] for rail tracks. As can be seen in Figure 9 radiating from the turning platform were sixteen sets of railway tracks and [114] and [115] are one of these tracks. They comprised concrete strip with cast iron fixings for rails.

4.4 Trench 2 (Figures 11 & 17)

- 4.4.1 Trench 2 was aligned parallel to Trench 1 and also uncovered features relating to the 'turning platform' with two lines of stone slabs with railway fittings, [211] and [212] most likely representing two separate tracks connected to the later 'turning platform' [108] in Trench 1. Lying close to these were the remains of the original 'Engine Shed' from the 1850's visible as a section of large mortared sandstone wall [208]. The plans such that in Figures 4 to 7 show this as a large roofed circular engine shed which contained a 'turning platform'. The detailed plans, (Figure 17, Plate 3) show the perimeter wall of the shed was built in short straight sections rather than a continuous curving wall and feature [208] shows one of the angled joins between two short straight sections. The wall as exposed was 0.6 m deep with a stepped foundation and 0.8 m wide but unfortunately the northern end showed substantial disturbance.



Plate 2 Sandstone 1850's Engine Shed perimeter wall [208]

- 4.4.2 At the western end of Trench 2 there was a series of reused wooden sleepers [207] laid together to form a surface set around large squared stone block [205] and [206] with associated metal fittings.



Plate 3 Showing 'Engine Shed' with roof removed early 20th century to left with 'Turner' Workshop' centre and 'Carriage Building and Tinsmith's Workshop' to the right

4.5 Trench 3 (Figures 12 & 17)

4.5.1 Trench 3 was also on an East to West alignment and was positioned over the front of the large east to West aligned building that formed the northern edge of the railway depot. On Figure 17 you can see this building labelled as 'Store', 'Offices' and 'Smith's Workshop' with the trench exposing elements of the 'Store' and 'Offices'. The majority of the trench revealed concrete flooring, [303], [305], [307] and [309] with c.North to South Brick walls forming internal divisions to the building. Wall [308] could feasibly mark the separation between 'Store' and 'Offices'. The front wall of this large two to three storey building is present as a sandstone built wall [312], with more than 13 m in length exposed revealing it to be 0.75 m wide with dressed stone and brown mortar. The foundations were not exposed as to the inside lay a concrete floor and to the outside, on the South there was a stone sett drain [313] lying parallel to the wall [312]. The cobble drain was partially covered by a tarmac surface [314] which it is believed may lie directly over the original 1850 cobble surface of the depot yard (Plate 4).



Plate 4 View of 1850 building wall [312] with associated cobble drain [313] and tarmac [314]

4.5.2 The Eastern extent of the building defined by [312] was truncated by a modern North to South aligned concrete base. This truncation can be seen in top of Plate 4.

4.6 Trench 4 (Figures 13 & 17)

4.6.1 The main elements with Trench 4 which was aligned Northeast to Southwest comprise a flue system and the exterior wall of the 'Turner's Workshop' (Figure 17, Plate 3). The flue system [412] covered an area within the trench some 6.5 m by 4.5 m North to South (Plate 5). It was primarily brick built with two parallel brick built walls, [413] and [414] with a brick floor [415]. At the South end it there was brick wall sealing the end [418] made of firebricks over concrete. Walls [413] and [414] were made of an outer and inner brick wall with stone rubble infill and each measured about 1.2 wide in total. Between these two walls there was red brick floor, 1.1 m wide with a central divider of set firebricks. The flue had been backfilled with sand and the upper part of demolished flue. There was evidence of heating to surround subsoil.

4.6.2 At the northern end of Trench 4 there was revealed a large sandstone wall [420] constructed of mortared, dressed sandstone blocks which match with the 'Turner's Workshop' as shown on Figure 17 and Plate 3. The wall was 0.9 m wide and over 5 m was exposed (Plate 6).



Plate 5 View flue system in Trench 4



Plate 6 Sandstone wall [420]

4.7 Trench 5 (Figures 14 & 17)

- 4.7.1 Both Trench 5 and Trench 7 were as placed over the 'Carriage Building and Tinsmith's Workshop' shown on Figure 17 and in Plate 3. In Plate 3 the building is seen as slightly smaller than the 'Turner's Workshop' though the walls found in trench 5 and 7 are substantial. In Trench 5 at the Southwest end of the trench is found the c N-S external wall [506] and at the other end of the trench the East to West external wall [518]. Both walls are built of mortared, dressed sandstone blocks. Wall [506] was exposed along a length of 8 m but was partially truncated to the north and south and cut by a later service (Plate 8). It measured 0.9 m wide with a depth of 1.0 m and had a stepped foundation. In contrast wall [518] was much deeper and larger in construction with more than one phase of building apparent with brick augmentations visible [520] (Plate 9). It was over 2.3 m deep, up to 1.2 wide and extended for 7 m. The bricks [520] had been used to block a hole in the wall.



Plate 7 Brick inspection channel [514] & [515]

- 4.7.2 Within the interior of the building defined by sandstone wall [506] and [520] there were a series of at least four brick built parallel channels, inspection pits. These were designed to take rails presumably for the carriages during construction. These brick channels comprised double thick brick walls, [507] & [508], [510] & [511], [512] and [513] and [514] & [515]. Plate 7 shows a slot through one of the channels which were backfilled with demo material and cinder. The channels were about 1.0 m wide and the locations of wooden crossmembers could be seen which presumably held railway tracks. A brick square structure [516] can be seen as contemporary and associated with these features.



Plate 8 Sandstone wall [506] showing foundation step and modern service cut



Plate 9 Sandstone wall [520] showing later brick augmentation

- 4.7.3 The last feature in Trench 5 was the remains of 'Clockmill Lane' the c East to West aligned road which defined the northern extent of the mid-19th century railway buildings. This road was found 1.5 m below the ground level and comprised cobble sett drain [523] with what would appear to be a later tarmac covering [522]. It is likely the original setts from the 1850's survives under the later tarmac (Plate 10).



Plate 10 Showing 'Clockmill Lane' tarmac [522] and setts drain [523] under 1.5 m of made ground

4.8 Trench 6 (Figure 15)

- 4.8.1 Trench 6 did not reveal any features but did contain at least 3 m of made ground. Natural geology was not encountered.

4.9 Trench 7 (Figures 16 & 17)

- 4.9.1 This trench mirrored the findings in Trench 5 with many features representing brick channels encountered [707] & [708], [709] & [710] and [711] & [712] and East to West tarmac road [715]. However, there was another brick wall running perpendicular to the channels [713] which appeared to signify the eastern extent of these channel features. Also, to the south there were three large sandstone walls [704], [705] and [706]. The walls were similar in size with widths of 0.90 m and construction, mortared dressed sandstone blocks. Wall [704] corresponds to the external southern wall of the 'Carriage Building and Tinsmith's Workshop' shown on Figure 17 and in Plate 3 with walls [705] and [706] appearing to lie within the building. These two sandstone walls are the only two such internal walls identified and may suggest a different phase of buildings.

- 4.9.2 At the Northern end of Trench 7 another section of tarmac road [715] was encountered matching that found in Trench 5 and on the expected alignment of 'Clockmill Lane'

5 CONCLUSION AND RECOMENDATIONS

- 5.1 The archaeological evaluation has successfully determined the presence of the mid 19th Century St. Margaret's Railway Works and Locomotive Depot within the development area. This includes the various remains of turning platform, railway sheds and 'Clockmill Lane' with many elements correlating with the 19th Century map evidence. Whilst there are a number of large features such as external walls and features that are depicted on the maps there were other internal features noted that provide a wealth of additional information not recorded on the cartographic sources.
- 5.2 The presence of a large live sewer meant that no trenches could be opened directly over the recorded position of St Margaret's Well. It is entirely possible that this sewer has disturbed the remains of the well though the exact depth and impact of this service is not at this stage known. However, the evaluation has demonstrated the survival of the railway depot across the site and the well is expected to lie at least at this level if not just below so the possibility exists that the well remains may also survive on site.
- 5.3 Due to the presence of these significant archaeological remains it is recommended that an open area excavation in the form of a strip-map-record exercise takes place. The scope and nature of any further works such will be determined by the City of Edinburgh Council as advised by CECAS.

