

Site & Landscape Survey

Geophysical Survey

**National Performance Centre for Sports,** Heriot-Watt University, Riccarton Mains Road, Edinburgh

Walled Garden: Standing Building Survey

Report No. 3272







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National Performance Centre for Sports, Heriot-Watt University, Riccarton Mains Road, Edinburgh

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#### 1. INTRODUCTION

#### 1.1 General

This report presents the results of a standing building survey undertaken by CFA Archaeology Ltd (CFA) in March 2015 within the development area for the proposed National Performance Centre for Sports, Heriot-Watt University, Riccarton Mains Road, Edinburgh (NGR: NT 1777 6929, Fig. 1). The work was commissioned by Heriot-Watt University.

A Written Scheme of Investigation (WSI) dated 14 January 2015 was produced by CFA covering the standing building survey. The WSI was designed to meet the requirements of the City of Edinburgh Council Archaeology Service (CECAS) for a Level 1 building survey of the Walled Garden.

## 1.2 Background

The National Performance Centre for Sports has been granted Planning Permission (Ref. No.1012/P/05). The proposed building footprint will straddle part of the Walled Garden (NMRS NO. NT16NE 57) associated with the former Riccarton House (NMRS NO. NT16NE 10). The Walled Garden is shown on the Ordnance Survey First Edition map (Fig. 2) and on subsequent maps. Greenhouses and structures are shown along the north-western wall outside the building footprint and paths are shown bisecting the interior and around the perimeter, parallel to the wall. Trees and what may be flower beds are depicted. In recent years the area was used as sports pitches and is currently used as a car park.

A phase of trial trenching evaluation was also carried out on the footprint of the proposed centre. The results are presented under separate cover (Suddaby 2015).

## 1.3 Objectives

The objectives of the project were:

To carry out a desk-based assessment to place the walled garden in its historical context.

To conduct a Level 1 standing building survey of the Walled Garden prior to its alteration.

• To produce an illustrated report on the results of the standing building survey.

#### 2. WORKING METHODS

### 2.1 General

Work was conducted with regard to the Chartered Institute for Archaeologists' (CIfA) Standard and Guidance for Historic Building Recording of standing buildings or structures (2014) and the recording levels outlined in Descriptive Specification for Recording Historic Buildings (English Heritage 2006)

Photographic Survey and elevation recording

General shots of the interior and exterior faces of the walls were taken using a Nikon D300. A photographic location plan showing the orientation at which each shot was taken is produced as Fig 3 and cross-referenced to the photographic register (Appendix 1).

A descriptive summary of the wall and extant features including buildings and doorways, include brick size, copings and bond type were recorded onto CFA building recording sheets.

Rectified photographic elevations of the interior elevations of the walled garden have been prepared by the client's architect and are reproduced as Fig 4

#### 3. DESK-BASED ASSESSMENT RESULTS

## 3.1 Cartographic sources

The First Edition Ordnance Survey map of 1853 (Fig 2) and subsequent editions show the layout of the walled garden. Within its interior, the garden is depicted with a central path flanked by two formal gardens. A rectangular conservatory is also shown on the interior south-west facing wall. A second possible glass house is shown on the exterior of the same wall between two buildings (described as Buildings C and D on Fig 3). On the exterior north-facing wall there are four buildings which are still present today (Buildings A-C, Fig 3). The largest building is the Gardener's House attached to the north-west corner of the Walled Garden.

#### 3.2 National Monuments Record of Scotland (NMRS)

The NMRS holds one record for the Walled Garden; Entry NT16NE 57 mentions that the Walled Garden of the former Riccarton House (NT16NE 10) is visible on large scale vertical air photographs, (OS 65/50/233-4, flown 1965).

A Gardeners Cottage attached to the external north-west corner of the Walled Garden is also mentioned in the NMRS as entry number NT16NE 58.33.

## 3.3 Statutory List

Historic Scotland's Statutory List records the Walled Garden (Building Ref 27383) as a Category B listed building. The list is described in full below:

"Early 19<sup>th</sup> century. Rectangular-plan walled garden approximately 100m x 50m. High wall, red-brick interior with squared sandstone rubble exterior facing; ashlar margins and dressings, ashlar slab coping, interior with canted corners. Door in W and S walls. Lean-to garden sheds and stores on exterior N wall, later brick buttresses against exterior N wall. Interior surfaced for football pitch".

The list also mentions Riccarton House (NMRS NO. NT16NE 10) that was demolished in 1958. The former gardener's cottage is listed separately (Ref 27355).

