



DUNCANNON FORT, CO. WEXFORD

HERITAGE REPORT

Prepared for

Urban Scale Interventions

Prepared by

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CONTENTS

1.0 INTRODUCTION	04
1.1 Background.....	05
1.2 Statutory designations.....	06
1.3 Limitations of the survey.....	07
1.4 Methodology.....	08
1.5 Understanding.....	09
2.0 IDENTIFIED HERITAGE ASSETS	10
2.1 Zone 01 - 'The Seafront'.....	11
2.1.1 No.21 Tower	
2.1.2 No.22 West Battery - Sunken Pill Box	
2.1.3 No.23 Gun Rings	
2.1.4 No.24 Munition's Store	
2.1.5 No.25 Generator Room	
2.1.6 No.26 West Battery - Pill Box	
2.1.7 No.27 West Battery - Pill box	
2.2 Zone 02 - 'The Parade Ground'.....	19
2.2.1 No.1 Magazine	
2.2.2 No.2 Armoury	
2.2.3 No.3 Armourer's Store	
2.2.4 No.4 Soldier's Recreational Hall	
2.2.5 No.5 Officer's Mess	
2.2.6 No.6 Lighthouse	

2.2.7 No.7 Burke's House	
2.2.8 No.8a Lean-to	
2.2.9 No.8b Store	
2.2.10 No.9 Governor's House	
2.2.11 No.10 Officer Barrack	
2.2.12 No.11 Soldier Barrack	
2.2.13 No.12 Soldier Barrack	
2.2.14 No.13 Barrack Store	
2.3 Zone 03 - 'The Walls'.....	45
2.3.1 No.14 Laneways	
2.3.2 No.18 Ditch & Rampart (Dry Moat)	
2.3.3 No.19 South Lunette	
2.3.4 No.20 North Lunette	
2.3.5 No.29 Marina Rampart	
2.3.6 No.36 Embrasure of Southern Wall	
2.3.7 No.37 Bridge Entrance	
2.4 Zone 04 - 'The Glacis'.....	57
2.4.1 No.35 Croppy Boy Cell	
2.4.2 No.38 Main Entrance	
3.0 SUMMARY	61
3.1 Overall heritage asset issues.....	62
3.2 Potential building fabric improvements.....	63

4.0 APPENDICES

- Appendix A - Site zoning diagrams
- Appendix B - Indicative roof insulation options
- Appendix C - Indicative window details

1.0

INTRODUCTION



1.1 Background

Alastair Coey Architects was appointed in April 2023 by Urban Scale Interventions, to prepare a heritage report as part of a wider Strategic Masterplan in connection with Duncannon Fort, Co. Wexford, on behalf of Wexford County Council. The site is part owned by both the local authority and the Office of Public Works (OPW).

The site, which lies to the east coast of County Wexford, is an impressive bastioned fortress perched on the side of the Hook Peninsula, part of Ireland's Ancient East, and opening out to stunning vantages of the Waterford Estuary and beyond.

The purpose of this report is, in the first instance, to provide a summary high-level assessment of the condition of the existing fabric, primarily centering around the buildings which enclose the parade ground, as well as the fortifications, twentieth-century military structures and other upstanding remains. The report will also draw out significant features and key issues relating to each asset and provide commentary, where relevant, on its proposed use within the masterplan. Outline recommendations will also be made for building fabric upgrades and improvements.



1.2 Statutory designations

Duncannon Fort, as a single entity, is a designated National Monument (Sheet 44, Record 15, Ref. WX044-015) listed as a star-shaped fort on the Record of Monuments & Places, and as such is afforded statutory protection under the terms of the National Monuments Act (1930-2004). The Act requires that Ministerial Consent be obtained from the Department of Housing, Local Government & Heritage prior to any works being undertaken.

Of the structures outlined within this report, 15no. are identified on the National Inventory of Architectural Heritage (NIAH), all with a rating of Regional, which is designated to structures that make a significant contribution to the architectural heritage of their region:

Asset Ref.	NIAH Ref.
• No.01 Magazine	15618003
• No.02 Armoury	15618001
• No.03 Armourer’s Store	15618002
• No.05 Officer’s Mess	15618010
• No.06 Lighthouse	15618012
• No.07 Burke’s House	15618009
• No.09 Governor’s House	15618008
• No.10 Officer’s Barrack	15618007
• No.11 Soldier Barrack	15618006
• No.12 Soldier Barrack	15618005
• No.13 Barrack Store	15618004
• No.22 Sunken Pill Box	15618013
• No.23 Gun Rings	15618011
• Pill box (rear of No.09)	15618014
• No.38 Main Entrance	15618015

Of these, 1no. building is included on the Record of Protected Structures (RPS) within the Wexford County Development Plan 2022-2028. Planning permission will be required to undertake any works to this building that would materially affect its character.

Asset Ref.	WCC Ref.
• No.02 Armoury	WCC0863

The site does not fall within an Architectural Conservation Area.

1.3 Limitations of the survey

All surveys have been carried out from ground level only, without the use of ladders or surveying or lift equipment. Parts of buildings and/or structures which are concealed or otherwise inaccessible, for whatever reason, have not been inspected and Alastair Coey Architects is unable to report on the condition of such areas. A drone survey has been procured, although yet to be carried out, to provide high-level photography and video footage of concealed areas such as internal valleys and roof surfaces generally. However, in the absence of such survey information, it has not been possible to provide detailed commentary on these areas.

Limited structural observations have been made, however no implications have been drawn in this report. Reference should be made to a separate document prepared by Cora Consulting Engineers for all structural matters.

The site generally runs on an east-west axis and for the purpose of this report elevations have been described as north, south, east and west accordingly. No previous surveys have been undertaken to ascertain the presence of asbestos, contaminants or other hazardous materials.

1.4 Methodology

The inspection of the Fort was carried out by Alastair Coey and Andrew Bryce. Alastair Coey is a RIAI Grade 1 Conservation Architects and Andrew Bryce is an ARB Architect.

The survey involved comprehensive but non-intrusive internal and external inspections of the upstanding structures on the site, which took place on the dates as outlined below. The weather was generally warm and dry across all survey visits.

Dictated survey notes were recorded and a comprehensive digital photographic survey was also prepared.

Background research undertaken in the course of preparing this report has included:

- Background & historical research – Desktop review of statutory protections, relevant entries on the NIAH database and historic photographs.
- Review – Review of existing documentation and evidence gathered to date relating to the heritage assets on the site (including Duncannon Fort Conservation Management Plan 2016, Building Condition Report and measured floor plans and topographical surveys) to establish comprehensiveness
- Initial tender visit – Carried out by Andrew Bryce (Duncannon, 28th February 2023)
- First site visit and commencement of on-site surveys – Carried out by Andrew Bryce and Alastair Coey (Duncannon, 2nd May 2023)
- Second site visit and conclusion of on-site surveys – Carried out by Andrew Bryce and Alastair Coey (Duncannon, 25th May 2023)
- Attendance at Weekly Design Team meetings held virtually as required throughout the development of the masterplan

For the purposes of this report, the site has been subdivided into four distinct zones, labelled Zone 01 - 04. Heritage assets are identified within each of these zones using numerical designations and associated naming conventions prescribed by Urban Scale Interventions. It should be recognised however that this is not an exhaustive list, and that additional assets or surviving features exist but are outwith the scope of this report.



Fig. 1: Late-sixteenth or early-seventeenth century map

1.5 Understanding

Location

Duncannon Fort is a late-sixteenth century bastioned coastal fort situated in Co Wexford at the north end of the Hook peninsula. The fort is sited on a rocky promontory, which juts out on the Wexford side of the estuary of the Barrow, Nore and Suir rivers, 11km north of the open sea at Hook Head. The fort contains earlier archaeological remains in the form of a fifteenth century castle with associated curtain wall and towers and, probably, an earlier prehistoric promontory fort.

On its landward side, the fort comprises a series of massive outer defences which cut off a small promontory; the building of these defences was begun in 1587. Outside the defences is the glacis, to the north of which is an eighteenth century graveyard.

On the seaward side of the defences are a range of largely eighteenth and nineteenth century buildings arranged around a parade ground. At the far western end, there are two sea batteries.

History

The original name of the promontory, 'Dunmechanan', means the fort of the son of Canan or Conan, which indicates that it may have been the site of a prehistoric promontory fort, though there is no other archaeological evidence of this, the site having since been entirely built upon by the extant fortifications. The earliest surviving written record of the locality is the foundation charter of Dunbrody Abbey in 1172-77.

A castle at Duncannon is first mentioned in 1580, described as the 'Owlde Castell'. The fortification of the promontory was first proposed in 1551-2 to provide a base for a permanent garrison to suppress piracy and secure Waterford City and the town of New Ross against invasion. The threat of a Spanish Invasion in the 1580's prompted initial construction in 1587 when two redoubts were erected for the protection of the existing castle.

By the latter half of the fifteenth century, the increasing effectiveness of artillery had led to changes in the design and construction of fortifications, which then spread throughout Europe, reaching Ireland in the later sixteenth and seventeenth centuries. The construction of Duncannon Fort was part of this new wave of military fortification, marking the end of the medieval castle. As a bastion fort, it is typical of its sixteenth century construction date. A letter dated 1590, written by a Waterford merchant, includes a detailed description of the fort suggesting there were outer defences consisting of a trench, rampart, stone towers to the east and west, and a drawbridge. Additionally, there were earthwork banks on the sea cliffs to the north and south.