6 REFERENCES

6.1 Bibliographic References

AOC 2018 *Meadowbank Sports Centre HBR, Evaluation and Watching Brief Written Scheme of Investigation*. Unpublished client report

Scottish Government 2014 Scottish Planning Policy.

Scottish Government 2010 PAN 2/2011 Planning & Archaeology.

6.2 Cartographic References

1817 Robert Kirkwood *This plan of the City of Edinburgh and its environs*

1852	Ordnance Survey	<i>Edinburgh Sheet 32</i>
1908	Ordnance Survey	<i>Edinburghshire Sheet III.8</i>
1914	Ordnance Survey	<i>Edinburghshire Sheet III.8</i>
1931	Ordnance Survey	<i>Edinburghshire Sheet III.8</i>
1945	Ordnance Survey	<i>Edinburgh Plan NT2774SE – B</i>
1954	Ordnance Survey	<i>Edinburgh Plan NT2774 – B</i>

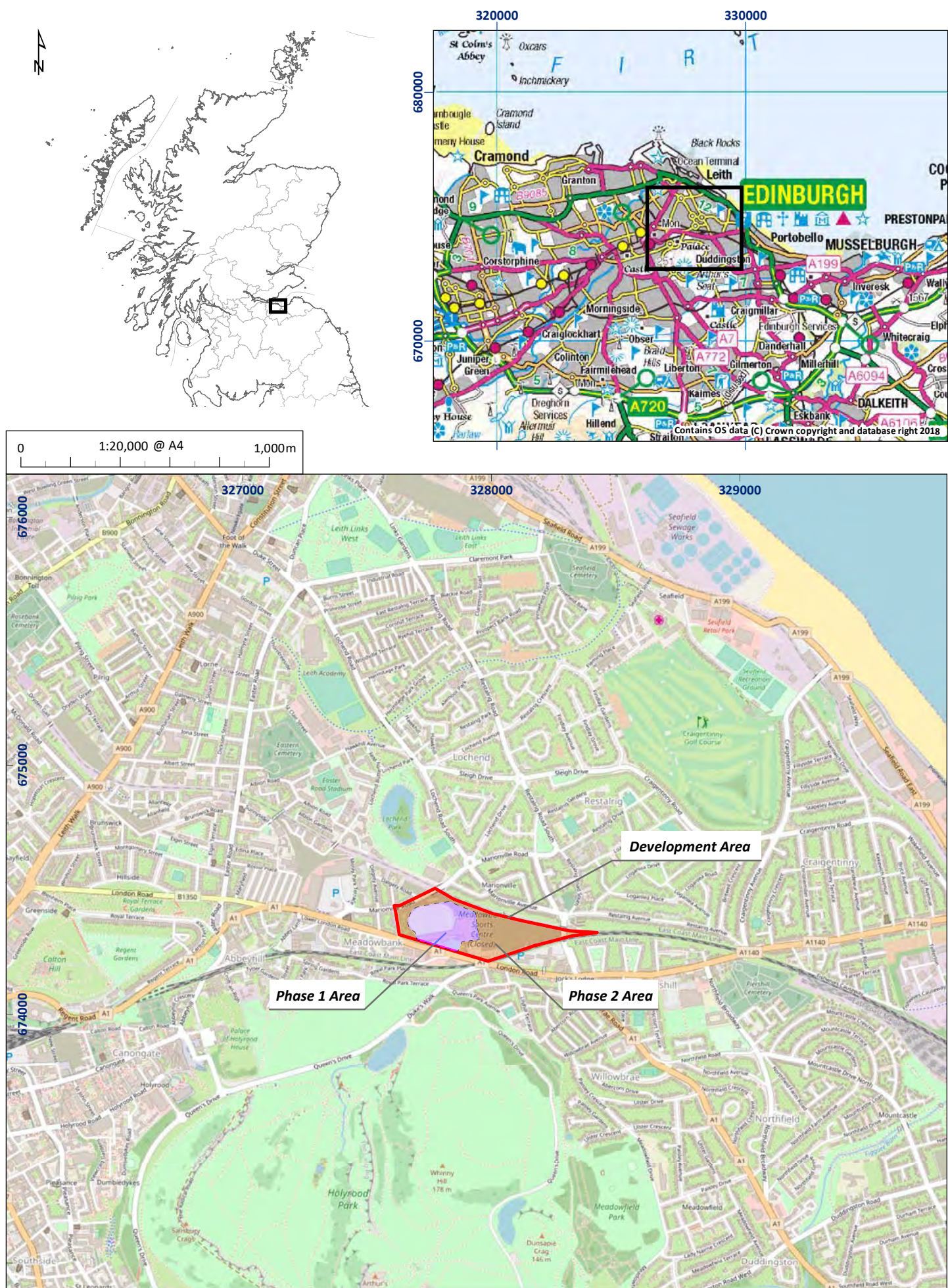


Figure 1: Site location plan

01/24273/DSR/01/01

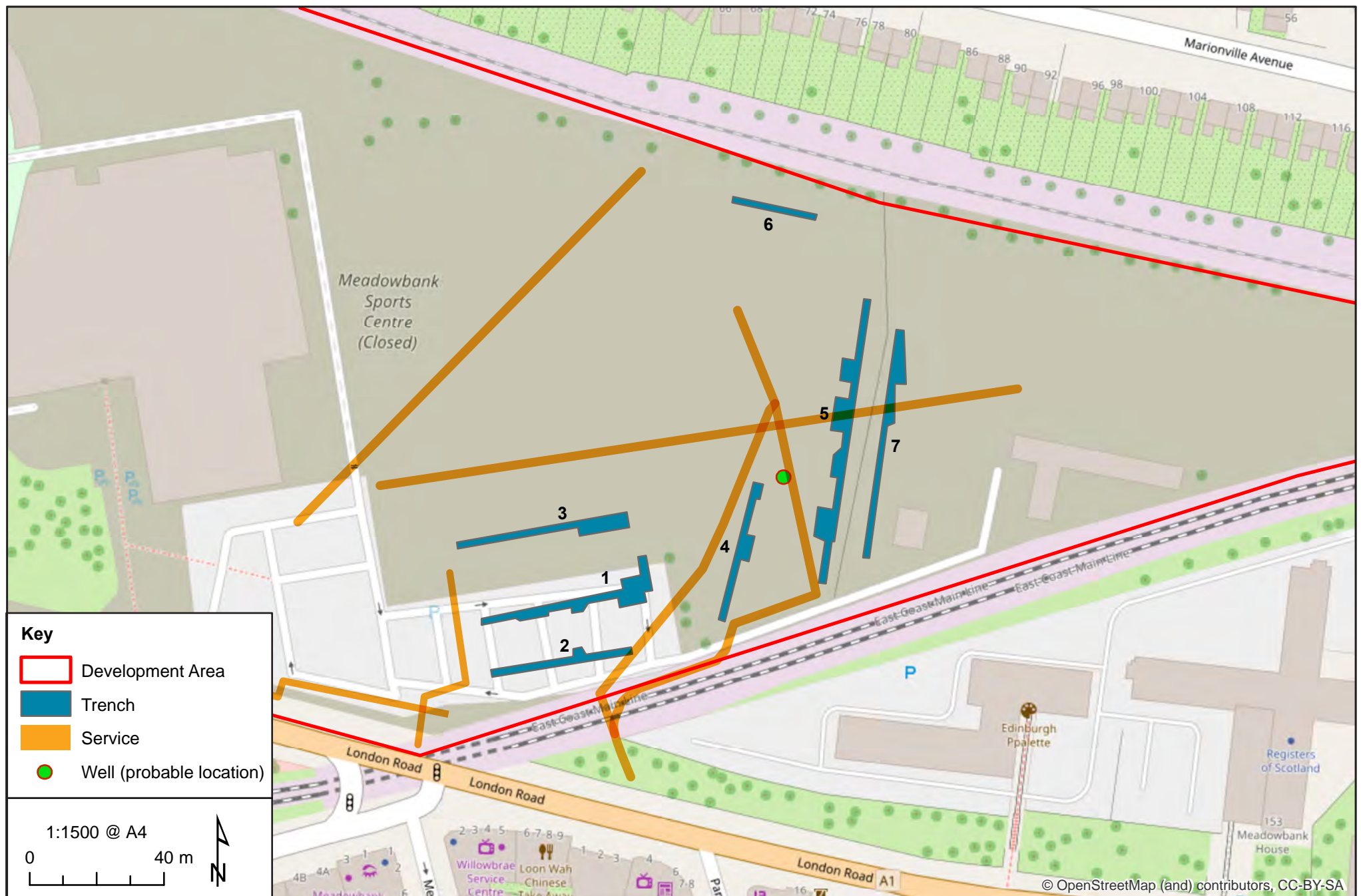


Figure 2: Plan of the evaluation trenches

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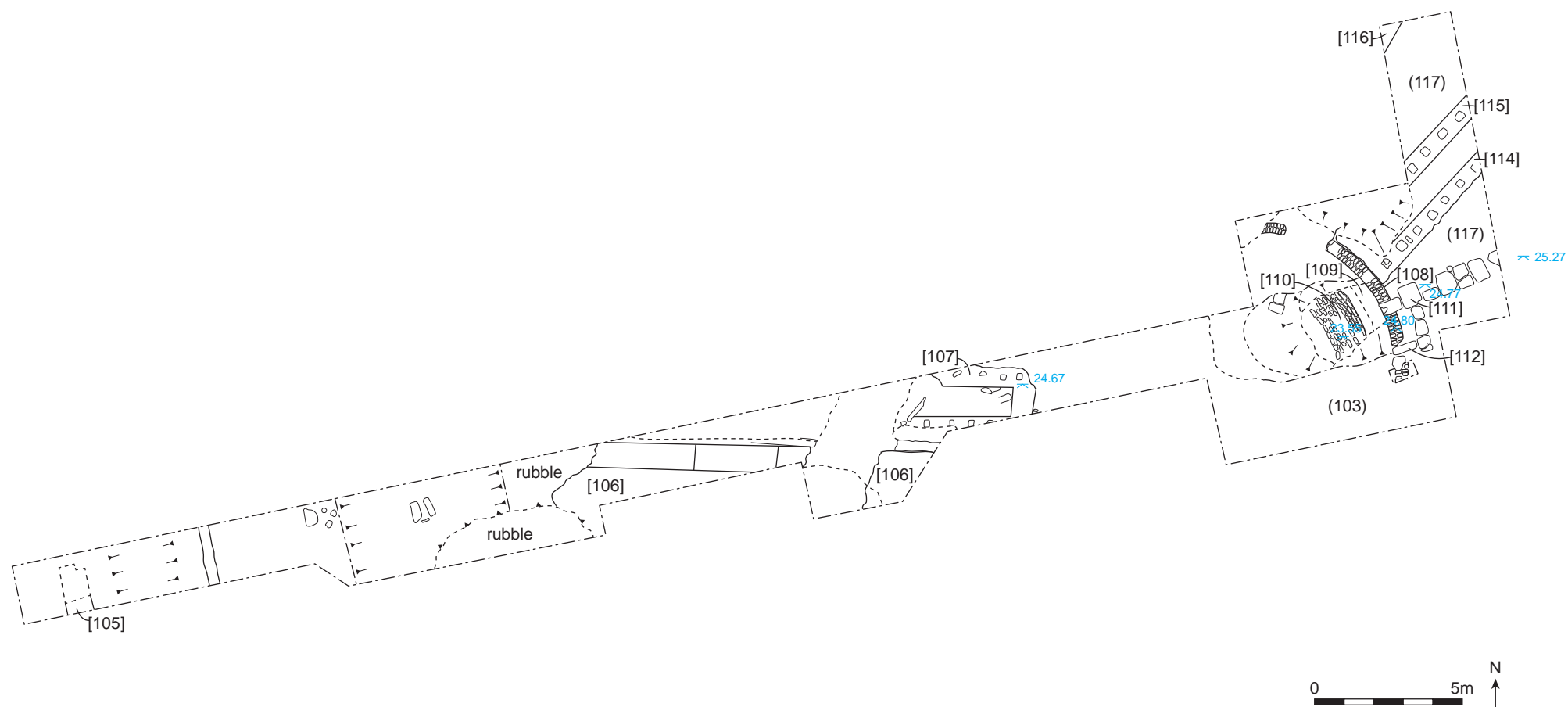