#### 4. BUILDING RECORDING RESULTS

#### 4.1 General

The interior of the Walled Garden is first described followed by exterior descriptions. Each elevation is shown on Fig 4.

## 4.2 Description of the interior elevations

*Interior north-west facing elevation (Elevation A-A in Fig 3, Plates 1-3)* 

The interior north-west facing elevation measures approximately 100m long, 4.5m high and 0.65m thick and is brick-built (English Garden Bond (EGB 3:1, Plate 1) resting on a rubble foundation course. The top of the wall is capped by ashlar sandstone copings. At the centre of the elevation is a doorway (Plate 2) measuring 2.5m by 1.5m and has droved ashlar surrounds. Above the sandstone lintel is a brick-built flat relieving arch made up of sixteen segments.

At the west end of the elevation, located at its corner are a series of seven square openings with sandstone surrounds (Plate 3). Each measures c.0.4m x 0.3m and are splayed inwards. The upper row of five openings run round the canted corner off the elevation and are located above a series of concrete slabs that project of the wall. Two of the openings are below the slabs. Lower down the wall there are a series of square voids that have been in-filled with brick.

*Interior north-east facing elevation (Elevation B-B in Fig 3, Plate 4-5)* 

The interior north-east facing elevation measures approximately 50m long and 4.5m high and is brick-built (EGB 3:1, Plate 4) with ashlar coping stones. The wall has canted corners and falls in height to c.3.5m just above the doorway that is situated approximately 10m from the north-west corner. The doorway (Plate 5) shares the same dimensions and fabric as that described above

*Interior south-east facing elevation (Elevation C-C in Fig 3, Plate 6-8)* 

The interior south-east facing elevation measures approximately 100m long and is brick-built with the same EGB (3:1) and ashlar copings. Approximately 35m from the north-east corner (Plate 6) is a doorway again with the same dimensions as that described above. Above the door towards the wall head, the wall has been embellished with a diamond motif using black bricks.

Approximately 1.5m from the west side of the doorway the wall is constructed of coursed blocks of sandstone almost to its full height (Plate 6). The sandstone section is topped by a series of stone slabs that project off the wall at a slight angle. Each slab has a set of holes drilled in it. The slabs (Plate 7) represent a roof line of a lean-to conservatory and the holes are possibly associated with sockets for cast-iron glazing bars. The slabs are surmounted by three courses of brickwork then capped with ashlar copings. Blocked vents were present along the base of the rubble wall (Plate 8). The presence of the vents indicate that when the wall was constructed a cavity was created between the outer and inner walls allowing the ventilation of the conservatory shown on the 1853 First Edition Ordnance Survey map (Fig 2).

The rubble-built wall extends c. 50m westwards where it meets a much larger doorway that formed the principal entrance into the Walled Garden. The main doorway measures c. 4m by 4m and has sandstone ashlar surrounds. The lintel stone is surmounted by a flat relieving arch. The rest of the wall is featureless.

*Interior south-west facing elevation (Elevation D-D in Fig 3, Plate 9)* 

The interior south-west facing wall is the same build as described above. At the north end there is a barred doorway measuring 2.5m by 1.5m that has droved ashlar surrounds (Plate 9). Above the sandstone lintel is a brick-built flat relieving arch made up of sixteen segments.

## 4.3 Description of the exterior elevations

Exterior south-east facing elevation

The exterior south-east elevation rests at the bottom of a steep bank and is built of red brick (EGB 3:1) throughout its length with ashlar copings (Plate 10). Ashlar quoins are present at each corner. Situated at the west end of the elevation are a set of rectangular splayed openings that are mirrored on the interior of the wall.

The doorway situated towards the east end of the elevation measures 2.5m by 1.5m and has droved ashlar surrounds. Above the sandstone lintel is a brick-built flat relieving arch made up of sixteen segments.

Exterior north-east facing elevation

The exterior north-east facing elevation is brick-built throughout its full length (EGB 3:1). The barred doorway towards the north end of the wall has been blocked with modern brick at its base, presumably when it went out of use. Judging by the lower ground level on the outside of the wall a set of steps was removed and the void created was infilled with brickwork.

Exterior north-west facing elevation

The north-west facing elevation includes three lean-to storage buildings (Buildings A-C) and the Gardner's Cottage (Building D) located at its west end. Building A (Plate 11) measures approximately 30m long and 4m wide. It is constructed of coursed

rubble with a slate roof that is 2m high at its eaves. The fenestration includes wooden casement windows and plank-built doors.

