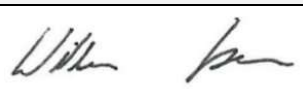
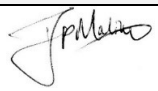
CPAT Report No. 1934

Trevor Basin Corrugated Shed

Historic Building Recording

YMDDIRIEDOLAETH ARCHAEOLEGOL CLWYD-POWYS
CLWYD-POWYS ARCHAEOLOGICAL TRUST

Organisation	Clwyd-Powys Archaeological Trust
Client Name	Canal and River Trust
CPAT Project No	2678
Project Name	Trevor Basin Corrugated Shed
Project Type	Historic Building Recording
Project Manager	Tim Malim
Project Supervisor	Will Logan
Grid Reference	SJ 27153 42254
County/LPA	Wrexham County Borough
Planning Reference	N/A
CPAT Report No	1934

Report prepared by:	**Report checked by:**	**Report approved by:**
		
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Report Status	Final	
Confidential until	N/A	

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The Clwyd-Powys Archaeological Trust is a Registered Organisation
with the Chartered Institute for Archaeologists

CONTENTS

Summary

In February 2023 the Clwyd Powys Archaeological Trust undertook a historic building recording of a metal-framed corrugated-iron shed located on the eastern side of the Trevor Basin. The building is not recorded on historic mapping but appears to have been constructed in the early to mid-20th century, possibly reusing components from a 19th century industrial building or structure. It may have originally been a workshop, later converted into a garage.

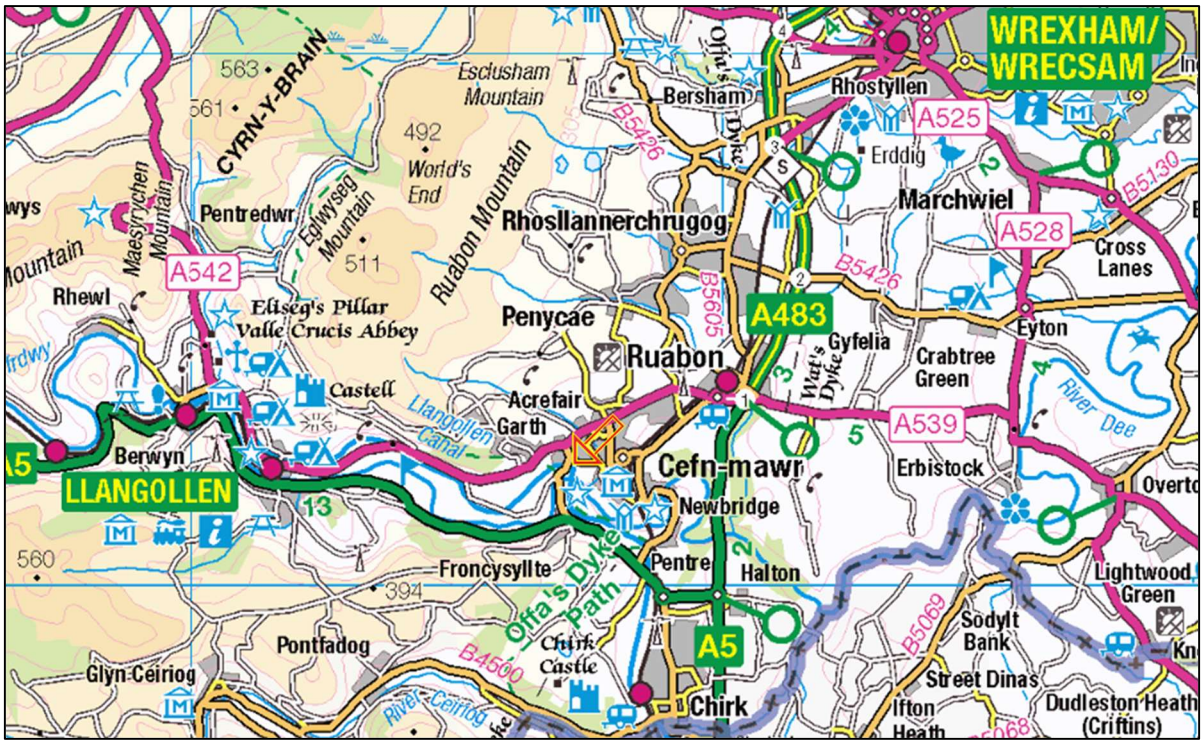
Crynodeb

Fis Chwefror 2023, bu Ymddiriedolaeth Archaeolegol Clwyd-Powys wrthi'n cofnodi adeilad hanesyddol, sef sied haearn rhychog â ffrâm fetel ar ochr ddwyreiniol Basn Trefor. Nid yw'r adeilad wedi'i gofnodi ar fapiau hanesyddol ond cafodd ei godi, mae'n debyg, ar ddechrau neu yng nghanol yr 20fed ganrif, o bosibl gan ailddefnyddio cydrannau o adeilad neu strwythur diwydiannol o'r 19eg ganrif. Mae'n bosibl mai gweithdy oedd yn wreiddiol, a droswyd i greu garej yn ddiweddarach.