Figure 10: Plan of trench 1

01/24273/DSR/10/01

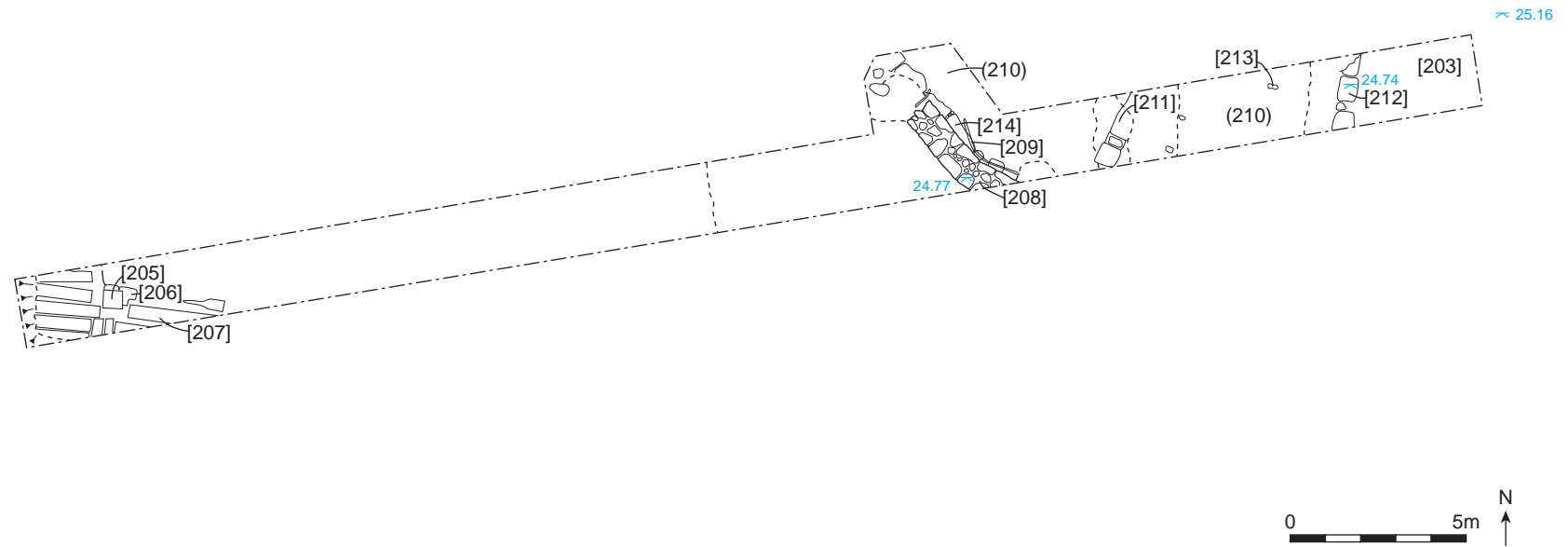


Figure 11: Plan of trench 2

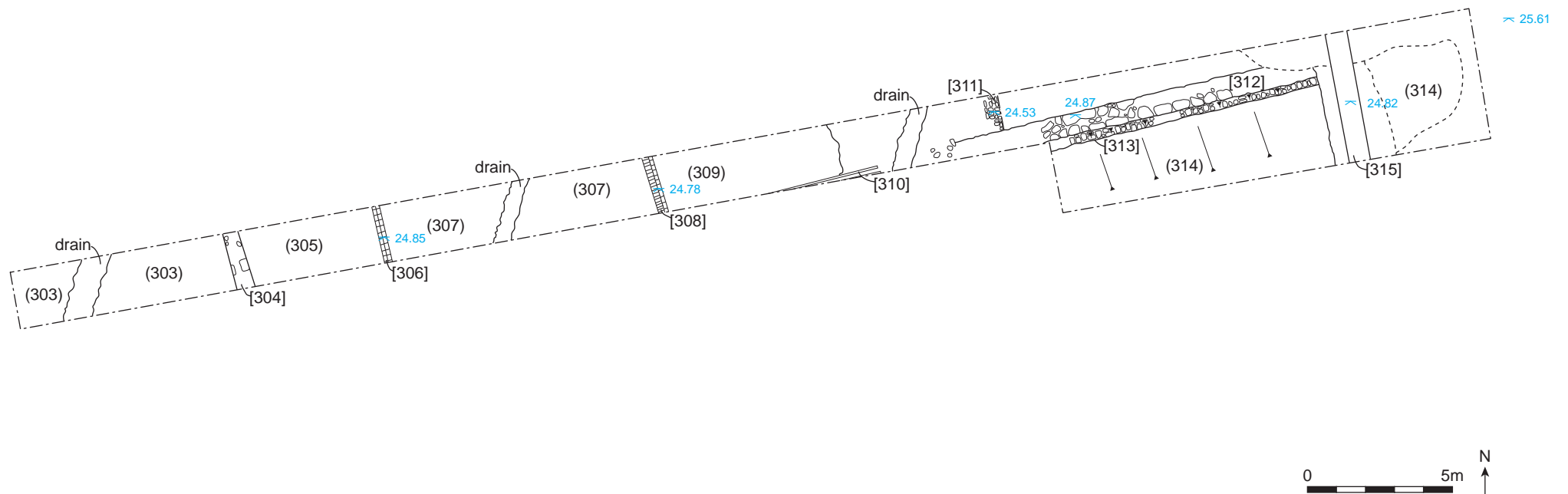


Figure 12: Plan of trench 3

01/24273/DSR/12/01

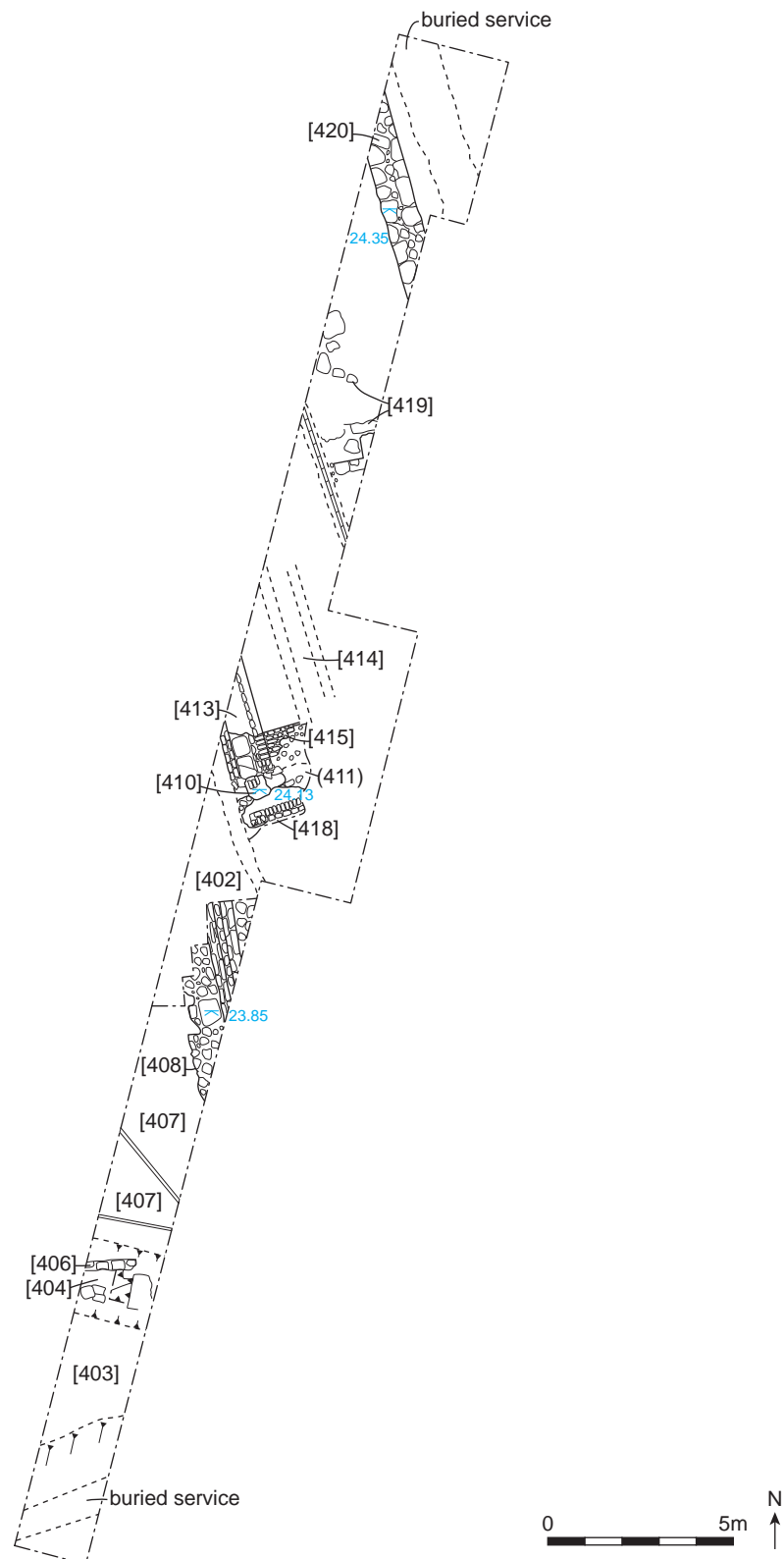


Figure 13: Plan of trench 4

01/24273/DSR/13/01

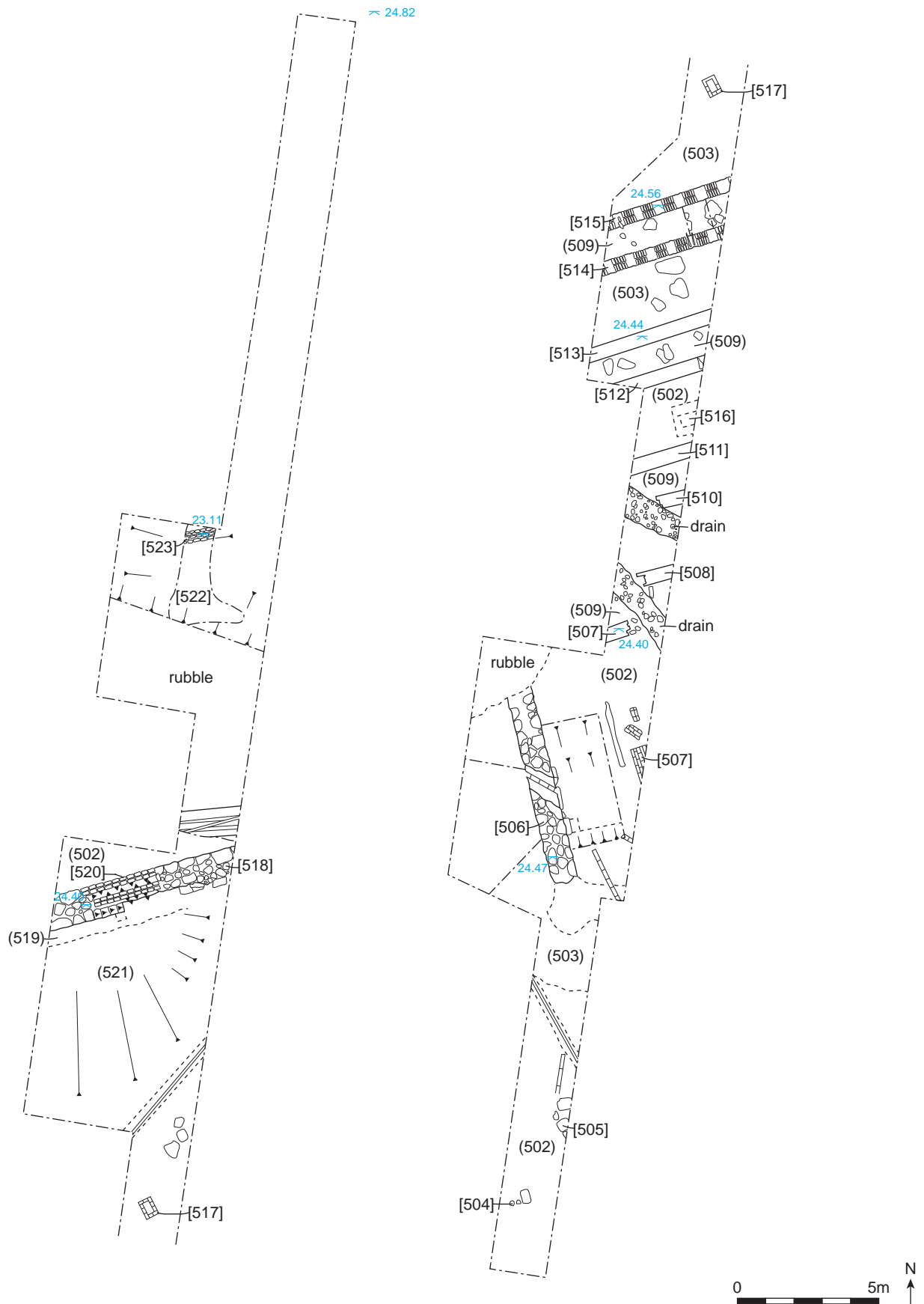


Figure 14: Plan of trench 5

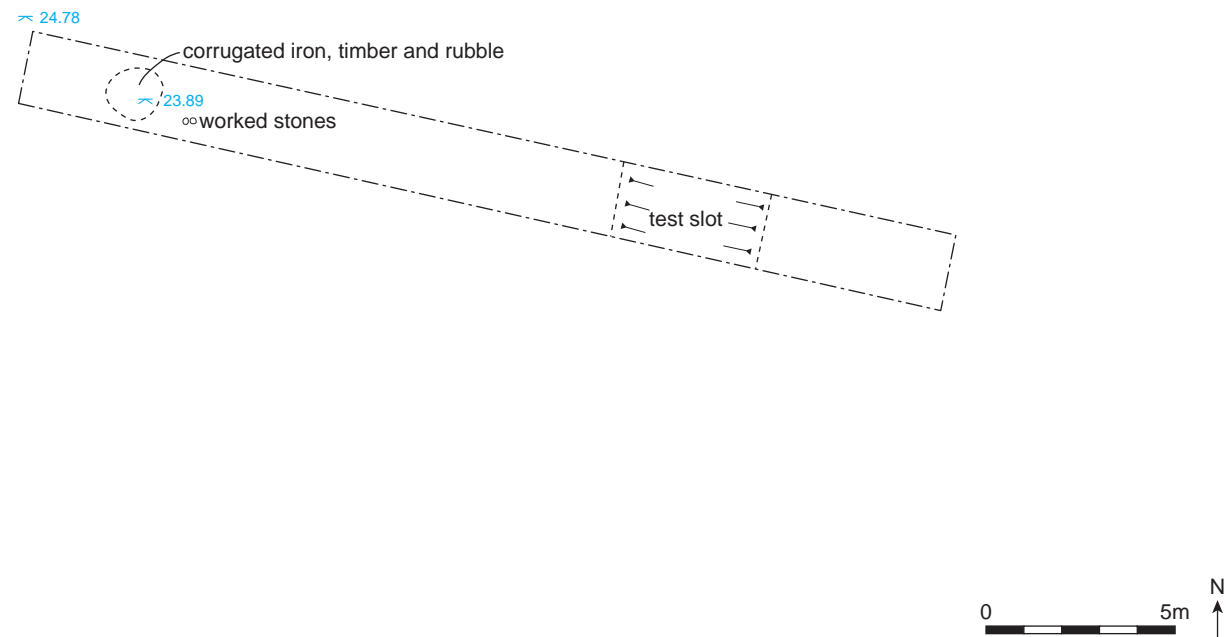


Figure 15: Plan of trench 6

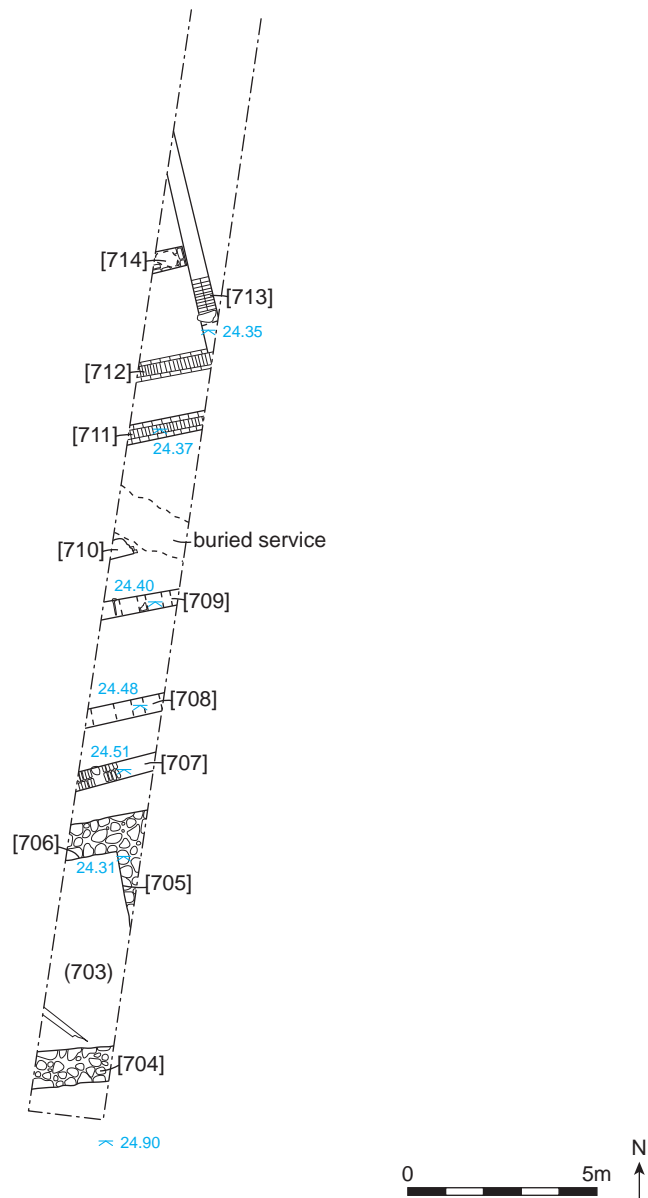


Figure 16: Plan of trench 7

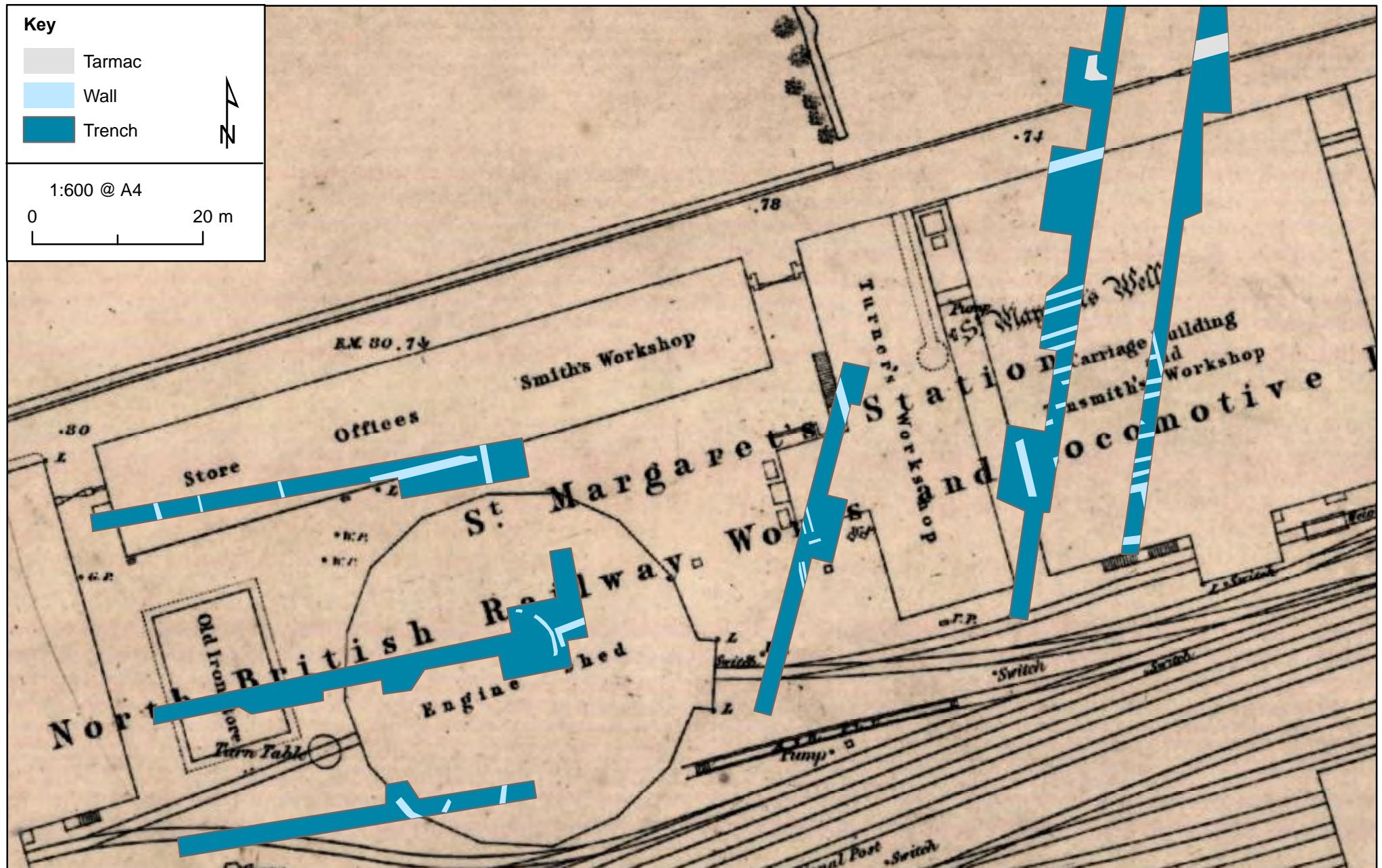


Figure 17: Plan of trenches over 1852 Edinburgh Town Plan

Meadowbank Phase 2, Edinburgh: Archaeological Evaluation Data Structure Report

Section 2: Appendices

APPENDIX 1: EVALUATION TRENCH DESCRIPTIONS

Trench 1

<i>Dimensions</i>	52 m by 2-4 m
<i>Excavated Orientation</i>	E to W
<i>Soil make-up</i>	Made ground – compressed rubble – 0.15-1.3m Tarmac – 0.1m Type 1, Hardcore 0.3-0.4m
<i>Natural Subsoil</i>	Not reached
<i>Significant Features</i>	See Appendix 2
<i>Other Features</i>	None
<i>Finds</i>	None

Trench 2

<i>Dimensions</i>	42 m by 2-2.5 m
<i>Excavated Orientation</i>	E to W
<i>Soil make-up</i>	Made ground – compressed rubble – 0.2-0.3m Tarmac – 0.1m Type 1, Hardcore 0.3m
<i>Natural Subsoil</i>	Not reached
<i>Significant Features</i>	See Appendix 2
<i>Other Features</i>	None
<i>Finds</i>	None

Trench 3

<i>Dimensions</i>	50 m by 2 m
<i>Excavated Orientation</i>	E to W
<i>Soil make-up</i>	Topsoil – Astroturf – 0.5m Compressed Rubble – 0.2-0.3m
<i>Natural Subsoil</i>	Not Reached
<i>Significant Features</i>	See Appendix 2
<i>Other Features</i>	None
<i>Finds</i>	None

Trench 4

<i>Dimensions</i>	42 m by 2 - 4.5 m
<i>Excavated Orientation</i>	NW to SE
<i>Soil make-up</i>	Topsoil – 0.2 m Made ground – 0.3 – 1.0m