Building B (Plate 12) is approximately 40m long and 4m wide and is also rubble built with ashlar quoins. Its fenestration includes four plank-built doors and six casement windows. A door is present on its west-facing gable.

Building C (Plate 15) measures approximately 10m long and 4m wide with a slightly outshot main elevation. The building has a single casement window and two plankbuilt doors. The gables are featureless.

Building D (Plates 16-17) occupies an L-shaped footprint and is fully described in the Statutory List. The building is attributed to William Burn (c. 1823) and is a single storey building of Tudoresque style. The building has a main pitched roof and lower lean-to roofs where it has been built against the north-west facing elevation.

Situated between Buildings A and B is a pedestrian entrance that is flanked by two large brick-built buttresses. The rubble-faced wall in this location contains a series of blocked hatch vents (Plate 13). Situated between Buildings C and D is a large vehicular opening (Plate 14) that measures c.4m x 4m with ashlar surrounds and a lintel. On the left-hand side (facing) of this entrance is another set of blocked hatch vents. The presence of the hatch vents indicate that when the wall was constructed a cavity was created between the outer and inner walls allowing the hatches to ventilate the conservatory shown on the 1853 First Edition Ordnance Survey map (Fig 2).

Exterior south-west facing elevation

The exterior south-west facing elevation (Plate 18) includes the Gardener's Cottage (Plate 16-17) and is approximately 70m long. The wall is brick-built in EGB 3:1 throughout its length and has ashlar quoins at each corner. The wall is 4.5m high that drops to 3.5m above the pedestrian doorway close to the Gardeners Cottage. The doorway measures 2.5m by 1.5m and has droved ashlar surrounds.

#### 5. CONCLUSIONS

The survey has shown that the Walled Garden is contemporary with the Gardner's Cottage that was built c1823. The Walled Garden is constructed of a uniform red brick laid in EGB. The principal north-west facing elevation has been constructed of both brick and courses of dressed sandstone. Three lean-to buildings (Buildings A-C) and an architecturally ornate former Gardener's Cottage (Building D) have been built against the exterior of the elevation.

The rubble-faced wall that the conservatory was built against had a series of vents present on the external and internal wall faces. These represent the remains of a cavity wall heating and ventilation system. Its is therefore probable that the conservatory was used for growing citrus fruits, as heating was critical for growing citrus fruits, especially through the Scottish winter months. Heating in glasshouses first occurred as early as the mid 17<sup>th</sup> century and was provided by furnaces placed within the structure, but fumes often damaged or killed the plants. By the 18<sup>th</sup> century hot-air flue systems were devised, which dissipated heat slowly through winding flues built into cavity walls. These 'fire

walls' were heated by hot air rising from external furnaces or stoves (Lausan-Higgins, 2010).

Based on the results of the building survey CFA recommend no further work be undertaken. However, it is understood that the final decision rests with CECAS on behalf of the planning authority.

The project archive, comprising all CFA record sheets, maps and reports will be deposited with the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS) and copies of reports will be lodged with the City of Edinburgh Council Sites and Monuments Record.

A summary statement of the results from this project will be submitted for publication in *Discovery and Excavation in Scotland*. An online OASIS entry will also be completed.

#### 6. REFERENCES

English Heritage 2006 'Understanding Historic Buildings: A guide to good recording practice'.

Institute for Field Archaeologists 2014 Standard and Guidance for the archaeological recording of buildings or structures.