1 Introduction

1.1. In February 2023 the Field Services Section of the Clwyd-Powys Archaeological Trust carried out a Historic Building Recording in connection with the demolition of an outbuilding as part of wider redevelopment works at the Trevor Basin, Wrexham (Fig. 1, SJ 27158 42256).

1.2. Following consultation with Mark Somerfield (Heritage Advisor for Canal & River Trust West Midlands) it was suggested that a level 2/3 Historic Building Survey (as defined by Historic England) would comprise an appropriate programme of mitigation in respect of the proposed demolition of this structure.



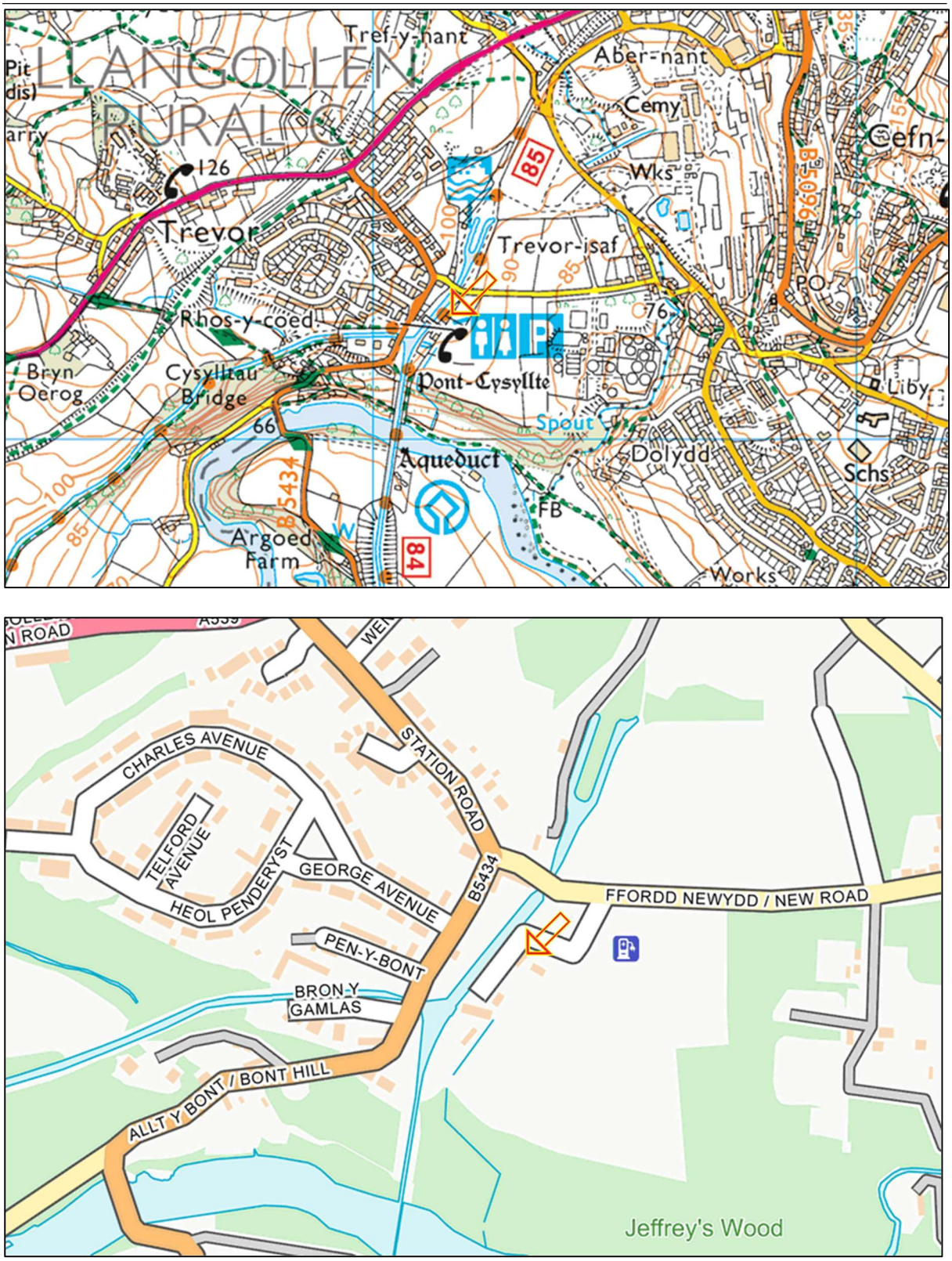


Fig. 1 Location of the outbuilding

2 Historical Background

2.1. The historical information in Paragraphs 2.2-2.4 is reproduced from the Heritage Statement and Impact Assessment carried out by Archaeological Research Services Ltd (Brown, 2021, p6-10).

2.2. The Ellesmere Canal was originally envisaged as a means of linking industry and agriculture in Shropshire and mid and north-east Wales to the major port cities of Bristol and Liverpool. A route for the proposed canal was authorised by Act of Parliament in 1793. Sections of the canal to the south linking Shrewsbury to Chirk Bank via Llanymynech, and to the north linking Chester to the Mersey were completed by 1798. Immediately to the west of Chirk Bank the route had to negotiate the steep sided Ceriog valley, which was achieved by the construction of Chirk Aqueduct and the adjacent tunnel, which were completed by 1801. Further north the Pontcysyllte Aqueduct, which ran across the Dee Valley was completed by 1805. However, plans for the continued expansion of the canal network to link up with the existing northern branch stalled during this period, and the canal terminated approximately 400m north of the Pontcysyllte Aqueduct at the Trevor Basin. A canal from Llangollen ran east along the northern side of the Dee Valley and terminated at Trevor, with the connection completed in 1802, this also provided a source of water for the canal via the Horseshoe Falls on the River Dee. A canal section was excavated to provide transport links to industrial sites located at Cefn Mawr and Plas Kynaston to the east of the Trevor Basin during the 1820s.

2.3. The construction of the Ruabon Brook Tramway was concurrent with the construction of the Pontcysyllte Aqueduct. This linked an iron foundry (which also supplied the rails for the tramway) and two collieries at Plas Kynaston to the Trevor Basin. The tramway was subsequently extended during the first decade of the 19th century and again in 1820, but gradually fell out of use during the following decade, due to a decline in mineral traffic.