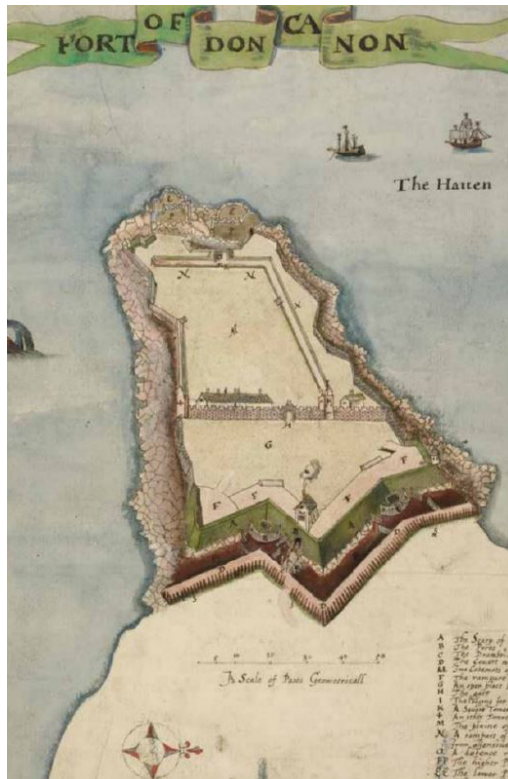


Fig. 2: 1611 map of Duncannon Fort, Sir Josias Bodley



Fig. 3: 1680 map, Thomas Philips

In 1611, a letter written by Sir Josias Bodley details improvements made to the fort under his direction. A map survives of the fort at this time (Fig. 2). The works involved doubling the width of the rampart, adding stone walling to the cliffs and doubling the size of the gun platforms. The original castle, bawn wall and blockhouse were also repaired. By the 1620's, the garrison at the fort was being reduced and as a consequence, the fort was subject to neglect, with orders in 1624 for it to be speedily repaired and fortified.

With the outbreak of rebellion in Ireland in November of 1641, marking the beginning of the Irish Confederate Wars (also called the Eleven Years' War), the fort became a refuge for Protestants in the surrounding area; at this time the garrison numbering about 100 men. The fort was first besieged by Confederate rebels in December 1641 until March 1642, when the garrison was reinforced by the arrival of 200 men from Bristol, resulting in the lifting of the siege. Providing supplies proved difficult for the Royalists, with provisions often short during the years of the first siege. This was not helped by a generally mutinous garrison, who inevitably changed sides, declaring for the Parliament in 1644, following the arrival of provisions on a parliament ship.

This declaration for the anti-royalist British parliament led to the second siege in 1645, this time besieged by anti-parliament Confederates, who numbered over 1,200. Four ships arrived to assist the besieged fort, the Mayflower, Magdalen, Elizabeth and Great Lewis, landing a number of supplies and men. All but one, the Great Lewis, which came under heavy fire and later sank, managed to cut their lines and sail away. On 15th March, a mine placed under the northern sally-port by the Confederates blew a wide breach in the wall and the tower which lay nearest the inner gate of the fort was later battered down. Some days later on the 19th, the governor of Duncannon Fort surrendered to the leader of the Confederates, who was given charge of the fort.

From the period of 1645-1650 the fort was held by the Confederate Government and was on several occasions the headquarters of the Papal Nuncio Rinuccini, who spent his own money strengthening the defences

Following the fall of Wexford in 1649, a new governor was appointed at Duncannon and the fort provisioned against attack before Oliver Cromwell arrived as head of the parliamentary forces. The garrison chapel is first mentioned in a letter dated from this time. A Cromwellian General besieged the fort was repulsed. A further siege took place the following year and the fort surrendered by the governor. It was retained by parliamentary forces however no repairs were made. The new temporary governor wrote to the Commissioners of Parliament at Waterford complaining of the lack of accommodation for the garrison and the decayed state of the fort. Some years later in 1655, a Commissary was appointed to report what repairs were necessary to the fort. In 1667, a grant was made for the maintenance of the fort.

In 1690, after the Battle of the Boyne, King James II left by ship from Duncannon for Kinsale. The then governor of the fort later resisted attack under King William III (of Orange) until the arrival of frigates forced



Fig. 4: Plan of fort by Vallancey, 1770

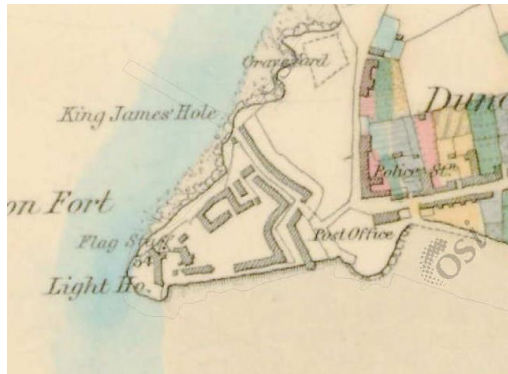


Fig.5: OS First Edition, 1841



Fig.6: Kerrigan's map based on two mid-nineteenth century maps

his surrender.

The defensive capability of the fort declined from the end of the seventeenth century, in favour of Passage East on the Waterford side of the estuary, however the fort was renovated in 1724. At this time a new drawbridge, deep ditch and glacis were added. Heavy guns were also mounted on the sea face and a lower western battery was erected at sea level.

In 1751, a new governor of Duncannon was appointed and in 1753 the fort was restored again at a cost of £8,000. In 1770, Lieutenant Colonel Vallancey was sent to survey the forts of the south-eastern counties to assess their status in case of invasion. He writes of that 'Duncannon Fort affords a very trifling defence to this harbour. One 30-gun frigate would silence it in a few hours...'. His report is accompanied by a detailed plan of the fort (Fig. 4).

During the 1798 rebellion the fort was under the command of Major General Fawcett and, as a strongpoint, became a refuge for loyalists. A sortie by Fawcett towards Wexford town was defeated by the rebels. The fort was a place of incarceration for captured rebels prior to their transportation to Geneva barracks across the harbour in Co. Waterford.

In 1814, two Martello towers were built on the landward side of the fort in response to the threat of Napoleonic invasion. The casemated battery under the glacis is also likely to have been erected around this time.

The fort was occupied by local militia during the early twentieth century and throughout the First World War. After the 1921 War of Independence truce between British and Irish forces, the fort was used as a training ground for the third eastern division IRA. It was burned by the anti-treaty IRA in 1922 after which it lay derelict until 1939, when it was occupied by the Irish Army during the Second World War of 1939-45. During this period, the fort was refurbished by the army, and several new structures added, including concrete pillboxes and gun platforms. It was also at this time that the last remaining part of the late medieval fortification known as 'King James Tower' was demolished. A new cast concrete barrack/ caretaker's residence (Burke's House) was also built on top of the remains of the late medieval garrison chapel. The fort was used intermittently by the Local Defence Forces/ FCA until the 1980s, after which it was acquired by Wexford County Council in the 1993. The Duncannon Fort Trust was also established at this time, who operated the site from 1993 to 2015 as a visitor attraction. In 2015, the fort was closed to the public for health and safety reasons.

References

Stafford McLoughlin Archaeology (2016) *Duncannon Fort: Conservation Plan*

National Library of Ireland

2.0

HERITAGE

ASSETS

2.1

ZONE 01 -

'The Seafront'



Fig. 7: No.21 Tower



Fig. 8: South wall



Fig.9: East wall

2.1.1 No.21 Tower

Description

Three upstanding walls built in rubble stone construction, with inward wall (north) substantially missing. Stonework mainly conglomerate rubble with surviving red brick door jambs to north wall. Former window openings to east and west walls now built up with evidence of former timber lintels, now missing. No evidence of original floor surface.

Significant Features

- Two surviving stone door thresholds
- Surviving sandstone door jamb blocks to left and right-hand-side, each having splayed surface, square in top surface and rebate for former door frame
- Originally two spaces (central wall approximately 400mm wide missing)
- Remnants of internal lime-based plasterwork; analysis worth considering
- Evidence on all three walls of possible former mono-pitch roof line
- Evidence of low-level box structure, possible former latrines

Key Issues

- Extensive vegetative growth to outer faces
- Structural crack to east wall caused by vegetative roots
- Extensive deterioration of lime plaster

Commentary on proposed use

No specific use is proposed for this heritage asset as part of the current masterplan, other than its continued interest as a surviving feature and part of the wider interpretation of the site. The tower has potential for use as a viewing point through the introduction of an independent raised platform with steps, which may or may not be tied back to the existing structure.



Fig. 10: Pill box and entrance steps



Fig. 11: Surviving iron screens



Fig. 12: Corroded iron tracks to screens

2.1.2 No.22 West Battery - Sunken Pill Box

Date

1939 - 1945

Description

Cast-in-situ concrete pillbox with curved outer wall to south. Cast in-situ concrete floor having drainage channels with, what appear to be, modern galvanised grillages. Underside soffit of flat roof unfinished cast-in-situ concrete. Unfinished render to north wall. Pillbox approached by flight of ten cast-in-situ concrete steps, then half-landing followed by further eight steps; cast-in-situ concrete flanking walls approximately 150mm wide. Galvanised tubular steel balustrade to top of slope to pillbox.

Significant Features

- Twentieth-century cast-in-situ concrete military structure
- Irons screens to curved outer walls which appear to have slid on iron tracks to both sides
- Remains of gun-run at top of steps to pillbox; part of limestone base missing. Cast-iron track run located to right-hand-side of pillbox.
- Gun emplacement to south of Lighthouse (No.6) with limestone bed stones and cast-iron track in-situ. Stone slab to central position with metal rail missing. Ashlar limestone stonework to either side of central line.

Key Issues

- Iron screens heavily corroded and de-laminated as a result of long-term exposure to sea air
- Ashlar limestone to gun emplacement falling away to left-hand-side with substantial copings approximately 400mm deep

Commentary on proposed use

No specific use is proposed for this heritage asset as part of the current masterplan, other than its continued interest as a surviving feature and part of the wider interpretation of the site. The pill box, and other similar surviving military structures on the site, have potential for use as interpretation pods and for framing specific vantages of the estuary and nearby attractions and historical monuments. The refurbishment or replacement of existing sliding iron shutters also presents an opportunity to incorporate interpretation boards.



Fig. 13: Gun rings



Fig. 14: North gun ring and wall to north



Fig. 15: North gun ring and central section

2.1.3 No.23 Gun Rings

Description

Originally symmetrical on plan form, effectively central section with splayed walls having flanking sections of curved (semi-circular) walls. Grassed area to south side assumed to originally have been similar to gun emplacement to north. Central splayed section has stone slab paving to north and south sides, remainder is rough, apparently concrete. Ashlar stonework displaying several finishes including roughcast, smooth ashlar and dressed ashlar. Upper surface appears mainly flat and unpaved, changing to grass and vegetation towards sea. Brick wall to north of gun emplacement, battered to landward side with brick-on-edge coping. Wall continues to splay northwards where coping changes to stone.