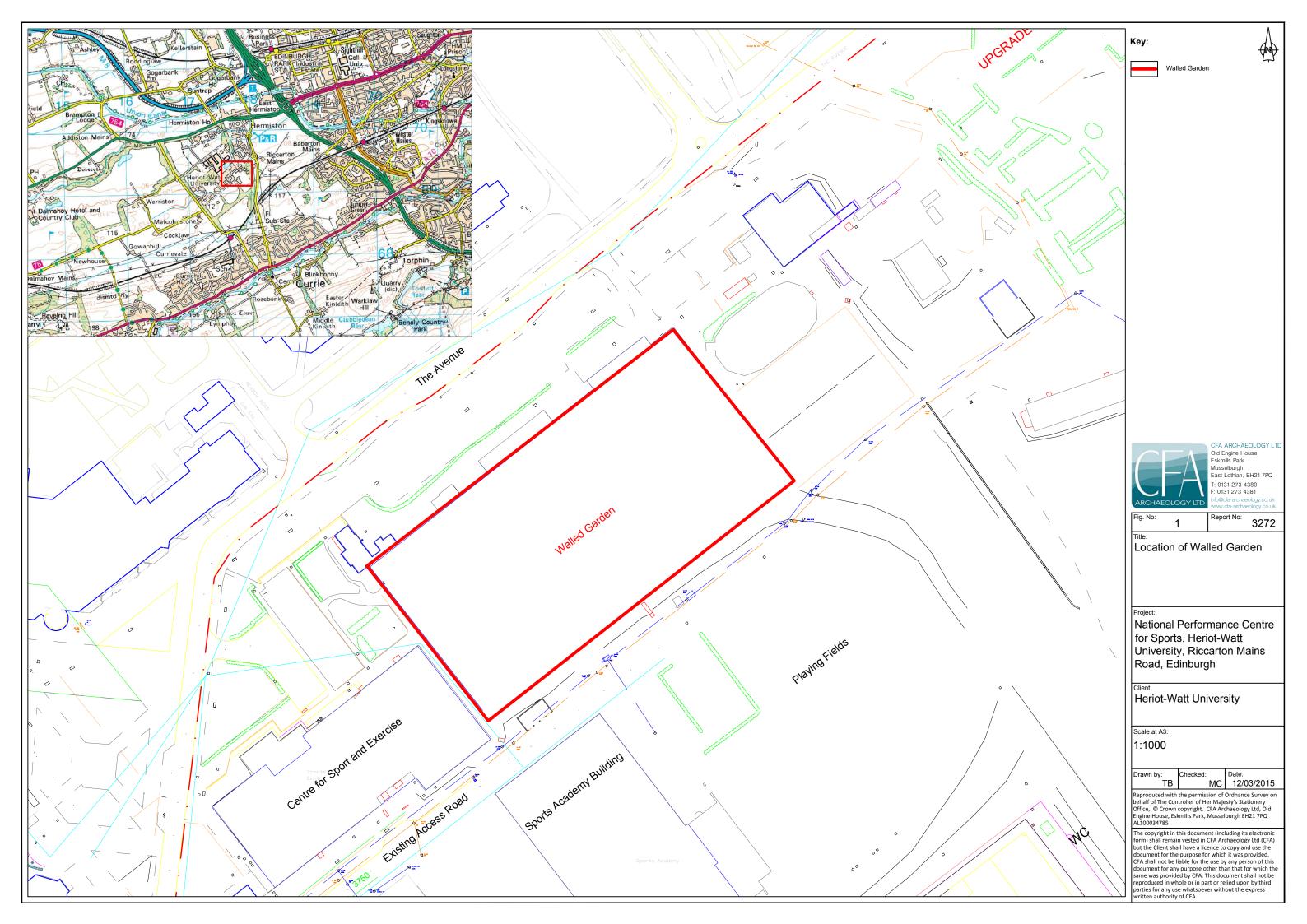
Lausen-Higgins, J, 2010 'A Taste for the Exotic Pineapple Cultivation in Britain' Historic Gardens 10. www.buildingconservation.com