2.4. This tramway was superseded by a standard gauge railway during the 1860s. The railway and the canal were then under the ownership of the Shropshire Union Railway & Canal Company (SUR&CC) which formed in 1846. The railway was leased from the SUR&CC by the London and North Western Railway (LNWR). The LNWR replaced the tramways from 1861 and constructed an engine shed at the Trevor Basin to house a shunting engine. The LNWR also constructed a large transfer shed, which was constructed over a section of the canal, to allow goods to be loaded or unloaded between railway and waterborne traffic. The lease passed from the LNWR to the Great Western Railway (GWR) in 1896, but the transfer shed and sidings remained the property of the SUR&CC. The transfer shed went out of use in 1902.

2.5. The canal remained in use as a water source for potable and industrial purposes during the 20th century. Plas Kynaston Chemical Works which was founded in 1867, produced over 50% of the world's supply of phenols by 1910 (Brown, 2021, p11). During the First World War it produced phenol derivatives for munitions including trinitrophenol (TNP), also known as picric acid. It is asserted that the canal was utilised during the war to transport explosive products for reasons of safe handling (www.plaskynastoncanalgroup.org, accessed March 2023).

2.6. The transfer of goods via canal ceased by 1920, due to the poor state of the canal, which had become unnavigable. By the mid-20th century the Ellesmere Canal was still in use as a feeder for Hurleston Reservoir in Cheshire. The rise in popularity of canal boats for recreational use post World War Two and the scenic aspects of the Llangollen and Ellesmere canals resulted in the Trevor Basin becoming a hub for narrowboat hire companies during this period.

Fig. 2 Annotated extract from the 1872 Ordnance Survey Map showing the position of the shed in relation to the Trevor Basin

2.7. The 1872 Ordnance Survey plan (Fig. 2) records the area where the corrugated shed is located in a recognisable modern form. Trevor itself comprised a dispersed rural settlement at this time with most houses located along the road between Ruabon and Llangollen (modern A539). The wharves and the layout of the roads is unchanged however. The plan records the layout of the railway lines and sidings running down to the North Wharves and the Trevor Basin to the south of it. The Transfer Shed and the canal branch running to Plas Kynaston is also depicted. Immediately to the south of the shed was a pair of dry docks used for boat building with a swing bridge across the junction with the towpath. A house, now referred to as Dock Cottage was located to the north-east of this.