Significant Features

- Well-built ashlar stonework
- Surviving in-situ cast-iron rails and associated stone paving into which they are set to northern gun emplacement

Key Issues

- Concrete surface finish applied to central splayed section, stone paving may survive beneath
- Strong cement mortar pointing to battered brick wall to north side, accelerating deterioration
- Structural crack where wall returns westward
- Upper courses and brick-on-edge coping missing to returned section of wall

Commentary on proposed use

No specific use is proposed for this heritage asset as part of the current masterplan, other than its continued interest as a surviving feature and part of the wider interpretation of the site.



Fig. 16: Door opening to store



Fig. 17: Internal space



Fig. 18: External stonework

2.1.4 No.24 Munition's Store

Description

Coursed conglomerate splayed walls, tooled splayed limestone stepped quoins, stepped limestone quoins to entrance having lintel with central keystone. Interior lined with single-skin brickwork. Soffit of granite roof slabs visible from interior, segmental arched brickwork to opening. Wall heads capped with splayed coping, roof covered with domed vegetation.

Significant Features

- Large intact granite roof slabs
- Well-built ashlar stonework
- Evidence of former timber wallplates embedded in single-skin brickwork
- Unusual plan form

Key Issues

- Interior single-skin brickwork significantly falling away from rubble-stone walls, potential for further collapse

Commentary on proposed use

It is envisaged that the munition's store will form part of the wider visitor experience, with interpretation centred around the former use of the structure. Given the precarious condition of the interior space, a structural assessment will be needed to determine if stabilisation works are required to make the space safe for visitors. An alternative proposal is to fit out the store with nesting structures to allow for roosting of birds and/or bats.



Fig. 19: South elevation



Fig. 20: East elevation



Fig. 21: Surviving generators

2.1.5 No.25 Generator Room

Date

1939 - 1945

Description

Unpainted roughcast walls, concrete floor, cast-in-situ concrete roof, original heavily-rusted generators and ancillary equipment remains. Remains of metal-framed windows. Approached by 3no. concrete steps.

Significant Features

- Twentieth-century cast-in-situ concrete military structure
- Surviving original generators and ancillary equipment

Key Issues

- Generators heavily-rusted, likely beyond point of refurbishment

Commentary on proposed use

It is envisaged that the generator room could serve as a centralised plant room containing air or water-source heats pumps which service the wider site (refer to Sustainability Report for further information). This would also provide some continuity with its former use as an energy generating structure.

It is also hoped that the extant generator equipment can be showcased as a surviving element of the sites World War two history. Further investigation will be required to establish the feasibility of removing the equipment for off-site refurbishment or retaining in-situ and encasing in display units.



Fig. 22: East elevation



Fig. 23: Surviving iron screens



Fig. 24: Interior space

2.1.6 No.26 West Battery - Pill Box

Date

1939 - 45

Description

Identical in most respects to pillbox building No.22. Line of original battery obviously disrupted in order to construct pillbox.

Significant Features

- Twentieth-century cast-in-situ concrete military structure
- Irons screens to curved outer walls which appear to have slid on iron tracks to both sides

Key Issues

- Crude breaking through of former battery to accommodate construction of pillbox
- Iron screens heavily corroded and de-laminated as a result of long-term exposure to sea air

Commentary on proposed use

No specific use is proposed for this heritage asset as part of the current masterplan, other than its continued interest as a surviving feature and part of the wider interpretation of the site. The pill box, and other similar surviving military structures on the site, have potential for use as interpretation pods and for framing specific vantages of the estuary and nearby attractions and historical monuments. The refurbishment or replacement of existing sliding iron shutters also presents an opportunity to incorporate interpretation boards.



Fig. 25: East elevation



Fig. 26: Interior space



Fig. 27: Drainage chute to north wall

2.1.7 No.27 West Battery - Pill Box

Date

1939 - 1945

Description

Cast-in-situ concrete pillbox having cast-in-situ concrete roof. Approached by two cast-in-situ concrete steps. Soffit of board-marked roof exposed, low floor to ceiling height, outer section missing. Raised square cast-in-situ concrete plinth in centre with galvanised mild-steel grillage covering what appears to be holding-down bolts for something circular.

Significant Features

- Large drainage chute in north wall discharging to sea has dressed stone lintel suggesting earlier date and wrought-iron grillage heavily rusted.
- Evidence of brick wall at low level on north, south and west walls suggest a possible earlier structure.

Key Issues

- Cracking to roof soffit suggesting expansion of encased reinforcement and structural failure

Commentary on proposed use

No specific use is proposed for this heritage asset as part of the current masterplan, other than its continued interest as a surviving feature and part of the wider interpretation of the site. The pill box, and other similar surviving military structures on the site, have potential for use as interpretation pods and for framing specific vantages of the estuary and nearby attractions and historical monuments. The refurbishment or replacement of existing sliding iron shutters also presents an opportunity to incorporate interpretation boards.

2.2

ZONE 02 -

'The Parade Ground'



Fig. 28: South elevation



Fig. 29: North gable



Fig. 30: East elevation

2.2.1 No.01 Magazine

Date

1770 - 1840

Description

Detached rectangular on plan single-bay single-storey gable-fronted magazine; later cast-in-situ projecting flat-roofed porch. Decommissioned 1986.

Roof

Fibre-cement slate roofing to east and west slopes with concrete-topped cut-granite verge copings to north and south ends. Angled concrete ridge with 3no. ridge ventilators. Granite verge copings to gables carried on projecting splayed corbels terminating at apex in inverted V, tapered kneeler stones carried on eaves corbels to east and west sides. Substantial cut-granite eaves courses to east and west elevations carried on projecting granite corbels.

North & West Elevations

Exposed uncoursed rubble stone walling to north and west elevations. Large roughly-hewn quoins to north-west corner, splayed to east face but not north face. Splayed cement-based plinth to west elevation. Three stone buttresses to west elevation having splayed upper surfaces with projecting brick courses.

South & East Elevations

Cement-based wet dash to south and east elevations. East elevation with smooth sand-cement plinth and quoins to north and south ends, two window apertures with one brick thick inner lining with gap to further brick wall, frame appears to have been removed. Flat-roofed projecting porch to south elevation with cast-in-situ concrete roof, cement-based wet dash to east and west sides, smooth cement-based render to south elevation with moulded bead jointing, galvanised steel gate.

Interior

No access to interior but appears to be brick barrel-vaulted ceiling with brick lining to north gable, potentially two openings at high level.



Fig. 31: Eaves course and corbels



Fig. 32: West elevation



Fig. 33: Buttress

Significant Features

- Evidence of wrought-iron gutter bracket stubs between eaves corbels and eaves course
- Substantial quantity of surviving original fabric
- Outward splayed (battered) walls
- Monolithic stonework including cut-granite verge copings, eaves course and eaves corbels
- Stone buttresses to west elevation
- Internal limewashed barrel-vaulted brick ceiling and brick lining
- Slate blind opening and stone-lined opening to east and west sides (respectively) of north elevation purpose not clear

Key Issues

- Fibre-cement roofing with isolated displacement of plates and some lichen growth to top of slope
- Evidence of outward movement of east kneeler and displacement of triangular stone above to north elevation
- Cast-in-situ concrete topping to verge copings cracked along length with vegetative growths
- Some displacement of alignment to eaves course and upward displacement caused by remaining gutter bracket stubs
- Extensive crack to east side of north elevation
- Extensive cracking and falling away of cement-based plinth to west elevation
- Projecting brick courses to buttresses largely fallen away and upper surface treatment also missing
- Cracking to south aperture to west elevation extending above opening to underside of corbel and below through base of plinth
- Extensive cracking and falling away of cement-based render to porch
- No surviving rainwater goods

Commentary on proposed use

It is proposed that the building could operate as a multi-media space as part of the visitor experience with ancillary evening and off-season use as a lecture hall or small cinema space. The existing building, which comprises a single internal room, is well suited to such uses which minimise the requirement for subdivision of the space and maximises the impressive brick vaulted ceiling.



Fig. 34: South elevation



Fig. 35: West elevation, south side



Fig. 36: West elevation, north side

2.2.2 No.02 Armoury

Date

1770 - 1840

Description

Detached rectangular on plan five-bay single-storey ordnance store. Later gable-fronted extension to north side of west elevation. Reconstructed 1939 to accommodate alternative use; decommissioned 1986.

Roof

Replacement corrugated asbestos pitched roof, cast-in-situ concrete verge cappings to south rising from cast-in-situ kneelers.

East Elevation

Uncoursed rubble stone walling to east elevation with isolated cement-rich over-pointing. Original window sills removed and raised to form cast-in-situ concrete sills. Painted two-over-four timber casement windows. Projecting stone eaves course over brick header course. Stone voussoirs to three southern-most windows, missing to north. Wall surface battered outwards.

South Elevation

Cement-based wet dash with cement-based square-topped smooth render plinth. Splayed ashlar limestone quoins to east and west sides of south elevation. Gap between east side and building No.3 filled with cement-rich mortar. Three central windows having slightly projecting rendered reveals and cast-in-situ concrete sill. Hardwood six-paned plain-glazed fixed lights with hardwood beads.

West Elevation

Battered wall with cement-based wet dash with cement-based square-topped smooth render plinth. Splayed ashlar limestone quoins to south side. Panel above central door opening infilled with roughly rendered smooth cement plaster. Exposed header brick evident at location of former rainwater drive-in bracket below projecting eaves. Painted timber two-over-four plain-glazed casement windows with cast-in-situ concrete sills. Cement-based slightly projecting rendered reveals to window openings. Projecting stone eaves corbel faces with painted timber fascia. Painted timber vertically sheeted framed door. Iron pintle projecting from south side of doorway, presumably carrying former metal gate, with possible restraint stay further south.