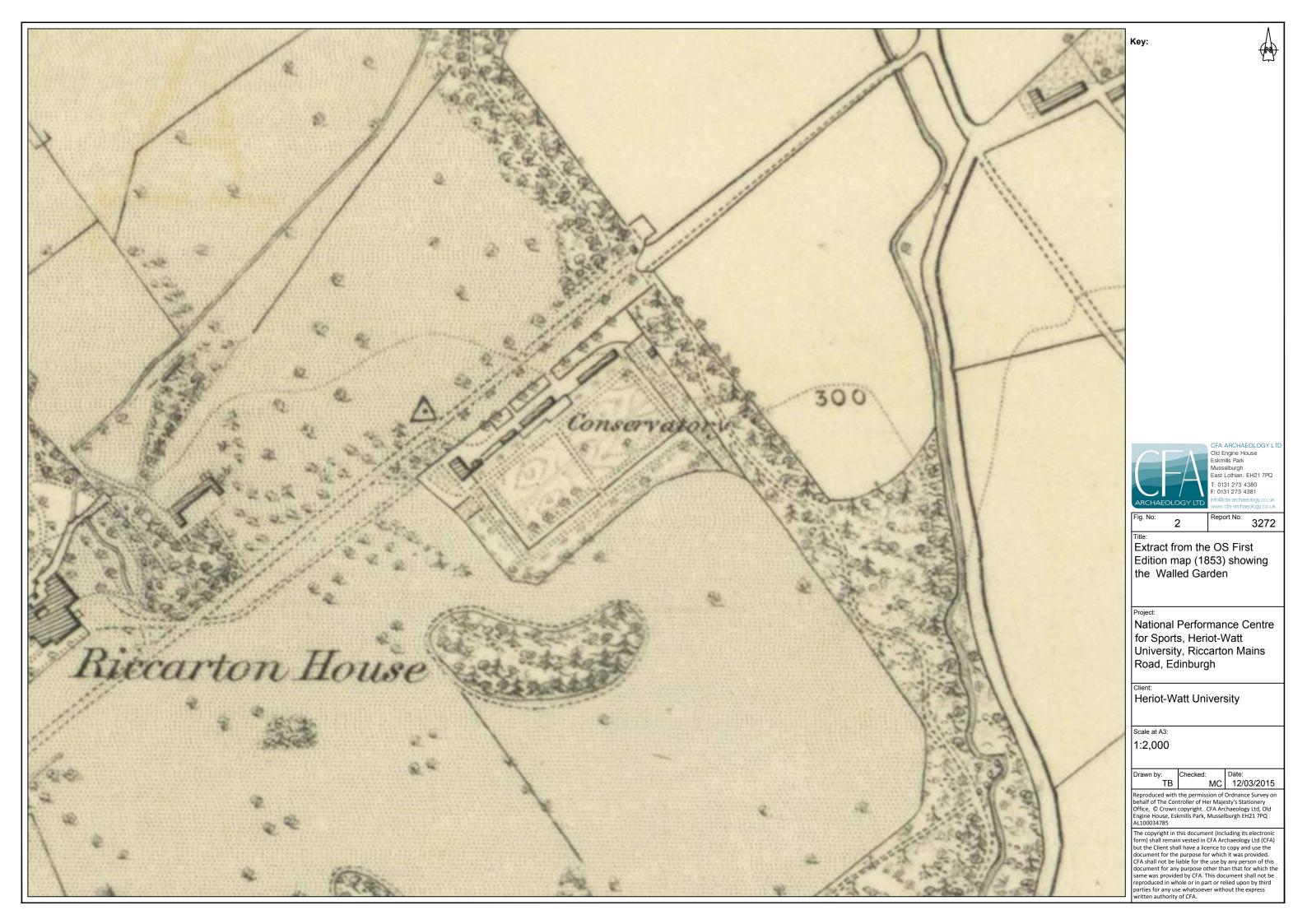
Sudabby, I, 2015 National Performance Centre for Sports, Heriot-Watt University, Riccarton Mains Road, Edinburgh. CFA Archaeological Evaluation Report No. 3264 Unpublished.