2.8. Subsequent mapping records the development of Trevor and the decline of the transfer docks. The 1961 Ordnance Survey Plan is the earliest record of the corrugated shed (Fig. 3). The building is located on a triangular plot adjacent to the Basin with a small building to the south of it. It appears to have been constructed as part of the dry dock complex of buildings.

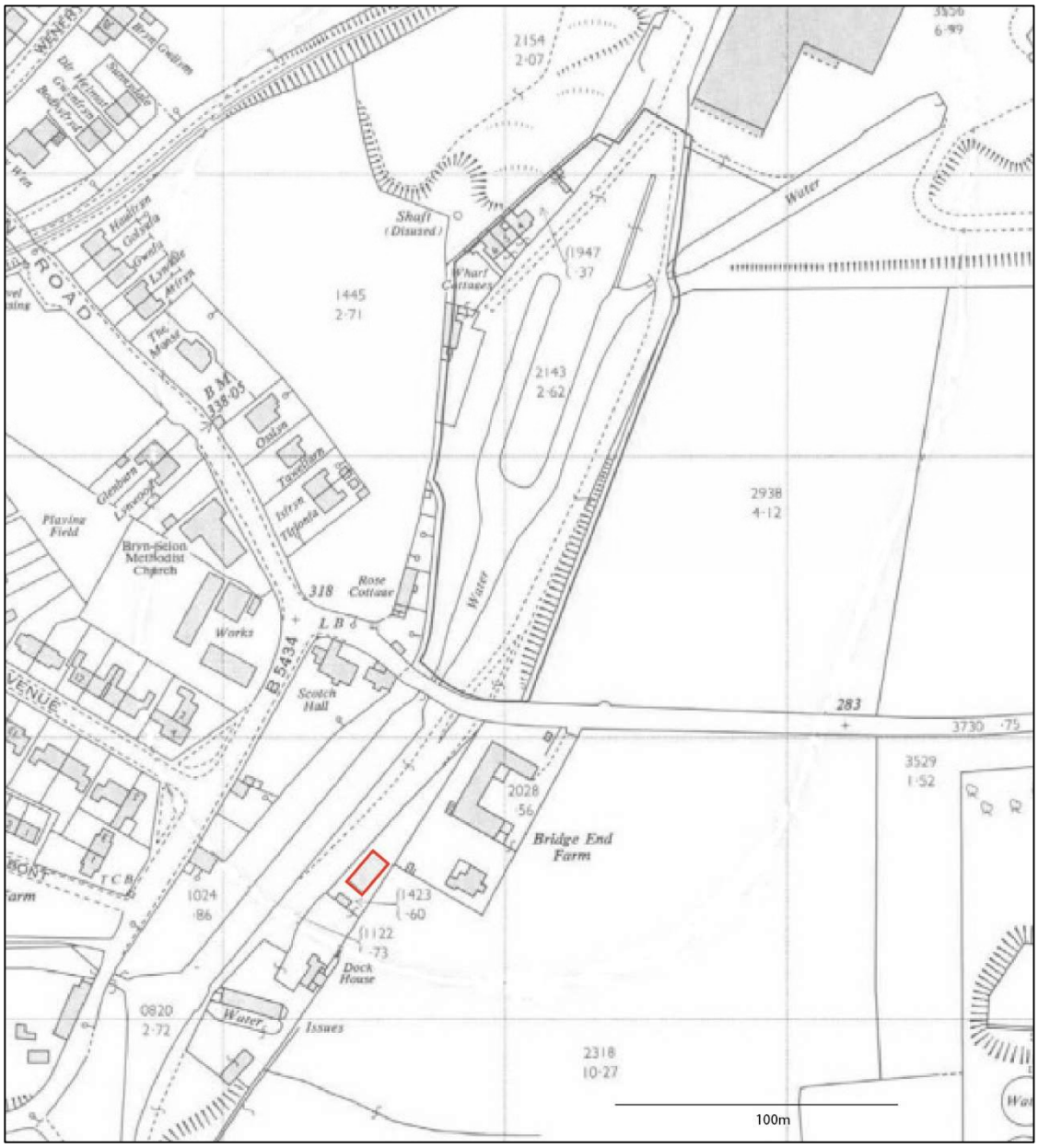


Fig. 3 1961 National Grid Plan

3 Building Recording

3.1. The Historic Building Recording was carried out on the 16th of February 2023 in accordance with the Chartered Institute for Archaeologists' (CIfA) (2020) *Standard and Guidance for the Archaeological Investigation and Recording of Standing Buildings or Structures*. Contact prints of all photographs are included as Dwgs 1-2, the plan and frame elevation are recorded in Dwg. 3 and photographic locations are recorded in Dwg. 4, all of which can be found at the end of this report.