Fig. 37: East elevation



Fig. 38: Section of dressed stone to north side



Fig. 39: Reconfigured window sills

North Elevation

Not accessible

Interior

No access to interior but appears to be brick barrel-vaulted ceiling.

Significant Features

- Rubble stone walling to east elevation
- Evidence of holes for gutter support brackets in vertical face of eaves course to west elevation. Also evidence of later drive-in bracket
- Small section of dressed stone to north end of east elevation approximately one metre above ground level, possible suggesting an extension to the building northwards
- Evidence of lime-based wet dash render to north end of east elevation
- Evidence of former square-section finial or flag-pole to gable held in place with wrought-iron holderbats

Key Issues

- Corrugated asbestos roof with major hole repaired with corrugated tin to north
- Extensive spalling to concrete window sills
- Condition of all timber windows ranging from poor to very condition
- Isolated areas of vegetative growth
- Isolated areas of cracking to cement-based wet dash
- Timber fascia in very poor condition
- Timber sheeted door to west elevation in very poor condition
- No surviving rainwater goods
- Zig-zag crack to north end of east elevation
- Redundant insulated power cable bracketing in gable

Commentary on proposed use

It is proposed that the building could operate as a large food hall and/or events space accommodating functions such as weddings. Similar to building No.01, this building comprises a large single room and its use as an open plan space would maximise existing features, again including high brick vaulted ceilings.



Fig. 40: South elevation



Fig. 41: East elevation



Fig. 42: North elevation

2.2.3 No.03 Armourer's Store

Date

1770 - 1840

Description

Detached rectangular on plan five-bay single-storey armourer's workshop with half-attic, originally five-bay two-storey. Burnt, 1922. In ruins, 1933. Reconstructed, 1939, producing present composition. Decommissioned, 1986.

Roof

Fibre cement slate roofing. Blue/black clay roll-top ridge tiles. uPVC moulded fascia and sheeted soffit. Moulded uPVC gutters discharging to square uPVC downpipes. uPVC bargeboard to east elevation.

South Elevation

Cement-based wet dash walling on rubble stone background. Brick dressed opening to central doorway evident where render has fallen away. Smooth rendered cement-based plinth and quoins to east and west sides. Cement-based plain rendered surround to central doorway having cement-based voussoir. Granite steps. Painted timber vertically sheeted door having three decorative glass panes with timber beads to upper panel. Top-hung uPVC double-glazed casement windows. Slightly projecting rendered reveals. Granite sills with possible infilled mortices for former bars.

East Elevation

Walling same as for south elevation. Painted timber three-over-six casement window appears original, stepped red brick reveals and rubbed brick lintel, pre-cast concrete sill.

North Elevation

Walling same as previously described however no quoins.

Interior

Interior completely re-modelled; of no historic or architectural interest. Roof structure visible from trap-door to porch.



Fig. 43: Entrance door and surround



Fig. 44: Brick surround to east window



Fig. 45: Detached render to north elevation

Significant Features

- Rubble stone constructed with bricks dressed openings, evident where later render missing
- Detached area of render to north elevation exposing stonework and brickwork possibly delineating former chimney flue
- Roof structure appears to be wrought-iron trusses carrying timber purlins and vertical sarking boards

Key Issues

- Extensive areas of detachment, falling away and cracking of cement-based render
- Fibre-cement slate roof with several isolated repairs
- Some cracking to brick reveals to window to east elevation, also some surface deterioration of brickwork

Commentary on proposed use

It is proposed that the building could operate as a welcome and information point for visitors entering the site, due to its ideal location and prominence at the entrance to the parade ground. The lack of any surviving internal features provides an opportunity for flexible design and reconfiguration of the interior space which may incorporate small office space, a reception desk and visitor seating.



Fig. 46: South elevation



Fig. 47: East elevation



Fig. 48: Wrought-iron trusses

2.2.4 No.04 Soldier's Recreational Hall

Date

1939 - 1945

Description

Detached rectangular on plan three-bay single-storey hall. Single-storey returns to east and west sides of north elevation having single-pitched roofs continuous with main pitch.

Roof

Fibre-cement slate roofing. Blue/black clay roll-top ridge tiles. uPVC moulded fascia on smooth cement-based rendered eaves band to south. Moulded uPVC gutters discharging to square-section uPVC downpipes. Painted timber bargeboards to gables and north elevation. 2no. rectangular smooth rendered chimneystacks to east and west with projecting caps. Terracotta flue liners to eastern stack.

South Elevation

Cement-based smooth rendered walling to sill level with roughcast rendered walling above, smooth rendered margins. Entrance doors to east and west ends. Door to west being timber framed, ledged and braced with V-jointed vertical sheeting, three-light fanlight over. Modern door to east with matching arrangement. Both with cast-in-situ concrete step.

Interior

Central space having timber floorboards, plastered walls with plaster applied directly onto masonry background. 3no. wrought-iron roof trusses carrying ridge beam and 5no. timber purlins to each slope, vertical sarking boards. Identical brick fireplaces to east and west ends of building, each having raised concrete fenders on brick hearths laid in herringbone pattern.



Fig. 49: Brick fireplace



Fig. 50: Possible original timber door

Significant Features

- 3no. wrought-iron fink trusses carrying secondary timber roof structure
- 2no. brick fireplaces to central space of some limited interest
- Entrance door to west side potentially original, as well as internal unmoulded four-panelled doors

Key Issues

- One major apparently structural crack to left of centre to south wall

Commentary on proposed use

It is proposed that the building could operate as a flexible, open plan space for flexible, multi-functional community and education use. Like several of the other building elsewhere on the site, this building is centred on an existing single-room space and lends itself to use as a community hall. The small spaces which flank the entrances to the east and west may also provide ancillary accommodation as kitchenettes or limited sanitary accommodation.

2.2.5 No.05 The Officer's Mess



Fig. 51: East elevation



Fig. 52: North elevation



Fig. 53: Re-located date plaque

Date

1770 - 1725

Description

Detached five-bay two-storey royal artillery officers' barrack, rectangular on plan centred on single-bay single-storey gabled projecting porch to ground floor; single-storey hipped return and detached single-pitched shed to rear (west). Occupied 1901; vacant 1911; in alternative use 1922; vacated 1986; restored 2005, to accommodate alternative use.

Roof

Main roof hipped having central valley, natural slate roofing, blue/black clay angle ridge and hip tiles, half-round cast-iron gutters on rise-and-fall brackets on ashlar limestone projecting eaves course. Central chimneystack having 8no. yellow clay pots, red brick construction having projecting limestone courses at cap. Moulded aluminium gutters to single-storey northern volume, original projecting tooled ashlar stone eaves course having semi-circular drip mould to underside, central aluminium downpipe.

North Elevation

Splayed tooled limestone plinth, tooled limestone quoins to east and west sides. Tooled limestone sills to 2no. larger windows, concrete sill to smaller windows to east. East window being painted timber two-over-two sliding sash window with curved horns. Larger windows being painted timber six-over-six having plain glazing and splayed horns.

East Elevation

Cement-based roughcast walls on masonry background, chamfered limestone plinth, ashlar limestone stepped quoins to north and south sides and rendered eaves band below projecting eaves course. Painted timber six-over-six sliding sash windows having quadrant horns, smooth cement-based rendered surrounds, original limestone sills. Screen wall to south side with opening having tooled ashlar reveals on splayed plinths, lintel with central voussoir, semi-circular blind panel over with tooled limestone voussoir and smooth render bands to either side. Central gable-fronted porch having fibre-cement roof, concrete ridge tiles, cement-based wet dash. Two-over-two replacement timber sash window having smooth rendered surround, tolled ashlar sill presumably removed from another location. Date-stone above window.



Fig. 54: Rear return



Fig. 55: Shed



Fig. 56: Yard wall and return

South Elevation

Doorway in screen wall leads to passageway with smooth cement-based rendered gable to north (and unroofed lean-to shed to south, see No.8a). Gable has two windows at first floor level, both uPVC top-hung casements with original tooled limestone sills.

West Elevation

Smooth cement-based rendered walling. Square-headed window openings, uPVC top-hung casement windows to first floor, six-over-six replacement timber sash windows to ground floor.

Return

Natural slate roof, concrete hip tiles, no rainwater goods, smooth cement-based render. Door opening to yard wall between return and shed with red brick stepped reveals and segmental-arched opening infilled with plywood sheeting, stone threshold blocks to either side of opening.

Shed

Rubble stone shed to south-west corner, having hipped roof and natural slate covering, projecting brick eaves course with quadrant corner detail, surviving original drive-in wrought-iron gutter brackets.

Interior

Timber-boarded floors to ground floor, replaced in extension to right-hand side with new timber boards. Double-painted timber double doors leading from porch and fanlight over may be original, each has two flush beaded panels. Four-panelled unmoulded door to right-hand-side may be original as it has brass knob furniture and rim lock. Stuck-moulded five-panelled door to left-hand-side of hall may also be original, with bakelite knobs and modern rim lock. Range in kitchen area to rear. Painted timber vertically-jointed sheeted ledged-and-braced door to stairs underside may be original. Floor joints, floor boards, lath and plaster ceiling and cornice to front right-hand-side room. Five-panelled door to this room. Six-panelled door to this room also appears to be original, as are architraves. Fireplace similar to that in building No.4.



Fig. 57: Range in kitchen area



Fig. 58: Collapsed plaster to lath and plaster ceiling



Fig. 59: Brick fireplace

Significant Features

- Original timber boarded floors
- A number of potentially original timber doors with original ironmongery and architraves
- Range in kitchen area to rear may be of potential interest
- Fireplaces may be of some limited interest
- Original floor structure including timber joists and floor boards
- Original lath and plaster ceiling and cornicing to first floor north-east room
- Date stone to porch gable; note probably relocated from elsewhere and not relating to building (1724)

Key Issues

- Fibre-cement slate roof to porch
- Extensive hollowness and some falling away of render to rear yard wall capping
- Surviving rainwater goods to shed all in poor condition

Commentary on proposed use

It is proposed that the building could serve as accommodation with kitchen facilities and communal space at ground floor level. The existing building layout is better suited for use as accommodation than its former use as a cafe, given the existing configuration of internal walls and with multiple scenic views out from its prominent location on the site. The use of the ground floor as a kitchen/ canteen with communal and/or recreational space is also in keeping with the buildings former use as a mess.