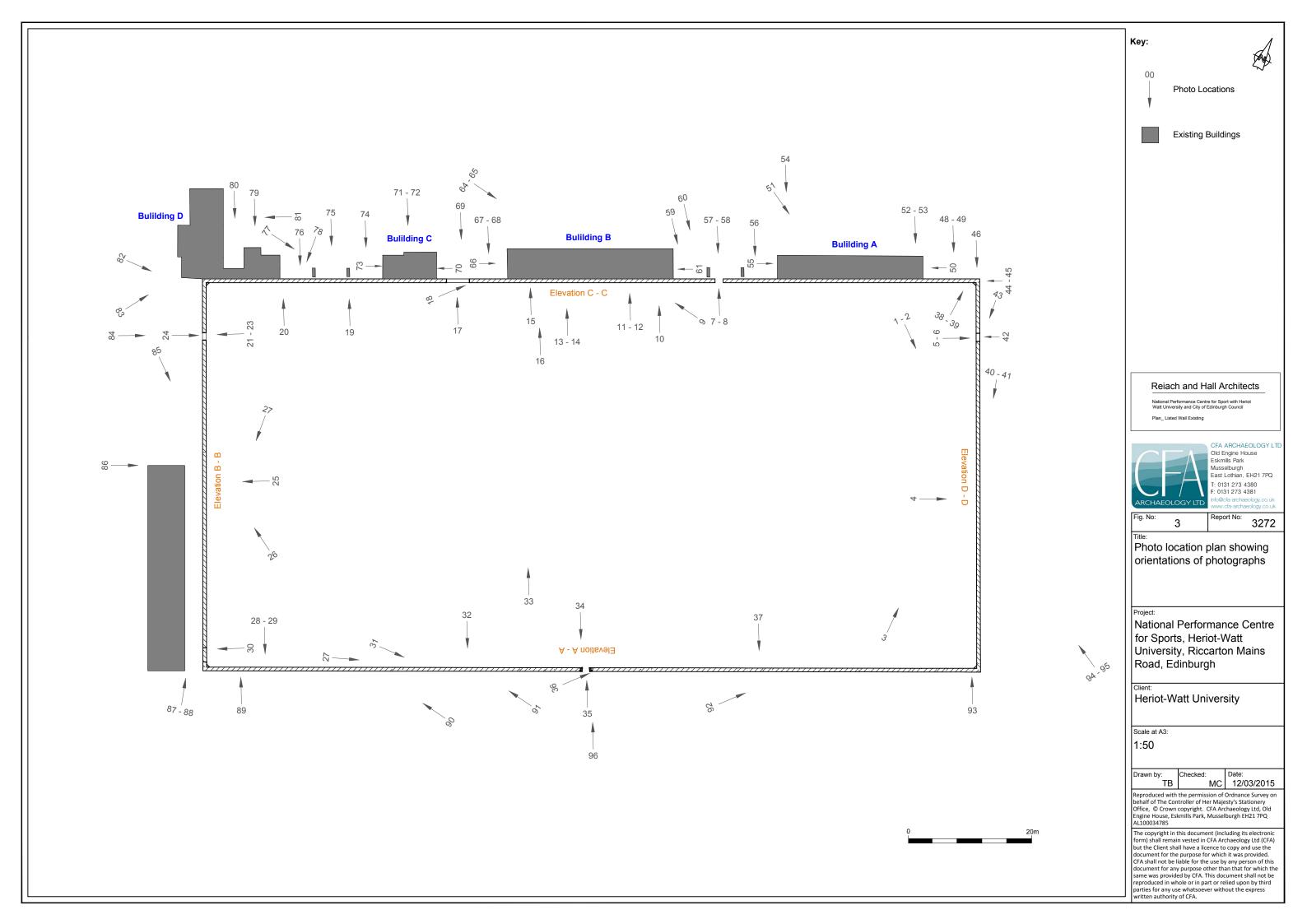
# **APPENDIX 1: PHOTOGRAPHIC REGISTER**

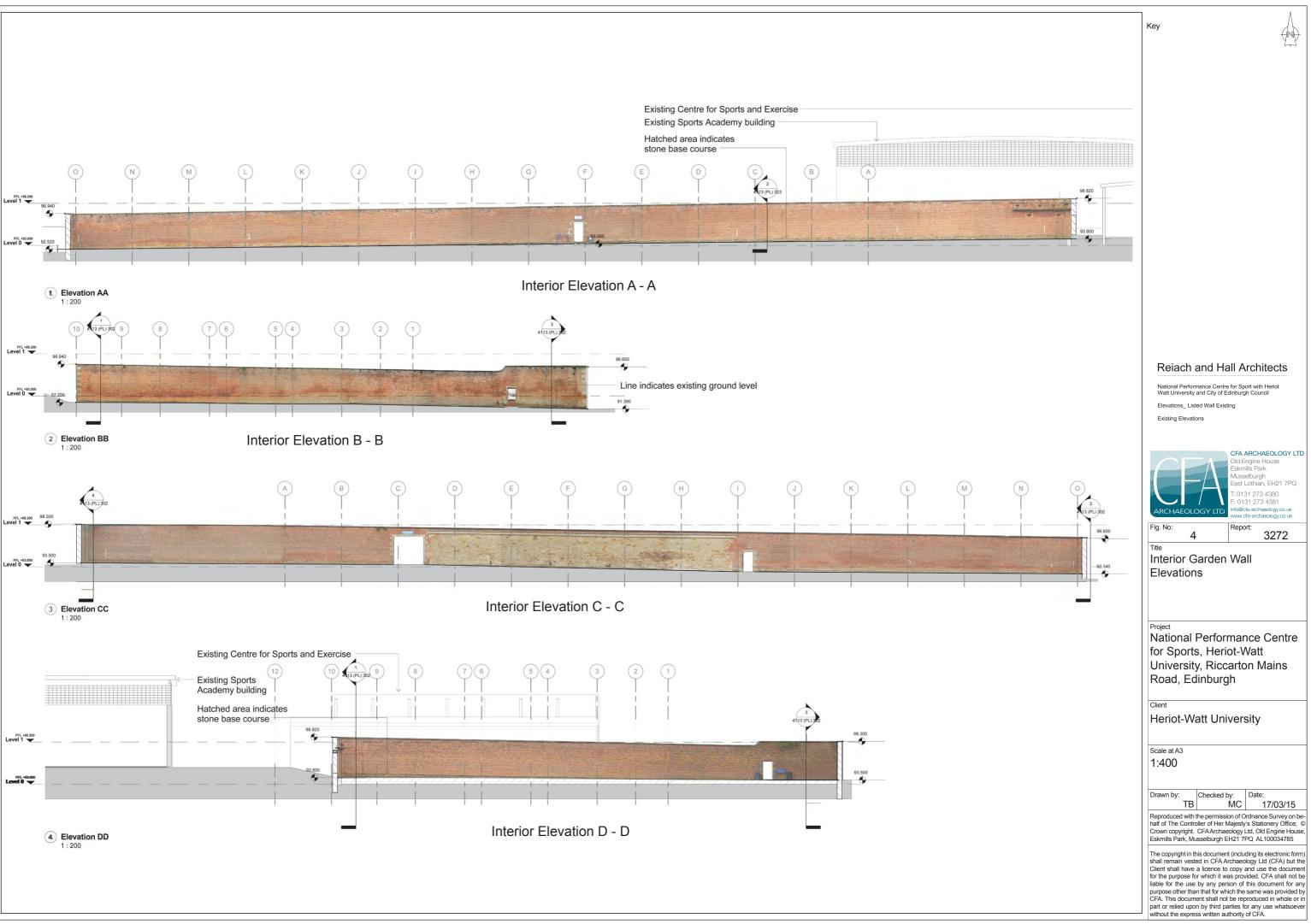
Photo No.	Contexts/Description	Taken from	Conditions
001-002	Interior SW-facing elevation, general view	NE	Dull
003	Interior SW-facing elevation, general view	NE	Dull
004	Interior SW-facing elevation, sample shot of the brickwork	NE	Dull
005-006	Interior SW-facing elevation, barred doorway	NE	Sunny
007	Interior SE-facing elevation, doorway	NW	Sunny
008	Interior SE-facing elevation, doorway and wall above	NW	Sunny
009	Interior SE-facing elevation, stone and brick junction	NW	Sunny
010	Interior SE-facing elevation, stone-built wall	NW	Sunny
011-015	Interior SE-facing elevation, blocked openings at the base	NW	Sunny
016	Interior SE-facing elevation, ridge line of former glass house with brickwork above	NW	Sunny
017	Interior SE-facing elevation, main vehicular entrance	NW	Sunny
018	Interior SE-facing elevation, main vehicular entrance ashlar construction	NW	Sunny
019-020	Interior SE-facing elevation, west end	NW	Sunny
021-023	Interior NE-facing elevation, doorway	NE	Sunny
024	Exterior SW-facing elevation doorway and drop in wall height	SE	Sunny
025	Interior NE-facing elevation, mid section, general view	SW	Sunny
026	Interior NE-facing elevation, mid section, general oblique view	SW	Sunny
027	Interior NE-facing elevation, mid section, general oblique view	SW	Sunny