3.2. The corrugated shed comprised a single storey rectangular building measuring 12.6m by 7m oriented broadly north-south on a parallel alignment with the canal basin 13m to the west. The height to the eaves was 2.6m. The walls and roof were clad in corrugated iron. The floor of the shed was largely brick, some of which were frogged and stamped with the makers mark 'Llay Hall Wrexham', referring to a local brick manufacturer active until 1975. A vehicle inspection pit with a concrete surround was located in the north-east corner of the building and was probably a later insertion.

Fig. 4 South end of the building Photo CPAT 5041_011

Fig. 5 West elevation of the building Photo CPAT 5041_003

3.3. There were large double doorways in each gable end measuring 3.6m in width (Fig. 4). The west elevation contained a doorway (Fig. 5) and two steel-framed casement windows, each 2m in width (Fig. 7). A ventilator was inserted in the east elevation and a small kiosk or outbuilding was located against the northern end.

3.4. The shed was subdivided into three bays, each 4.2m in length. The roof frames were constructed using L-section steel beam (Dwg. 3). The northern-most frame had an additional support under the apex, constructed from two L-section beams bolted together. The support brace on this beam was off centre and there was a mesh infill in half of the frame. The roof was carried on tubular members which were attached to the roof cladding via U-bolts.

Fig. 6 Interior of the shed viewed from the south Photo CPAT 5041_012

3.5. The roof frame was supported by tubular members (Figs. 6, 8 and 9) which were made of cast iron, with a round base which was bolted into the floor. The top mount was rectangular and bolted to the roof beams. The wall cladding was attached via horizontal tubes, bolted to the vertical members and attached to the cladding by U-bolts.

Fig. 7 Window frame viewed internally Photo CPAT 5041_024

Fig. 8 Upper cast tubular support

CPAT Photo 5041_018

Fig. 9 Lower cast tubular support

CPAT Photo 5041_031

3.6. The interior of the building was wired for electrics with rigid cable runs and mounting for strip lighting.

4 Conclusions

4.1. The corrugated shed was probably constructed during the mid-20th century. It was originally considered that it may have been a pre-fabricated building of the type used during the First and Second World Wars, but it seems more likely it was constructed piecemeal utilising materials that were locally available. The cast tubular wall members were of particular interest. They are similar in appearance and design to those used in railway architecture and it is possible that they were reused components from the goods transfer shed or another railway building in the nearby vicinity. The goods shed itself was extant on 1930s mapping but had gone by 1961. A similar roof support design is shown in Fig. 10.

4.2. The shed is of uncertain date, but is dated via mapping to the early-mid 20th century. Mapping pre-dating the 1960s does not record the building but the Ordnance Survey mapping during the interwar years was Provisional and derived from earlier editions so may not necessarily be accurate.

4.3. The shed may have been associated with the dry dock, as an additional workshop or repair shop. It could also have been used by a boat hire company later in the 20th century as a repair shop and also a garage for support vehicles for the business.

Fig. 10 Interior shot of the Forth Goods station in Newcastle-on-Tyne. Note the design of the lower roof frame supports which is similar to those used in the building on the Trevor Basin

5 Sources

Online sources

www.plaskynastoncanalgroup.org/canals accessed March 2023

Unpublished sources

Brown, A., 2021. *A Proposed New Boat Hire Centre at Trevor Basin, Pontcysyllte Aqueduct WHS, Wrexham: Heritage Statement and Impact Assessment*. ARS Ltd Report 2021/76

Cartographic sources

1879 Ordnance Survey 6" Map Denbighshire Sheet 35

1961 Ordnance Survey National Grid Plan 1:2500 Denbighshire Sheet 24 SE

6 Archive deposition Statement

- The project archive has been prepared according to the following guidance:
- *CIfA Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives guidance* (2020b).
- *Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs) Version 2* (2022).
- *National Standard and Guidance for Collecting and Depositing Archaeological Archives in Wales* (2017).
- *CPAT Archive Policy and Selection and Retention Guidelines* (2022)
- *CPAT Digital Data Management Plan* (2022)

6.1.