<i>Natural Subsoil</i>	Mid brown sandy clay, patches of yellow sand
<i>Significant Features</i>	See Appendix 2
<i>Other Features</i>	None
<i>Finds</i>	None

Trench 5

<i>Dimensions</i>	85 m by 2 - 6 m
<i>Excavated Orientation</i>	N to S
<i>Soil make-up</i>	Topsoil – 0.2m Made ground – 0.3-0.5 m
<i>Natural Subsoil</i>	Yellow sand and gravel
<i>Significant Features</i>	See Appendix 2
<i>Other Features</i>	None
<i>Finds</i>	None

Trench 6

<i>Dimensions</i>	25 m by 2 m
<i>Excavated Orientation</i>	N to S
<i>Soil make-up</i>	Topsoil – 0.2 m Made ground - 0.7-2.4m B-horizon – 0.1m
<i>Natural Subsoil</i>	Not reached
<i>Significant Features</i>	See Appendix 2

<i>Other Features</i>	None
<i>Finds</i>	Glass bottle
Trench 7	
<i>Dimensions</i>	25 m by 2 m
<i>Excavated Orientation</i>	N to S
<i>Soil make-up</i>	Topsoil – 0.2 m Made ground – 0.2-1.8m
<i>Natural Subsoil</i>	Not reached
<i>Significant Features</i>	See Appendix 2
<i>Other Features</i>	None
<i>Finds</i>	None

APPENDIX 2: CONTEXT REGISTERS

Context No.	Description and Interpretation
[101]	Tarmac Tarmac
[102]	Red blaze – Only at west end of trench Made ground
[103]	Compressed rubble – brick/grey sandy clay, lots of fragments of building demolition very hard packed. 0.1-0.3 thickness Made ground
[104]	Deposit of black/grey cinder – below red blaze at west end of trench Made ground
[105]	Red brick wall – west end of trench, N-S orientation, 0.8m wide x 1.5m long Red brick wall
[106]	Concrete surface with wooden beams set into it. Brown sandy concrete, wooden beams, truncated by deep foundations for carpark drainage channels. Attached to feature [107]. Approximately 12m long, 4m wide. Concrete surface
[107]	Underground concrete chamber below rail tracks. 4.5m x 1.0m Concrete chamber