Fig. 60: South-east elevation



Fig. 61: Existing window

2.2.6 No.06 Lighthouse

Date

1790 - 1795

Description

Freestanding single-bay two-stage lighthouse, built 1791, circular on plan.

West Elevation (Straight Wall)

Painted smooth cement-based rendered walling, projecting rendered plinth, half-round cast-iron rainwater goods on drive-in brackets on projecting rendered eaves course, natural slate pitched roof, blue/black angle ridge tiles, cast-in-situ concrete verge capping. Smooth rendered square chimneystack with single pot.

South-West Elevation (Curved Wall)

Walling as previous described. 2no. square-headed window openings, curved heads, circular frame inset with 4no. spokes, material not clear, metal grille to lower window. Conical roof having lead sheet covering, no gutters, projecting eaves course, central post capped with weather-vane.

South Elevation (Straight Wall)

Walling as previously described. Door opening with stone threshold, steel mesh grille over opening. Some original stone paving at threshold and to west towards curved tower.

East Elevation

Paint (possibly bituminous) on horizontal slate hanging. Painted timber-sheeted framed door having glazed fanlight.

Significant Features

- Surviving cast-iron rainwater goods
- Original stone paving at door threshold

Key Issues

- Extensive cracking and paint flaking to cement-based render

Commentary on proposed use

No use is proposed for this heritage asset as part of the current masterplan.



Fig. 62: North elevation



Fig. 63: East elevation with external stair to first floor



Fig. 64: South elevation

2.2.7 No.07 Burke's House

Date

1935 - 1940

Description

Detached three-bay two-storey former caretaker's house, built 1939, rectangular on plan. Vacated 1986.

Roof

Pitched fibre-cement slate roof with concrete ridge tiles, projecting eaves course apparently in-situ concrete, uPVC or aluminium fascia and moulded gutter to south elevation, timber fascia to north elevation with no surviving rainwater goods, rendered chimneystacks having concrete capping and terracotta pots.

Walls

Cement-based roughcast wall to north elevation on smooth rendered chamfered plinth with rendered quoins to corners; smooth cement-based rendered surface finish elsewhere. Square-headed window openings with cast-in-situ concrete window sills, infilled with strawboard. Square-headed off-central door opening approached by flight of four concrete steps with rendered surround, glazed timber sheeted door. Red brick walling to east side of south elevation obviously of later origin to other walls.

Significant Features

- None

Key Issues

- Fibre-cement slate roofing

Commentary on proposed use

Burke's House is marked for complete demolition as part of the masterplan proposals, subject to relevant permissions. The building is of little architectural or historic interest and is in poor condition. Having been constructed on top of the remains of the late medieval garrison chapel, its demolition could provide an opportunity for archaeological investigation which may inform and contribute to the wider interpretation and understanding of the site.



Fig. 65: South elevation



Fig. 66: West elevation, south side and bund



Fig. 67: West elevation, north side

2.2.8 No.08a Lean-to (Burke's House)

Description

West Elevation

Tooled ashlar limestone stepped quoins, three-brick header arch, timber wallplate. Mono-pitched roof missing from lean-to building. Cast-in-situ concrete bund rising to approximately 1.3 metres.

South Elevation

Tooled ashlar limestone stepped quoins to west side. Uncoursed rubble stonework to main walling. Sloping wall-head capped with in-situ concrete. Square-headed window opening having continuous apparently cast-in-situ surround infilled with strawboard panel.

Significant Features

- Dressed ashlar stonework
- Evidence of former mono-pitched roof structure
- Considerable quantities of loose rubble stone extant within structure

Key Issues

- Roof missing
- Vegetative growth

Commentary on proposed use

Although attached to Burke's House on its eastern side, the lean-to structure clearly pre-dates its construction, having been built at a significantly earlier date. The lean-to is to remain in-situ and does not form part of the demolition works proposed for Burke's House.



Fig. 68: North elevation



Fig. 69: West and south-west elevations



Fig. 70: South elevation

2.2.9 No.08b Store (Rear of Officer's Mess)

Description

North Elevation (Gable)

Brickwork over rubble stone base wall developed in stages, yellowish brick above red brick, all Flemish bond. Two small square-headed window openings each having two brick lintels (two course lintels), heavy painted square section frames with no evidence of sash, evidence of wrought-iron bars; one remaining, one lying on ground.

West Elevation & South-West Elevation (Splayed Wall)

Smooth cement-based render, brick on edge eaves course, roof missing, painted plywood infill panel.

South Elevation

Partly smooth cement-based render to west side, unfinished render to central section, Flemish bond brickwork to east side, brick eaves course continuous across full-length of wall. Granite window sill, window opening built-up with sheeting.

Significant Features

- Some evidence of natural slate mono-pitched roof, although now largely missing

Key Issues

- Roof missing
- Cracking above window head to west elevation suggesting failing
- Extensive cracking and debonding of render
- Brickwork extensively pitted to east side of south elevation

Commentary on proposed use

No specific use is proposed for this heritage asset as part of the current masterplan, other than its continued interest as a surviving feature and part of the wider interpretation of the site. Given its proximity and attachment to building No.5, it has potential to be incorporated into proposals for this area to provide ancillary accommodation which supports the main use.

2.2.10 No.9 Governor's House



Fig. 71: North elevation



Fig. 72: West elevation with later stair to first floor



Fig. 73: Gibbsian door surround

Date

1770 - 1840

Description

Detached eight-bay two-storey over basement governor's house, symmetrical on plan centred on two-bay full-height pedimented breakfront; six-bay full-height rear (south) elevation. Occupied 1901; vacant 1911; burnt 1922; in ruins 1933; reconstructed 1943, to accommodate alternative use; decommissioned 1986.

Roof

Hipped fibre-cement slate roof centred on pitched fibre-cement slate roof (breakfront), roll-top blue/black clay ridge tiles, three smooth cement rendered chimneystacks, replacement uPVC rainwater goods.

North Elevation

Cement-based roughcast rendered walling over smooth rendered plinth, smooth rendered stepped quoins to central and flanking wings. Three-over-six painted timber casement window to first floor with upper three-pane sash opening inwards, slightly projecting smooth rendered reveals to window openings, limestone sills. Square-headed door openings to flanking wings, Gibbsian surrounds, glazed timber sheeted doors.

South Elevation

Cement-based roughcast on brickwork, sills differ from windows to north elevation, some dressed ashlar limestone, one granite and one appears to be limestone with drip moulding below. uPVC soffit and fascia, uPVC gutters.

East Elevation (Gable)

Twentieth-century cast-in-situ concrete external staircase having cast-in-situ concrete columns. Cement-based roughcast on brick walling. Brick dressed opening to first floor. Basement approached by 6no. cast-in-situ steps.

West Elevation (Gable)

Similar in most respects to east elevation. No basement.



Fig. 74: Brick fireplace



Fig. 75: Exposed timber truss roof structure



Fig. 76: Dragon-tie

Interior

Original stop-chamfered four-panel painted timber door to right-hand-side entrance lobby. Kingpost trusses to first floor, dragon beams to corners, 3no. purlins to each slops, vertical sarking boards having nail holes at approximately 600mm centres suggesting these may have been relocated or something previously fixed to surface. Brick fireplace with concrete kerb to right-hand-side room at first floor. Brick fireplace to central room at first floor. Brick fireplace with concrete kerb to room to left-hand-side first floor and to extreme left-hand-side first floor. uPVC windows to rear elevation at first floor. No access to basement.

Significant Features

- Symmetrical composition and Classically-detailed breakfront
- Gibbsian doorcase surrounds
- Brick fireplaces may be of some limited interest
- Surviving timber Kingpost roof trusses and associated roof structure
- Original timber door to entrance lobby

Key Issues

- Extensive falling away of render
- Fibre-cement slate roofing
- uPVC gutters all in very poor condition
- Cement-based roughcast walling generally in poor condition
- Some cracking evident to central column under eastern staircase

Commentary on proposed use

It is proposed that the building could function as the main museum space on the site. The building lends itself to this use given its prominent location and dominance within the parade ground. The size of the building is also well-suited for this use, having a linear layout and split over three levels (including basement).



Fig. 77: West elevation



Fig. 78: Porch



Fig. 79: Connecting wall between building No.10 & 11

2.2.11 No.10 Officer Barrack

Date

1770 - 1840

Description

Detached five-bay two-storey officer barrack, symmetrical on plan, centred on single-bay single-storey flat-roofed projecting porch to ground floor; three-bay two-storey rear (east) elevation. Occupied 1901; vacant 1911; burnt 1922; in ruins 1933; reconstructed 1939' vacated, 1986; renovated to accommodate alternative use.

Roof

Hipped fibre-cement slate roof, concrete ridge and hip tiles, cement rendered chimneystacks, uPVC moulded gutters, fascia, soffit and square-section downpipes. Cast-in-situ concrete roof over porch.

East Elevation

Cement-based roughcast render on masonry background having projecting smooth-rendered plinth. 2no. uPVC casement window in square-headed openings having granite sills to first floor. Painted timber casement windows elsewhere having central opening panel, each panel having 3no panes, stepped brick reveals, slender brick arch, cast-in-situ concrete sill to northern window, granite sill and wrought-iron grille to southern window. uPVC fascia, soffit and moulded gutters, rectangular uPVC downpipes to both ends. Door opening to north approached by two granite steps, height adjusted presumably to reach new floor level, smooth rendered surround, painted timber sheeted door having glazed panel over, now covered with plywood sheet. Cast-in-situ concrete deck, brick flanking walls, cobbles to either side of brick-lined drain to Officer's Barrack side.

South Elevation (Gable)

Similar treatment to east gable elevation of previous building (No.09).