Archive Summary

Archives Officer	Sophie Watson
HER Enquiry No	N/A
HER Event PRN	215556
OASIS Reference No	N/A
Digital Archive Repository	RCAHMW
Documentary Archive Repository	N/A
Finds Archive Repository	N/A
Accession Numbers	N/A

Digital Archive

Sub folder	Contents	Retained by CPAT	Selected for Archive
Finds data	N/A	0	0
GIS data	N/A	0	0
Metadata	2678_Metadata.docx 2678_RCAHMW_Archives_Deposit_Agreement.docx	1 1	1 1
Photography		0	0
Film_0000	5041-0001.jpg	38	38
Report	2678_CPAT_Report_1934.docx 2678_CPAT_Report_1934.pdf	1	1

Appendix 1: CPAT WSI 2678

1 Introduction

1.1. The Field Services Section of the Clwyd-Powys Archaeological Trust has been instructed by Mark Somerfield, Heritage Advisor for the Canal and River Trust to undertake a Historic Building Recording in connection with the demolition of an outbuilding as part of wider redevelopment works at Trevor Basin, Wrexham (Fig. 1, SJ 27158 42256).

1.2. The outbuilding is a pre-fabricated shed comprising a steel frame, clad with corrugated iron sheathing, believed to have been constructed in the early to mid-20th century.

1.3. Following consultation with Mark Somerfield it was suggested that a level 2/3 Historic Building Survey (as defined by Historic England) would comprise an appropriate programme of mitigation in respect of the proposed demolition of this structure.

2 Objectives

2.1. The objectives of the survey are:

- to describe and record all of the key internal and external components of the outbuilding so that a permanent record survives prior to any development commencing. This will be completed by means of background research, a desktop study and building survey, equivalent to a Level 2/3 Building Survey, as defined by Historic England.
- to prepare a report outlining the results of the survey;
- to prepare a final publication of the results in an appropriate regional or national journal, depending on the nature and significance of any archaeology.

3 Methodology

3.1. The archaeological works will be conducted according to the Chartered Institute for Archaeologists' (CIfA) *Standard and Guidance for the archaeological investigation and recording of standing buildings or structures* (2020).

3.2. The survey of the shed will take the form of a Level 2/3 building survey as defined by Historic England *Understanding Historic Buildings: a guide to good recording practice* (2016). This level of survey is intended to create a descriptive or analytical record of the building, and will include:

- Background research to find out when it was first erected, and for what function, and subsequent additions or alterations, if documentary and historic map records make this possible,
- Description and photographic record of the exterior and the interior
- Detailed account of type, construction, form, function
- Phasing
- Past and present use and relationship with setting
- Conclusions regarding the building's development and use

4

4.1. The drawn record will be created using either conventional measured survey or total station surveying as appropriate. The end result will include:

- Accurate, measured ground plan, elevations and cross-sections as appropriate

- Phase plans showing the development of the structure

4.2. The photographic survey will be conducted using digital photography with a minimum resolution of 12 mega pixels to include:

- Views of all elevations
- Views of external appearance of building group/setting
- Views of all internal rooms
- Internal and external structural detail
- Fixtures, fittings, machinery, related contents

5 Report

5.1. Following the on-site work an illustrated report will be prepared containing conventional sections to include:

- Non-technical summary
- Location and NGR
- Statutory designations
- Date of record, recorder and archive deposition
- Introduction
- Site location
- Topography and Geology
- Methodology
- Summary of the form, function, date and development of the building
- Desk-based study, including copies of historic maps and photographs where permitted
- Summary description of the building
- Description of the building
- Past and present usage
- Evidence for former existence of demolished structures, removed fittings etc
- Conclusions & Recommendations
- References
- Plans and Elevation Drawings

5.2. The final report will be submitted in high resolution PDF format to the Historic Environment Record Officer (Dr Gary Duckers gary.duckers@cpat.org.uk), Clwyd-Powys Archaeological Trust, The Offices, Coed y Dinas, Welshpool, SY21 8RP for inclusion within the Historic Environment Record.

Data management plan

5.3. The project will be conducted in accordance with CPAT's data management policy. All paper records will be collated, catalogued and labelled with the unique project code. All digital data will follow strict file naming, to include the unique project code, and be sorted into a standard series of sub-folders. The digital data will be catalogued, including a list of file types and relevant software.

6 Site archive

6.1. The overall archive will conform to guidelines described in Management of Research Projects in the Historic Environment (MoRPHE), Historic England 2015, the CIfA (2014) St*andard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives* and *The National Standard and Guidance to Best Practice for Collecting and Depositing*

Archaeological Archives in Wales (NPAAW, 2017) and *Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs) V1* (July 2018).