[108]	Brick wall of round railway turntable. Yellow brick used for upper 2 courses, 7 lower courses red brick bonded with pale brown sandy mortar. 1.0m in height, 0.4m thick, 2 courses of brick. Railway turntable
[109]	Stone kerb at base of [108]. 0.7m wide on same curve. Stone kerb
[110]	Red brick floor, 0.05m below [109], bricks poor condition, truncated at L.o.E Red brick floor
[111]	Stone slabs – surrounding chamber, some worked with holes. Stone slabs
[112]	Wooden beams set into [108], probable sleepers Wooden sleeper beams
[113]	Loose rubble fill – black/grey cinder and brown sandy mortar and large amount of construction demolition material. Stone often large and worked, brick some in huge chunks of masonry. Wood and metal fittings, glass etc. Approx. 1m thick Demolition deposit.
[114]	Grey concrete slab with fixings for rails – abuts against turntable [108], 5.0m x 0.6m Concrete slab
[115]	Grey concrete slab with fixings for rails – abuts against turntable [108], 5.0m x 0.6m Concrete slab
[116]	Concrete slab, N-S orientation at North of trench Concrete slab
[117]	Compressed layer of black cinder and coal dust, possible accumulation from working life of turntable. Deposit
[201]	Tarmac Tarmac
[202]	Red blaze – Only at west end of trench Made ground
[203]	Compressed rubble – brick/grey sandy clay, lots of fragments of building demolition very hard packed. 0.1-0.3 thickness Made ground
[204]	Deposit of black/grey cinder – below red blaze at west end of trench Made ground
[205]	Square stone slab with rusted material on surface – 0.5mx0.5mx0.1m, sits on [206] Stone slab
[206]	Large stone blocks, 1mx1mx0.2m, flat surfaced Stone blocks
[207]	Wooden sleepers, re-used as a surface all with holes for rail fittings mostly all rotten. Not fully exposed. C.2.0m x 0.35m x 0.2m