West Elevation

3no. uPVC windows to ground floor, 1no. nine-pane timber casement widow to south side of porch. 2no. uPVC windows to first floor, 3no. three-over-six painted timber inward-opening casement windows.



Fig. 80: First floor bridge to east elevation



Fig. 81: Window to east elevation

Quadrant connecting wall to No.11

Cement-based roughcast render over smooth rendered plinth. uPVC casement window, cast-in-situ concrete coping to wall head.

Interior

No access

Significant Features

- Evidence of door opening at approximately centre of elevation beneath concrete bridge, sandstone threshold step, remainder of evidence not visible
- Surviving timber casement windows
- Surviving timber door to east elevation
- Cast-in-situ concrete bridge

Key Issues

- Major structural crack over window to quadrant wall
- Extensive spalling to soffit of bridge
- Sills rounded and worn to east elevation
- Extensive cracking to brick arches over windows to east elevation
- Wrought-iron window grille heavily corroded
- Door and steps to north side of east elevation in very poor condition

Commentary on proposed use

It is proposed that the building could become the anchor retail unit on the site including an integrated café. Given the buildings immediate proximity to the proposed museum space, it would seem to follow that retail use directly adjacent to this will provide ancillary accommodation which supports and enhances the overall visitor experience. The café has potential to be split over ground and first floors and open onto the rampart at upper level as an outdoor terrace. A retail unit may support the work of local artists and artisans, including those with units on the site, as well as a gift shop linked to the museum experience.



Fig. 82: West elevation



Fig. 83: First floor bridge to east elevation



Fig. 84: Arch under bridge to east elevation

2.2.12 No.11 Soldier Barrack

Date

1770 - 1840

Description

Detached three-bay two-storey soldier barrack, symmetrical on plan; three-bay two-storey rear (east) elevation. Occupied 1901; vacant 1911; burnt 1922; in ruins 1933; reconstructed 1939; vacated 1986.

Roof

Hipped fibre-cement slate roof, concrete ridge and hip tiles, cement-rendered central chimneystack, uPVC fascia, moulded gutter, soffit and rectangular downpipe to south side

East Elevation

Low-level section to south side; cement-based roughcast render, brick dressing to square-headed window opening, smooth rendered plinth, uPVC casement window, cast-in-situ concrete sill. Cement-based roughcast, slightly projecting smooth-rendered reveals to window openings, granite window sills to all four windows, smooth cement-based rendered square-topped plinth, smooth cement based stepped quoins to north, uPVC casement windows to all openings, uPVC soffit, fascia, moulded gutters and square section downpipes.

Bridge to first floor; brick soffit to segmental arch, dressed limestone voussoirs to both sides, brick flanking walls having brick-on-edge coping repairs by cement-based render overlay.

West Elevation

4no. uPVC top-hung casement windows, cement-based roughcast walling, stepped smooth rendered cement-based quoins to both sides, smooth cement-based rendered plinth, smooth cement-based surround to entrance door.

Interior

Brick fireplaces to left- and right-hand-side ground floor rooms. Original four-panelled timber door to right-hand-side of lobby having stop-chamfers. No access to interior of first floor.



Fig. 85: Brick fireplace



Fig. 86: Potentially original timber door

Significant Features

- Brick fireplaces may be of some limited interest
- Original timber panelled door
- Brick arch to east elevation

Key Issues

- Fibre-cement slate roofing
- Render falling away exposing brick window dressings
- Interior substantially remodelled

Commentary on proposed use

It is proposed that the ground floor of this building, as well as No.12 and 13, could be used to provide small workshops, studios or office spaces for craft workers, artists, artisans or other small businesses, start-ups or entrepreneurs. Accommodation use is proposed for the first floor. Being close to the site entrance/ exit, and adjacent to the proposed retail space, artists studios are well-placed in this location and if open to the public could provide added interest to the visitor experience, particularly if traditional crafts are on display. The use of upper floors as accommodation is also well-suited; the first floor being more private as well as making use of separate entrances via existing bridges off the ramparts (No.11 and 12) and an existing external staircase (No.13).



Fig. 87: South elevation, east side



Fig. 88: South elevation, west side



Fig. 89: Bridge archway, north elevation

2.2.13 No.12 Soldier Barrack

Date

1770 - 1840

Description

Detached six-bay two-storey soldier barrack, symmetrical on plan. Occupied 1901; vacant 1911; burnt 1922; in ruins 1933; reconstructed 1939; vacated 1986.

Roof

Hipped fibre-cement slate roof, concrete ridge and hip tiles, cement-rendered chimneystacks, uPVC moulded gutters, fascia, soffit and rectangular downpipes to both sides.

South Elevation

Cement-based roughcast walling, smooth-rendered stepped quoins, smooth cement-based rendered plinth, smooth slightly projecting reveals to square-headed window openings, all windows replaced in uPVC. Square-headed door openings with granite thresholds, smooth cement-based rendered surrounds, glazed timber sheeted doors.

North Elevation

Cement-based roughcast walling, smooth render band to east side, smooth rendered plinth stepping down under bridge, smooth rendered reveals to window openings. uPVC casement window and cast-in-situ concrete sills to all window openings.

Bridge archway to west end having limestone voussoirs rising from conglomerate quoins, rubble-stone spandrels, brick flanking walls, brick to underside of vault. Cement render to flanking wall.

Bridge to east end on elliptical arch, roughly dressed limestone voussoirs, brick soffit, brick flanking walls.

Interior

Timber kingpost trusses, 3no. purlins to each slope, vertical sarking boards potentially re-used from another location. Rudimentary brick fireplaces at first floor.



Fig. 90: Brick fireplace



Fig. 91: Brick fireplace



Fig. 92: Exposed timber truss roof structure

Significant Features

- Brick fireplaces may be of some limited interest
- Surviving timber Kingpost roof trusses and associated roof structure
- Bridge archway and bridge to north elevation

Key Issues

- Fibre-cement slate roof
- Replacement of all windows in uPVC
- Flanking walls to bridges in poor condition, cement-based render falling away and evidence of cracking

Commentary on proposed use

Same as for building No.11.



Fig. 93: South elevation



Fig. 94: External stair to first floor, west elevation

2.2.14 No.13 Barrack Store

Date

1770 - 1840

Description

Detached five-bay two-storey barrack store, extant 1840, on a symmetrical plan. Occupied, 1901. Vacant, 1911. Burnt 1922; in ruins 1933; reconstructed 1939; vacated 1986; renovated to accommodate alternative use.

Roof

Pitched fibre-cement slate roof, concrete angled ridge tiles, cast-in-situ concrete verges, cement-rendered chimney to east side, uPVC moulded gutters, fascia, soffit and rectangular downpipe to west end.

South Elevation

Cement-based wet dash walling, stepped quoins to west side only. Smooth rendered surround to entrance doorway. Smooth rendered cement-based plinth. All windows replaced in uPVC.

West Elevation

Cast in-situ concrete steps having moulded balustrade to west side rising to first floor.

East Elevation

Cement-based roughcast walling. Cast-in-situ concrete verge coping. Smooth rendered plinth.

Gateway and wall enclosing yard to rear

Segmental arched opening cranked on plan. Coursed rubble stone side piers on rubble stone base to south side and dressed ashlar plinth to north side, extensively worn stone threshold, granite platbands at springing level of brick arch, one-and-a-half-brick arch, corrugated-iron gate leading to yard. Opening surmounted by projecting ashlar granite string course with conglomerate stone block course above, largely concealed by vegetation. Wall to north of gateway comprising red sandstone walling projecting approximately two metres beyond gateway then changes to uncoursed rubble shale, wall contains brick dressed opening infilled with brick and remnants of lime-based wet dash clinging to wall surface, opening to north infilled with strawboard panel, return wall collapsed further north.



Fig. 95: Exposed timber truss roof structure



Fig. 96: Brick archway to rear yard

Interior

Timber floor boards, 3no. timber kingpost trusses, 4no. purlins to each slope, vertical sarking boards. Interior ground floor completely re-modelled, walls dry-lined.

Significant Features

- Surviving timber Kingpost roof trusses and associated roof structure
- Timber floor boards
- Stonework gateway to rear

Key Issues

- Fibre-cement slate roof
- Extensive application of cement-based render
- Extensive vegetation to rear slope of roof
- Replacement of all windows in uPVC
- Replacement of all rainwater goods in uPVC
- Interior ground floor completely re-modelled
- Brick arch to gateway falling away in middle of wall and potentially structurally unstable
- Yard wall heavily covered with vegetation

Commentary on proposed use

Same as for building No.11.

2.3

ZONE 03 -

'The Walls'



Fig. 97: Area south of bridge



Fig. 98: Staircase to rampart

2.3.1 No.14 Laneways

Description

SOUTH OF ENTRANCE BRIDGE

East Wall (north of steps)

Battered uncoursed rubble stone, cement-based rendered patching to north side, brick wall approximately ten courses applied to top of wall.

Steps up to Beach Rampart (No.28)

Curved cast-in-situ concrete wall, 14no. cast-in-situ concrete steps, concrete wall approximately 150mm thick. Outer wall to steps base ashlar stonework, upper curved surface brick having soldier course.

East Wall (south of steps)

Battered uncoursed rubble stone wall capped by Flemish bond brick wall having brick-on-edge coping. 3no. segmental stone arches having limestone voussoirs and rubble stone spandrels, splayed brick cappings.

NORTH OF ENTRANCE BRIDGE

South Wall (between steps and Bake House)

Battered uncoursed rubble stone wall rising to vertical brick wall. 4no. half-brick deep recesses in upper brick wall each having splayed brick base, purpose unclear. Vertical brick narrow panel to south, purpose not clear.

Steps up to Marina Rampart (No.29)

13no. ashlar stone risers stepping up to platform. Outer wall to steps being single brick width with brick-on-edge coping and painted tubular steel handrail.