6.2. The paper and digital archive will be deposited with the National Monuments Record (NMR), RCAHMW, including a copy of the final report. This archive will include all written, drawn, survey and photographic records relating directly to the investigations undertaken. NMR Digital archives will follow the standard required by the RCAHMW (RCAHMW 2015). A copy of the digital archive only will also be lodged with the Historic Environment Record, Clwyd-Powys Archaeological Trust.

7 Resources and programming

7.1. The assessment will be undertaken by a team of skilled archaeologists under the overall supervision of Tim Malim, a senior member of CPAT's staff who is also a member of the Chartered Institute for Archaeologists (CIfA). CPAT is also a CIfA Registered Organisation and as such agrees to abide by their *Code of Conduct* (2019) and the *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology* (2014).

7.2. All report preparation will be completed by or with the assistance of the same field archaeologist(s) who conducted the fieldwork.

7.3. At present CPAT would be in a position to undertake the survey during February - March 2022.

7.4. Requirements relating to Health and Safety regulations will be adhered to by CPAT and its staff.

7.5. CPAT is covered by appropriate Public and Employer's Liability insurance, as well as as Professional Indemnity insurance to the values identified below (copies of certificates available on request):

Public liability insurance: £5,000,000

Employers liability insurance: £10,000,000

Professional indemnity insurance: £1,000,000

Will Logan

30 January 2022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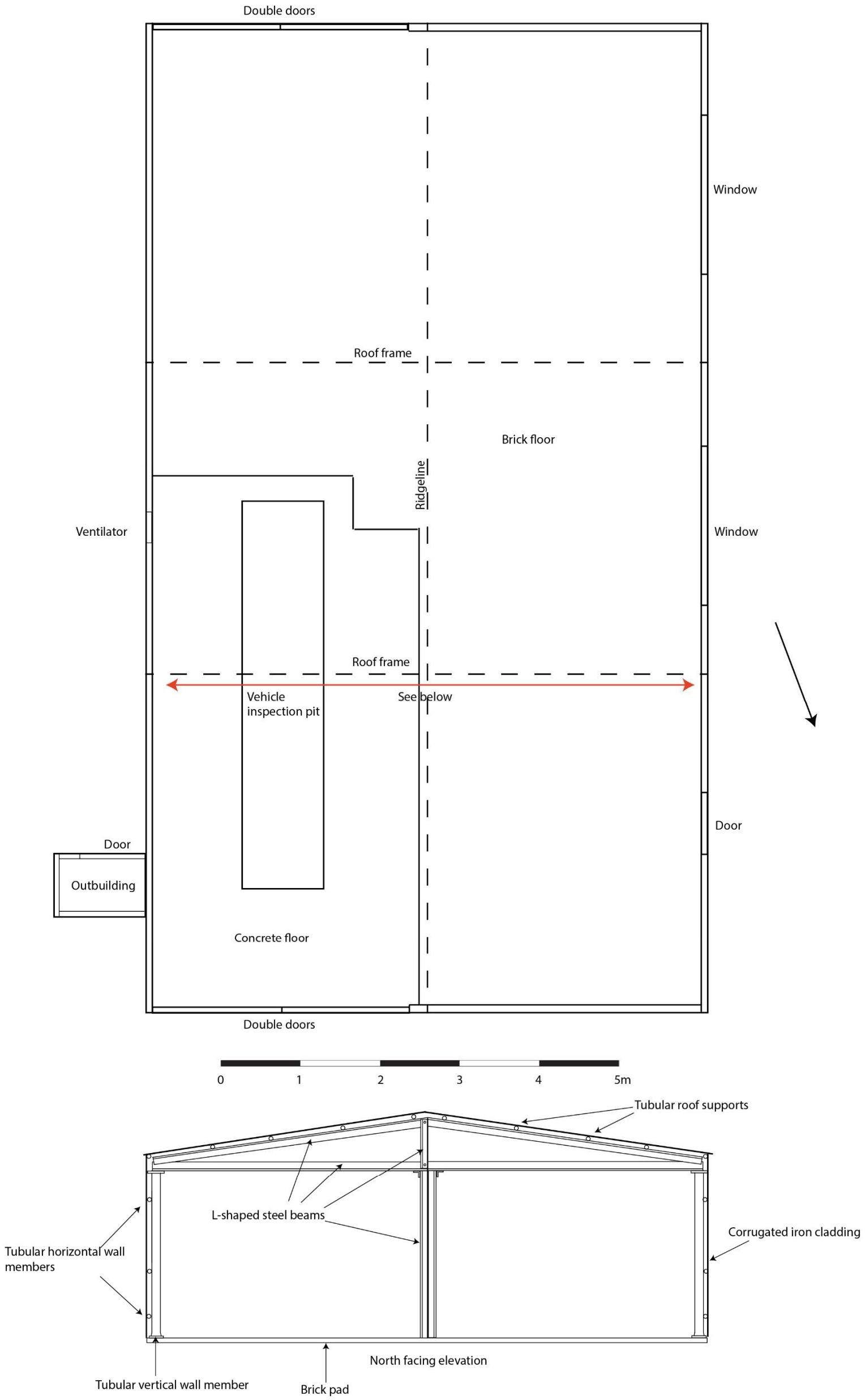
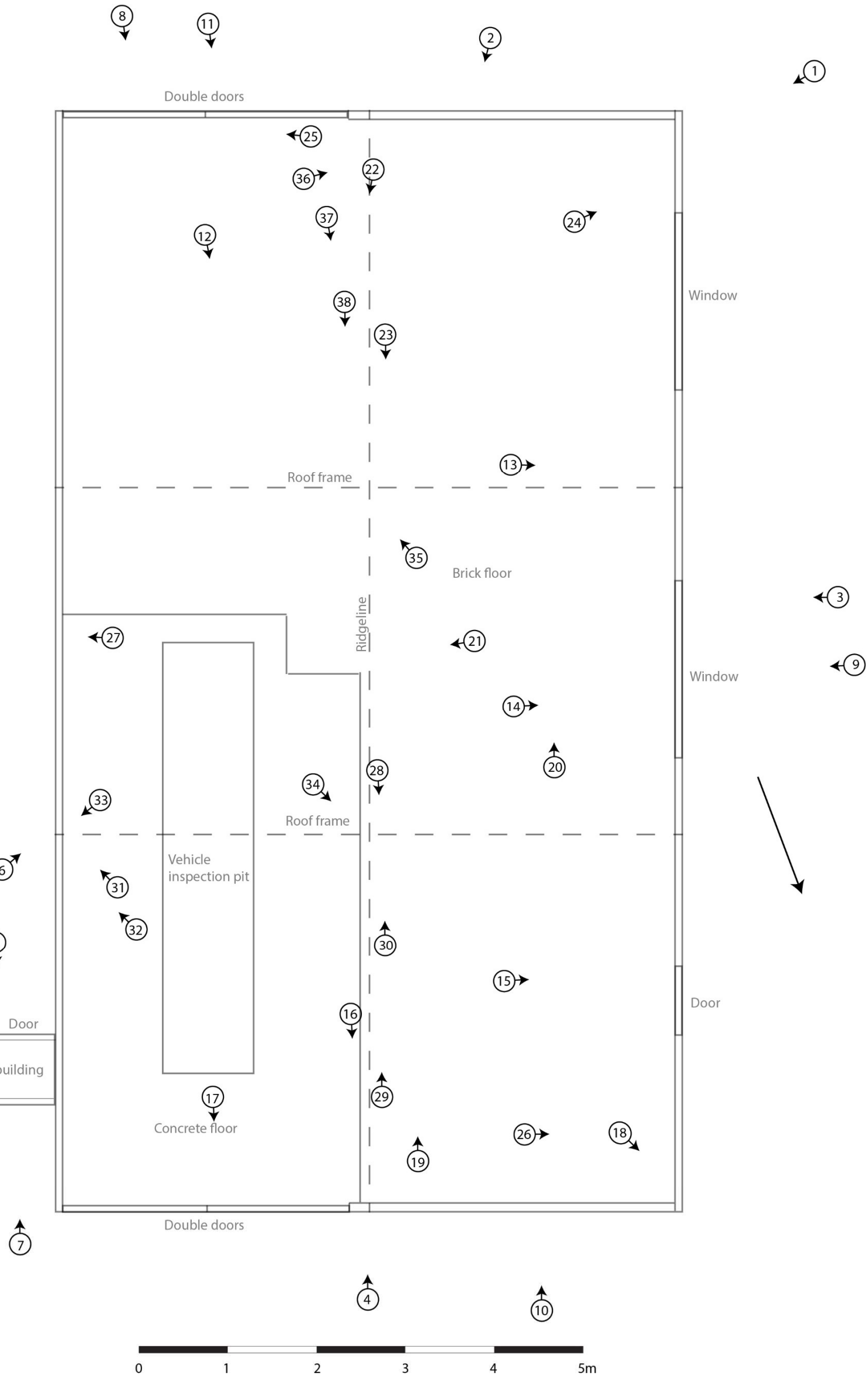
Dwg: 1 Contact Sheet 1

Dwg: 2 Contact Sheet 2



Dwg: 3 Plan and frame elevation



Dwg: 4 Photograph location plan