	Wooden sleepers
[208]	Curved wall – stone with pale brown mortar. Likely the wall of the original turntable chamber. 0.8m wide, 0.6m depth. 2m length visible. Iron pipe [209] runs around the inside with downpipe running down wall. Engine shed wall
[209]	Iron pipe – 0.05 diameter Iron pipe
[210]	Brown sand and occasional cinder and brick fragments and stones. Fill within wall [208], 0.5m thickness. Deposit
[211]	Linear feature of stone slabs with worked holes cut into them. Probable rail line linked to turntable [208]. 2.0m x 0.5m. NE-SW orientation. Possible rail line
[212]	Similar to [211], no evidence of rail footings. 2.0m x 0.5m, N-S orientation. As [212]
[213]	Iron 'I' beam set into ground between [212] and [211] Iron 'I' beam – unknown function
[214]	Large flat stone slabs – foundation for rail turntable [208], only partly visible between wall. Approx. 0.5m thick two courses. Large slabs
[301]	Green Astro Turf pitch – 0.5 m thickness Topsoil
[302]	Compressed rubble – brick/grey sandy clay, lots of fragments of building demolition very hard packed. 0.1-0.3 thickness Made ground
[303]	Grey concrete floor – west end of trench – 7.5m excavated length continues out to west, abuts wall [304]. Concrete floor
[304]	Sandstone and mortar wall, N-S orientation truncated to floor level – 0.7m wide. Between floor surfaces [303] and [305] Sandstone wall
[305]	Grey concrete floor between walls [304] and [306], 4.5m long Concrete floor
[306]	Thin brick wall – truncated to floor level, N-S orientation between surfaces [305] and [307]. 2 bricks thick red/yellow bricks and sandy brown mortar, 0.25m wide. Internal wall
[307]	Concrete floor surface, brown mortar lots of visible stone inclusions. Between walls [306] and [308]. 9.5m long. Concrete floor
[308]	Thin brick wall – truncated to floor level, N-S orientation between surfaces [307] and [308]. 2 bricks thick red/yellow bricks and sandy brown mortar, 0.3m wide. Interval wall
[309]	Grey concrete surface to east of wall [308] – truncated at East end by modern disturbance. 7m excavated in length, culvert [310] set into it to south edge of trench. Concrete floor
[310]	Brick culvert set into surface [309], Yellow/red bricks, one brick thick, 3 courses high (0.3m) width 0.4m, with gap of 0.15m. filled with upper deposit of rubble, mostly mortar, under this is a dark brown silty sand deposit. Brick culvert
[311]	Feature – unmortared red bricks and grey concrete blocks in area of modern disturbance. 1.2m x 0.5m Unidentified feature
[312]	Substantial stone and pale brown mortar wall, E-W orientation. Many partially worked stones, truncated by modern disturbance to east and west ends, 0.75m wide. 0.1m height upstanding, approx. 13m in length. South face is abutted by a slope of cobbles [313]. Wall
[313]	Slope of stone cobble setts, abutting wall [312], may be the drain at edge of the road, similar to that found in Trench 5. 0.25m wide. Cobble drain
[314]	Concrete surface, grey concrete sloping or cambered possible road surface. Partially covers cobbles [313] to south of wall [312].

	Concrete surface
[315]	Modern wall – grey concrete and metal rebar, cuts through archaeological features. 0.75 m high x 0.5 m wide. Modern wall
[401]	Brown sandy clay and silty, contains modern rubbish – 0.2m Topsoil
[402]	Compressed rubble layer, 0.2-0.4m thick Made ground
[403]	Pale brown sandy clay and occasional cinder/rubble, 0.2-0.4m Made ground
[404]	Rubble and cinder – black/grey fairly loose 0.1-0.3m Made ground
[405]	Brown clay/sand and occasional cinder/rubble 0.3m Made ground
[406]	Truncated structure, sandstone and pale brown mortar walls and a large stone slab. 2mx1.25mx0.6m. Possible culvert
[407]	Iron pipe Iron pipe
[408]	Large stone and pale brown sandy mortar feature, NE-SW orientation, 5m x 2m. Double stone arched flue.
[409]	Brown/green sandy clay and silt. Fairly compact overlies [408] – initial destruction or deposit from its use 0.2m Deposit
[410]	Stone and mortar walls, including worked stone, capping slabs of flat stone slab, orientated N-S. 0.3m x 0.3 m. Stone culvert
[411]	Black silty sand and clay, 0.3m thick Fill of [411]
[412]	Large flue system made from a mixture of brick and stone. Lots of heat damage. Approx. 6m x 4.5m, N-S orientation Flue system
[413]	South wall, two bricks with inner core of stone. 3.5m x 1.2m x 0.3m. Wall
[414]	South wall, two bricks with inner core of stone. 3.5m x 1.1m x 0.3m. Wall
[415]	Red brick floor of flue between [413] and [414], 1.1 m wide, truncated at SE end. Central divider of a single line of fire brick set into it. Brick floor of Flue
[416]	Deposit of blue and brown sand over floor [415] – 0.1m thick In-situ deposit from abandonment
[417]	Rubble fill of flue – brick and stone and mortar and cinder – same as construction materials of flue from its demolition. 0.2 m thick Rubble fill
[418]	South wall of flue – 0.3 m wide, 0.1m height survives. Firebricks over concrete base. Forms end wall of flue at south end. Flue
[419]	Remains of structural features – not fully excavated. Internal features of building
[420]	Large structural wall – outer wall of building. Stone and mortar some large worked stone used. 0.9m wide, 5m length visible. N-S orientation. Structural wall
[501]	Brown grey sandy clay silt – 0.2m Topsoil
[502]	Compressed rubble layer, 0.2-0.4m thick Made ground
[503]	Yellow/brown sandy clay and occasional cinder/rubble, 0.2-0.4m Made ground
[504]	Remains of sandstone and mortar wall, NE-SW orientation. Sandstone wall
[505]	Sandstone and mortar feature

	Unidentified structural feature
[506]	Large stone and mortar wall, NW-SE orientation. Truncated at south end, 7m x 0.9m x 1.0 m. Large structural wall
[507]	Red brick and pale brown mortar feature Internal feature within [506]
[508]	Brick walls parallel with settings for wooden beams every 0.45m. NE-SW orientation, red/yellow brick and brown mortar, 0.5m wide, two bricks. Truncated by modern drain. Internal brick walls
[509]	Fill of rail platforms, mix of rubble and cinder, fairly loose – lots of brick, stone, wood etc. 0.55m Fill of rail platforms
[511]	Brick walls parallel with settings for wooden beams every 0.45m. NE-SW orientation, red/yellow brick and brown mortar, 0.5m wide, two bricks. Truncated by modern drain. Internal brick walls
[512]	Brick walls parallel with settings for wooden beams every 0.45m. NE-SW orientation, red/yellow brick and brown mortar, 0.5m wide, two bricks. Truncated by modern drain. Internal brick walls
[513]	Brick walls parallel with settings for wooden beams every 0.45m. NE-SW orientation, red/yellow brick and brown mortar, 0.5m wide, two bricks. Truncated by modern drain. Internal brick walls
[514]	Brick walls, rail platform, creating an open space below the rails, parallel brick walls, 1m apart with fittings. Possible inspection pit
[515]	Brick walls, rail platform, creating an open space below the rails, parallel brick walls, 1m apart with fittings. Possible inspection pit
[516]	Internal feature of stone and mortar between [511]/[510] and [512]/[513]. End of wall or square platform. 1m x 1m visible. Internal feature
[517]	Red brick and brown mortar box, 0.5m x 0.7m Red brick box
[518]	Huge stone wall, mix of worked and unworked stones, orientated NE-SW. Stones 1.5m x 0.5m x 0.7m. Well faced with deposit of soft yellow sand (519) against. Break filled with brick wall [520]. 7m x 1.2m x 2.3m. Huge structural wall
[519]	Yellow sand Foundation material
[520]	Double wall of bricks with gap between filling a hole in wall [518]. Total width of 0.75m, 1m high. Repair of [518]
[521]	Rubble and brown sandy clay within [518] Rubble fill
[522]	Tarmac road, 1.8m below ground surface. Cambered road surface with cobble drain [523]. Orientation NE-SW. Road surface
[523]	Cobbled drain/kerb. 0.4m wide, similar to that found in Trench 3 Cobble drain.
[601]	Brown grey sandy clay and silt – 0.2 m Topsoil
[602]	Grey sand – 0.1 m Made ground
[603]	Compressed rubble in mixed bands – 0.7m – 2.4m Made ground
[604]	Possible well – timbers and sheets of corrugated iron over a waterlogged area – worked stone fragments and pieces of mosaic. Possible well
[701]	Brown grey sandy clay and silt 0.3m thick Topsoil
[702]	Compressed rubble – 0.2-0.3m thick Made ground
[703]	Compressed yellow brown sandy clay, occasional rubble and cinder Made ground
[704]	Stone and mortar wall – structural, NE-SW orientation. 0.9m wide, 2m length.