028-029	Interior NW-facing elevation, splayed openings	SE	Sunny
030	Interior NW and SE facing canted corner and splayed opening	NE	Sunny
031	Interior NW-facing elevation, oblique view	SE	Sunny
032	Interior NW-facing elevation, brickwork sample	SE	Sunny
033	Interior SW-facing elevation, distance shot of rubble-built wall.	NE	Sunny
034	Exterior SE-facing wall, general shot of the doorway	SW	Sunny
035	Interior NW-facing wall, general shot of the doorway	NW	Sunny
036	Interior NW-facing wall, general shot of the door surrounds	SW	Sunny
037	Interior NW-facing wall, general distance shot	NW	Sunny
038-039	Interior SW-facing wall, NW canted corner	NE	Sunny
040-041	Exterior NE-facing wall, general oblique view	SSW	Sunny
042	Exterior NE-facing wall, barred doorway	SW	Sunny
043	Exterior NE-facing wall, barred doorway, oblique view	SW	Sunny
044-045	Exterior NE-facing wall, corner quoin stones	NE	Sunny
046	Exterior NW-facing wall, corner quoin stones	NW	Sunny
047	Exterior NW-facing wall, corner quoin stones and stonework, oblique view	NW	Sunny
048	Exterior NW-facing wall and part of Building A	NW	Sunny
049	Exterior NW-facing wall, stonework and blocked openings	N	Sunny
050	Exterior NW-facing wall, gable of Building A	NE	Sunny
051	Exterior of Building A, oblique view	NW	Sunny
052-054	Building A, main elevation, overlapping shots	NW	Sunny
	Building A, gable wall at west end	W	Sunny