Bake House

Brick arched openings to either side of square-headed door opening, both partially built-up, ashlar limestone sills, brick dressings to reveals, in fact wall mainly brick with cement roughcast. Internally, 3no. brick segmental vaults carried on wrought-iron beams, limewash on rubble stone wall, evidence of potential openings built-up, large wrought-iron horizontal member to right-hand-side of central wall, purpose not clear. Brick piers to either side of door opening having limestone padstones carrying wrought-iron beams. Timber lintels over window openings have disappeared. Remains of stone slab flooring.



Fig. 99: Bake House



Fig. 100: Cobbled surfacing to north



Fig. 101: Wall to northern passageway

East Wall (between Bake House and north passageway)

Battered brick wall with rubble stone capping. Exposed rubble stone base to south end. Remains of cobbled ground surface.

Significant Features

- Largely intact defensive rubble stone walls
- Masonry arches spanning laneway
- Cobble surfacing
- Bake House

Key Issues

- Some voiding and vegetation growth
- Extensive cracking of upper surface to steps leading to Beach Rampart
- Extensive damp staining to Bake House internal walls
- Extensive cement-rich pointing exacerbating decay of brickwork
- Roughcast render extensively detaching to exterior of Bake House

Commentary on proposed use

No specific use is proposed as part of the current masterplan however the area has continued interest as a surviving feature and part of the wider interpretation of the site, as well as facilitating access around it. A number of small rooms, which are built into and below the rampart structure, have the potential to be incorporated into the visitor experience, such as the former Bake House (Fig. 99).



Fig. 102: East wall, north side



Fig. 103: East wall, south side



Fig. 104: Projecting gabled brick insertion in wall

2.3.2 No.18 Ditch & Rampart (Dry Moat)

Description

SOUTH OF ENTRANCE BRIDGE

East Wall

Battered rubble stone wall, brick build-up to north side, mild steel railings to top. Fence terminating at south end at square pier having smooth render faces with mock strap pointing and pyramid cap. Top of wall to right-hand-side of brick pier capped with saddleback rubble stone coping. Evidence of staircase to south end of wall, now removed.

Entrance to underground rooms (Croppy Boy Cell No.35)

Battered wall with opening having tooled ashlar limestone reveals, chamfered corners, tooled margins set under one-and-a-half brick segmental arch capped with rubble stone walling to spandrels and inclined triangular capping which appears to be cement-based mortar.

South Wall

Battered roughly coursed rubble limestone walling, projecting gabled brick insertion in wall having semi-circular plan, recesses to both sides having triangular brick tops approximately one brick deep, gun loop to centre, brick dome, possible seat at base, smooth limestone paving to outer side. Pitches formed from brickwork breaking away to both sides. Top of main wall splayed stone coping capped with cement-based layer which has substantially disappeared to east side.

Bastion

Battered brick walling on slightly steeper rubble stone base, bull-nosed limestone string at top of wall surmounted by brickwork.

West Wall

Battered brickwork wall extensively repointed, bull-nosed ashlar limestone string at top of wall apparently missing to south side. Brick capping to north side having been extensively repaired with modern red brick, projecting brick-on-edge coping severely disrupted and missing above new red brick.



Fig. 105: Bastion



Fig. 106: Battered walls north of bridge entrance

NORTH OF ENTRANCE BRIDGE

West Wall (between bridge abutment and corner)

Battered brick walling, bull-nosed string course at top of batter, surmounted by brick walling higher to either side with projecting double-course brick coping with grass and vegetation over, central section of wall lower. Wall terminates to north end with battered limestone stepped ashlar quoins, round circular on plan feature to top of wall, purpose unclear.

West Wall (between corner and lunette)

Battered brickwork as before. Ashlar limestone bull-nosed string course to top of batter surmounted by brick wall approximately twelve courses high having projecting brick on flat coping surmounted by vegetation. Brick wall rebuilt at north end. Opening to tunnel to higher ground, ashlar limestone to align with wall face and also dressed to accommodate change in direction of wall including unusual folded voussoir stepped to north side. North side of opening contain wrought-iron elements presumably for gate hanging. Pintles on inside face, stone threshold.

West Wall (between lunette and north wall)

Battered brickwork as before. Ashlar limestone bull-nosed string course to top of battered wall. Brick walling to lunette then opening apparently level with bullnose coping, then vertical brick wall to north side of opening leading to turret.

North Wall

Splayed rubble stone end wall not bonded to battered wall to west side, circular rubble stone column to east, purpose not clear, infilled brick arched opening at base of wall, purpose unclear.

East Wall (between north wall and curved corner)

Battered uncoursed rubble stone wall. Curved section parallel with lunette. Stone pen at base of wall having saddleback stone copings, rounded corner, uncoursed rubble stone wall. Purpose of enclosure not clear, extensive disruption to south side.

Well (adjacent to curved corner)

Rubble stone squat base wall to rectangular opening to well, modern galvanised metal grillage on original cast-iron work comprising two beams and fixture containing circular centre with four holes at corners.

East Wall (between curved corner and bridge abutment)

Battered uncoursed rubble stonework, wall head capping with wooden fence. 15no. cast-in-situ concrete steps rising to bridge level, galvanised mild-steel outer balustrade.



Fig. 107: Stone surround to tunnel entrance



Fig. 108: North wall



Fig. 109: Stone pen

Significant Features

- Largely intact defensive masonry walls
- Dressed stonework entrance to Croppy Boy Cells
- Dressed stonework entrance to tunnel from north lunette
- Brickwork sentry box to south wall
- Well and pen to northern section of moat

Key Issues

- Brickwork to top of bastion in poor condition
- Widespread vegetative growth
- Extensive repointing in cement-rich mortar
- Some open joints evident to brickwork
- Significant raising of stonework to tunnel entrance at north lunette as a result of wrought-iron expansion

Commentary on proposed use

No specific use is proposed as part of the current masterplan however the area has continued interest as a surviving defensive feature and part of the wider interpretation of the site, as well as facilitating access around it.



Fig. 110: Exterior wall



Fig. 111: Opening to interior



Fig. 112: Interior wall

2.3.3 No.19 South Lunette

Description

Exterior of lunette wall

Battered brick base then vertical, quadrant on plan, 18no. apertures, mortar band above line of apertures capped by 4no. courses modern red brick originally rendered but largely render has fallen away, saddleback head to wall capped with cement render. Opening to lunette to south side having semi-circular brick arch, stone block to east side having wrought-iron latch plate, wrought-iron plate to west side, remnants of other fixings. Semi-circular headed opening to tunnel having ashlar limestone voussoirs and stepped ashlar limestone reveals, stone threshold, sheet-steel door blocking opening.

Interior of lunette wall

Exposed brickwork laid in header courses, change in brick type towards top of wall, projecting brick base, possibly indicating an original floor level.

Tunnel leading to lunette from laneways (No.14)

Approached by 4no. ashlar limestone steps having ashlar limestone edge to left-hand-side surmounted by modern painted steel tubular balustrade. Cobbled surface to inclined tunnel, stone thresholds to both ends, that to entrance having pintel and evidence of door fixings including shoot bolt. Timber lintel over this opening has disappeared. Stone walls and soffit to arch, shape of arch more pointed than circular but changing to circular brick at end where two openings on splays, one to right-hand-side built-up in brickwork, that on left-hand-side steel sheet door to lunette. Large stone block projecting from left-hand-side of lunette doorway contains mortice presumably for shoot bolt or something similar.

Significant Features

- Surviving defensive masonry fortification

Key Issues

- Cement-based render and capping falling away
- Fracturing of stone caused by expansion of wrought-iron latch plate



Fig. 113: Exterior wall, south side



Fig. 114: Exterior wall, north side

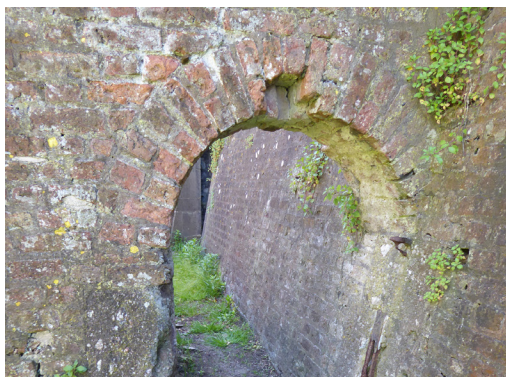


Fig. 115: Entrance to lunette

2.3.4 No.20 North Lunette

Description

Exterior of lunette wall

Semi-circular on plan, battered base rising to vertical wall having 24no. gun loops. Brickwork extensively repaired at one area and wall-head capped with new mortar.

Tunnel leading to lunette from laneways (No.14)

Limewash on thin render to walls and vault, brick semi-circular vaulting, surface rough, door blocks to end of tunnel but door removed, stone paving. Brick half-vault to lower level having ashlar voussoirs. 3no. ashlar limestone risers to upper surface, upper surface having cobbles partially and modern concrete drainage channel to back of building No.12.

Significant Features

- Surviving defensive masonry fortification

Key Issues

- Stone paving in very poor condition beyond end of tunnel



Fig. 116: North wall



Fig. 117: Northern turret

2.3.5 No.29 Marina Rampart

Description

North Wall

Brick and rubble stone wall having lowered opening before curving inwards to east side and climbing slope. 11no. gun loops set in brickwork each having flat stone slab or granite caps. Top of wall with brick-on-edge coping capped with vegetation growth. Brick wall constructed on top of rubble stonework. 3no. limestone steps rising to path leading to turret.

Walls leading to northern turret

North wall contains 5no. gun loops, height of wall approximately 1.2 metres, brick-on-edge coping, coping splayed outwards, splayed down to outer face. Wall rises at abutment with turret. South brick wall steps out after approximately 1.3 metres, wall to rises westwards with brick-on-flat capping and extensive vegetation above.

Turret

Circular on plan turret. Brick wall constructed on ashlar limestone base, brick conical vaulting, 3no. loops each having brick lintel and brick sills, outside of ashlar limestone base has shape of bullnose stringcourse.

East Wall (platformed section)

Battered brick wall with opening in centre, platform covered with grass, approached by 3no. steps to south, front face of platform in brick. Splayed section to south, flush-pointed brickwork, vegetation capping. Brick return wall, splayed reveals to opening leading to grass-covered platform.