	Wall of structure, probably same as in Trench 5
[705]	Stone and mortar walls, forming a corner, same construction of [704]. Probably same structure as [704]/[706]
[706]	Stone and mortar walls, forming a corner, same construction of [704]. Probably same structure as [704]/[705]
[707]	Brick wall supporting wooden beams over central chamber, same as those in Trench 5. Brick wall
[708]	Brick wall supporting wooden beams over central chamber, same as those in Trench 5. Brick wall
[709]	Brick wall supporting wooden beams over central chamber, same as those in Trench 5. Brick wall
[710]	Brick wall supporting wooden beams over central chamber, same as those in Trench 5. Brick wall
[711]	Brick wall supporting wooden beams over central chamber, same as those in Trench 5. Slightly different brick laying style forming same structure. Brick wall
[712]	Brick wall supporting wooden beams over central chamber, same as those in Trench 5. Slightly different brick laying style forming same structure. Brick wall
[713]	Brick wall, same construction of others. Perpendicular wall to train parking bays. Wooden beams set into it at 1m intervals. 0.5m x 5m length Brick wall
[714]	Brick wall – more modern materials, probably still part of train parking bays. 0.75 x 0.5 m. Possible repair to outer wall
[715]	Tarmac road surface Tarmac road

APPENDIX 3: PHOTOGRAPHIC REGISTERS

Frame	Description	From
1	Registration shot	-
2	Trench 1 Post-excavation shot	E
3-5	Trench 1 Railway turntable – after machine uncovered	Various
6	Trench 1 concrete surface and possible rail features	SW
7	Trench 2 Post-excavation shot	E
8-9	Possible features Trench 2	Various
10-17	Trench 1 Train turntable [003] Various shots	Various
18-21	Concrete surface and possible rail features	Various
22-24	Concrete surface	Various
25-27	Deposit of rubble over road in Trench 7	S
28-30	Road surface	S
31-36	Road in Trench 5	Various
37-42	Deep wall in Trench 5	SE
43-45	Deep sounding through rubble made ground Trench 6	S
46	Trench 3 General	E
47-49	Modern wall [315] at East end of Trench 3]	E
50-53	Road/surface at East end of Trench 3 [312], [313], [314]	Various
54-57	Cobble drain [313] next to wall [312]	S
58-59	Brick/concrete feature [311]	W
60-62	Brick culvert [310]	E
63-64	Wall [308] and surfaces [309]/[307]	E
65-66	Modern drainage channel cutting archaeology	E
67-68	Wall [306]	E
69-70	Wall [304]	E
71	Trench 3 General from West	W
72-73	East end Trench 3 Road/surface/wall/drain	W
74-79	West end of Trench 2 Railway sleepers	W
80-81	Railway sleeper detail shot	Above
82-84	Stone platform amid sleepers	N
85	Waterlogged middle section of Trench 2	W
86-93	Various features at East end Trench 2	Various
94-98	Curving sandstone and mortar wall Trench 2	NE

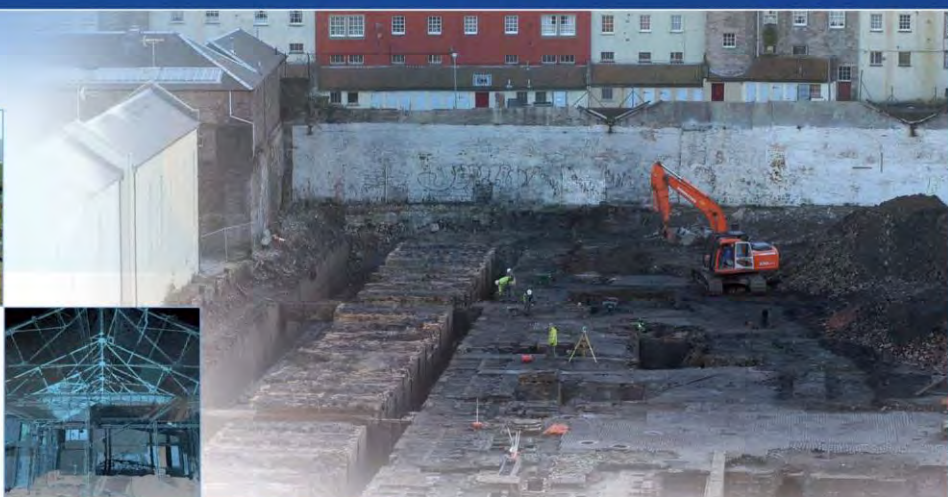
Meadowbank Phase 2, Edinburgh: Archaeological Evaluation Data Structure Report

99-100	Worked stones – rail fittings	SE
101-103	Brick channel/trough/trench – Trench 5	E
104-105	Brick channel/trough/trench – Trench 5	N
106-107	Mosaic fragments from rubble Trench 6	-
108	Worked stone in rubble	-
109-110	Trench 6 possible well and general trench shot	W
111-112	Trench 2 West end	Various
113-115	Road through Trench 3	W
116-119	Brick flue system Trench 4	Various
120	Possible culvert – south end Trench 4	S
121-122	Stone flue system Trench 4	NW
123-139	Photos of features of Trench 4 – better light and cleaner. From south to north. Detail of brick flue system	Various
140	Trench 5 Post-excavation	S
141	Trench 5 Brick feature – unexcavated	W
142-151	Rail supports from south to north	Various
152	Small brick feature – Trench 5 not excavated	E
153	Ceramic pipes next to large wall [518]	N
154-159	Wall [506]	Various
160-168	Wall [518]	Various
169	Trench 7 Post-excavation	S
170-173	Stone and mortar walls – south end Trench 7	Various
174-182	Rail supports Trench 7 south to north	Various
183-188	Rail turntable Trench 1	Various
189-194	Rail inspection pit – Trench 1 – Mid trench	Various
195-200	Trench 1 extension – rail supports next to turntable	Various
201-205	Stone rail turntable in Trench 2 extension	Various

APPENDIX 4: 'DISCOVERY AND EXCAVATION IN SCOTLAND' REPORT

LOCAL AUTHORITY:	City of Edinburgh
PROJECT TITLE/SITE NAME:	Meadowbank Sports Centre
PROJECT CODE:	24273
PARISH:	Edinburgh
NAME OF CONTRIBUTOR:	Lindsay Dunbar
NAME OF ORGANISATION:	AOC Archaeology Group
TYPE(S) OF PROJECT:	Evaluation
NMRS NO(S):	N/A
SITE/MONUMENT TYPE(S):	N/A
SIGNIFICANT FINDS:	None
NGR (2 letters, 6 figures)	NT
START DATE (this season)	9 th April 2018
END DATE (this season)	20 th April 2018
PREVIOUS WORK (inc DES)	No
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	<p>An archaeological evaluation was undertaken by AOC Archaeology Group within the Phase 2 development area of the former Meadowbank Stadium, Edinburgh. The evaluation was primarily designed and implemented in order to establish the presence and degree of preservation of the mid 19th century 'St Margaret's Station North British Railway Works and Locomotive Department' and the early 15th century St. Margaret's Well which had disturbed during the construction of the railway depot.</p> <p>The trenching opened amounted to some 1100 m² across seven trenches with significant remains belonging to the railway depot uncovered in six of these trenches. The remains unearthed included sandstone walls, brick walls, railway track fittings, road surfaces and remains of both the original and later mid-20th century locomotive 'turning platform'. The presence of live services meant the cartographic position of St. Margaret's Well could not be trenched and no evidence for the well was found elsewhere.</p> <p>The evaluation has shown the later 20th century demolition and redevelopment of the railway depot ahead of the 1970 Commonwealth Games left substantial remains including ground level surfaces as well as subsurface foundations. A programme of mitigation works is liable to be required by CECAS if preservation <i>in situ</i> is not possible.</p>
PROPOSED FUTURE WORK:	Yes
CAPTION(S) FOR ILLUSTRATIONS:	N/A
SPONSOR OR FUNDING BODY:	Thomas and Adamson

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ARCHIVE LOCATION	Archive to be deposited in NMRS



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