Photo No.	Contexts/Description	Taken from	Conditions
056	Exterior NW-facing elevation, square openings	NW	Sunny
057-058	Exterior NW-facing elevation, doorway flanked by buttresses	NW	Sunny
059	Exterior NW-facing elevation, rubble wall adjacent to Building B	NW	Sunny
060	Exterior NW-facing elevation, gable corner wall, hatch vent openings	NW	Sunny
061	Gable wall of Building B	Е	Sunny
062-063	Building B, oblique view of the principal elevation	NE	Sunny
064-065	Building B, oblique view of the principal elevation	NW	Sunny
066	West gable of Building B	NW	Sunny
067-068	External, NW facing elevation between Building B and main vehicular entrance, blocked vents	NW	Sunny
069	External, NW facing elevation, main entrance door	N	Sunny
070	Building C, gable wall	Е	Sunny
071-072	Building C, principal elevation with fenestration	NW	Sunny
073	Building C, gable wall, W end	W	Sunny
074-076	Buttressed exterior garden wall between Buildings C and D	NW	Sunny
078	Building D, east gable wall	Е	Sunny
079-080	Building D, Gardners Cottage, NW-facing elevation	NW	Sunny
081	Building D, Gardners Cottage, East-facing elevation	Е	Sunny
082-083	Building D attached to NW corner of the Walled Garden	NNE	Sunny
084	External SW-facing elevation doorway	SW	Sunny
085	External SW-facing elevation, oblique view	NW	Sunny
086	External SW-facing elevation, brickwork sample	SW	Sunny
087-088	External SW-facing elevation, SW corner fabric	SW	Sunny
089	External SW-facing elevation, SW corner fabric and openings	SE	Sunny
090-091	External SE-facing elevation, oblique distance shot	SSE	Sunny
092	External SE-facing elevation, oblique distance shot	SSW	Sunny
093	External SE-facing elevation, east corner detail	SE	Sunny
094-095	External NE-facing elevation, general shot	SSE	Sunny
096	South-east facing elevation, main door.	SE	Sunny











ast Lothian, EH21 7PQ

National Performance Centre University, Riccarton Mains

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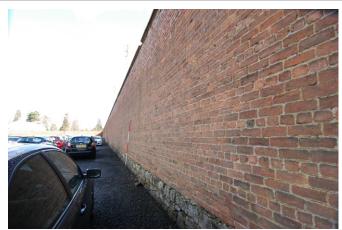


Plate 1 - Interior NW-facing elevation, general oblique view



Plate 2 - Interior NW-facing elevation, central doorway



Plate 3 - Interior NW-facing elevation, west corner with splayed openings



Plate 4 - Interior NE-facing elevation, general view



Plate 5 - Interior NE-facing elevation, doorway



Plate 6 - Interior SE-facing elevation, doorway and the junction between brick and stonework

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Plate 7 - Interior SE-facing elevation, stone built wall and the roofline of a former conservatory



Plate 8 - Interior SE-facing elevation, blocked vents at the base of the wall



Plate 9 - Interior SW-facing elevation, general view



Plate 10 - Exterior SE-facing elevation, general view



Plate 11 - Exterior NW-facing elevation, Building A



Plate 12 - Exterior NW-facing elevation, Building B



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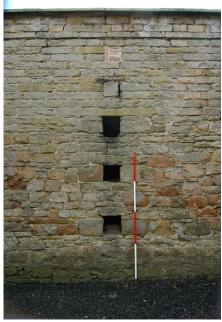


Plate 13 - Exterior NW-facing elevation, vertical row of hatch vents



Plate 15 - Exterior NW-facing elevation, Building C



Plate 17 - SW-facing elevation of Building D adjoining the garden wall



Plate 14 - Exterior NW-facing elevation, main vehicular access into the walled garden with blocked hatch vents on its left hand side



Plate 16 - NE-facing elevation of Building D (Gardener's Cottage) built against the walled garden



Plate 18 - Exterior SW-facing elevation, general view

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