East Wall (containing northern gun emplacement)

Central splayed opening with splayed brick side walls, limestone paving to base, splayed limestone flanking walls, main wall battered brickwork surmounted by vegetation.

East Wall (opening to Y-shaped plan area)

Curved brick at entrance, flanking walls vertical and dropping in height breaking to north and south, passageways each containing gun loops, some of those to south having been rebuilt in new red brick, side and back walls constructed in brick and curving back to entrance passageway.



Fig. 118: East wall



Fig. 119: Y-shaped passageway



Fig. 120: Walls leading to southern turret

East Wall (between Y-shaped passageway and southern passageway)

Battered brick wall, 2no. concrete buttresses on concrete deck. Concrete deck extends to brick wall to passageway, limestone boundary to three sides, 3no. former gun emplacements with tapered sides each having stone paving, some granite and some limestone. Limestone drainage channel to base of wall. Opening to flanking wall to south has small tunnel with brick semi-circular-arched top. Leading to 3no. semi-circular arched recesses each having single-brick arch wall-walk above. Brickwork above rising to vegetation to top of wall. 5no. brick steps up to wall walk to south side of arches.

Walls leading to southern turret (No.33)

Brick walling to north side, 2no gun loops to east side, brick turret as previously described. Brick wall to south side containing 5no. apertures, brick coping.

South Wall

Brick wall with dropped opening to east side having limestone sill, thin in-situ cement-based capping to west side, extensive vegetation above, wall walk below brickwork having granite kerbs and concrete infill stepping down to lower limestone and granite steps. Curved limestone margin spanning between south and east wall at base of wall walk.

Walls south of steps up to rampart

One brick thick wall with brick-on-edge coping, rendered to southern return with mild-steel fence. Concrete paving to surface of this area bounded by limestone margin.

West Wall

Brick walling rising to approximately 900mm. Brick-on-edge coping returning to 2no. door openings to building No.12. Rubble-stone wall to north side of northern bridge having brick-on-edge coping, steps down to north having rubble-stone coping, battered down to ground level at northern termination. Granite thresholds to concrete decks to both bridges.

Significant Features

- Surviving masonry defensive fortifications and later twentieth century interventions

Key Issues

- Extensive vegetation and lichen growth
- Significant structural crack to north end of east wall
- Brick coping to wall south of steps in very poor condition



Fig. 121: Recessed arches



Fig. 122: Recessed arches behind building No.9



Fig. 123: Arch with central loop

2.3.6 No.36 Embrasure of Southern Wall

Description

5no. segmental-headed recesses each having brick-and-a-half arches. Rubble limestone piers, rubble limestone above arches capped by brick wall having soldier course to wall walk, each recess having gun loop penetrating wall. Various paving types visible including brick and cobbles and stone slabs. Opening to east side semi-circular and offset to main wall also having brick-and-a-half arch which has substantially collapsed, 3no. loops facing outwards in different directions, remnants of lime plaster. 5no. further arches westwards (rear of building No.9) also having brick wall to wall walk, brick constructed on projecting stone course, bay to left-hand-side canted similar to previous arcade.

Significant Features

- Surviving masonry defensive fortifications and later twentieth century interventions

Key Issues

- Substantial collapse of brick arch to eastern-most arched recess
- Cracking to soffit of eastern-most arch
- Brick in exceptionally poor condition to arches to rear of building No.9



Fig. 124: Existing bridge



Fig. 125: Brick pier under bridge



Fig. 126: Battered wall and bridge connection

2.3.7 No.37 Bridge Entrance

Description

Bridge

Timber planks on 4no. steel I-sections on cast-in-situ concrete bearers on original 2no. brick piers. Pier to east side having semi-circular arches with one brick deep brick voussoirs. Piers two and a half bricks wide.

West Wall (below bridge)

Battered wall, battered also at both ends, capped with vertical limestone string course capped by bullnose tooled ashlar limestone string course returning to both sides, sections missing below bridge deck, hole in base of wall beneath centre of bridge, purpose not clear.

Significant Features

- Intact walls below later replacement bridge

Key Issues

- Some cracking bridge deck

Commentary on proposed use

The bridge is to continue to function as the primary access and egress route to and from the site. It is due to be replaced in the upcoming interim refurbishment works to be undertaken by the Council.

2.4

ZONE 04 -

'The Glacis'



Fig. 127: Entrance steps



Fig. 128: Room one

2.4.1 No.35 Croppy Boy Cell

Description

Entrance Steps

Lime-washed lime plastered walls to both side, gun loop to right-hand-side of entrance, recess with loop of some sort but unclear purpose to left-hand-side, remains of heavily corroded pintles to left-hand-side of opening, replacement sheet-steel door on pintles bolted to masonry reveals. Segmental vault to ceiling. 9no. granite steps descend to passageway, timber handrails to both sides. Chamfered reveals and lintel to opening to curved passageway.

Curved Passageway

Tooled ashlar limestone floor, limewash on lime plaster on rubble stone walling, dress loop to right-hand-side of entrance, semi-circular having limewash on lime plaster on brick structure. Dressed gun loop to right-hand-side approaching end of passage, square-headed opening to first room having ashlar limestone lintels, dressed ashlar limestone reveals and remnants of wrought-iron pintles to left-hand-side.

Room One

Stone slab floor. Lime-washed walls to all walls. Semi-circular-headed opening in centre of wall 1, 2no. quadrant corbels to right-hand-side, square-headed brick-dressed opening to Room 2. 2no. square-headed openings on wall 2. Square rebate to reveals on head to left-hand door opening. Chamfered edges to reveals and head to right-hand opening. 3no. quadrant corbels to left-hand-side of wall 3, square-headed opening to room in centre of wall having splayed reveals, semi-circular-headed niche to right-hand-side of opening on wall 3. Wall 4 having square-headed splayed barred opening looking out over beach, and above splayed sill to opening, purpose not clear. Wrought-iron rails to either side spanning from base of window to underside of vault, purpose not clear. 4no. wrought-iron hoops aligning with limestone sill, purpose not clear. Segmental vault having limewash on lime plaster, probably on brick.

Room Two

Concrete floor. Exposed brick walls. Brick barrel vault ceiling. Segmental-headed door opening to Room 3 having wrought-iron gate matching previous described fencing. Single-brick arch, brick reveals. Timber vertically sheeted ledged-and-braced door.

Room Three

Concrete floor. Brick walls and brick barrel-vaulted ceiling. Fixing on walls, purpose not clear, possibly former wall lining.



Fig. 129: Room five, recess



Fig. 130: Room five, fireplace



Fig. 131: Exit opening from cells

Room Four

Stone slab floor. Limewash on lime plaster walls and barrel-vaulted ceiling. Splayed top at high level on wall 3.

Room Five

Stone slab floor. Limewash on lime plaster to walls and brick vaulted ceiling. 3no. quadrant stone corbels to right-hand-side of wall 1 and left-hand-side to wall 2. Semi-circular-headed recess in centre of wall 2 with marks indicating location of shelves. Fireplace in centre of wall 3 having stepped ashlar stone sides, single brick arch, ashlar limestone lintel beneath brick arch. Dressed stone loop to right-hand-side of fireplace wall 3. Square-headed window opening having bar in centre of wall 4, similar to Room 1 in every respect. Semi-circular-headed recess to left-hand-side of door opening, wall 1 having limestone sill.

Steps leading to casemated battery (No.34)

22no. ashlar limestone steps, semi-circular vaulted ceiling emerging through low square-headed opening having ashlar limestone lintel and reveals.

Significant Features

- Intact below round spaces distinct from anywhere else on the site
- Surviving features including fireplaces and corbels
- Remnants of previous surface finishes including stone slab flooring and lime-based render

Key Issues

- Heavily corroded sheet steel door
- Limewash on lime plaster extensively fallen away to entrance exposing brick construction
- Extensive deterioration of surviving lime surfaces

Commentary on proposed use

The cells are proposed to form part of the immersive visitor experience envisaged for the site. As a distinct feature that is unique in the area, and to the site itself, the below ground cells are an opportunity to provide novel uses which could include seasonal functions such as overnight stays and ghost story/ Halloween tours.



Fig. 132: Lower piers from Duncannon



Fig. 133: Piers and gates leading to site



Fig. 134: Extensive cracking to pier cap

2.4.2 No.38 Main Entrance

Description

Symmetrical gateway comprising pair of ashlar limestone ashlar piers on chamfered ashlar limestone plinths having, rounded pyramidal capping apparently pre-cast in two sections supporting arrow head-detailed wrought iron double gates. Lane fronted at entrance to grounds of Fort with two shorter limestone piers with matching detailing and construction further east.

Key Issues

- Extensive cracking with previous evidence of repairs
- Lichen growth
- Cement-rich strap pointing

3.0

SUMMARY

3.1 Overall heritage asset issues

Duncannon Fort has a layered history with multiple phases of occupation and development. Consequently, the site has been subject to a litany of alterations and interventions, many of which are inappropriate and have been detrimental to both the building fabric and the visual experience of the site.

The following list of issues, which is not-exhaustive, has been identified as part of the high-level survey of the site:

- Extensive application of inappropriate cement-based render which is generally in poor condition with widespread cracking, debonding and falling away and may be exacerbating decay of underlying masonry
- Windows generally replaced throughout in uPVC
- Rainwater goods generally replaced throughout in uPVC
- Roofing generally replaced with fibre-cement (asbestos) roof tiles
- Interiors to buildings within parade ground have been completely re-modelled with few surviving original features (exceptions noted in previous chapters)

3.2 Potential building fabric improvements

Exterior Envelope Improvements

Roofing

With the exceptions of buildings No.05 and 09, all roofs have been re-covered in fibre-cement/ asbestos slating with associated disruptions and alterations to chimneystacks, ridge and hip tiles and verges. Roofing is generally in very poor condition with areas of slipped and missing slates, as well as later repairs. An asbestos survey should be carried out by an accredited asbestos surveyor to identify type, location and quantities, to roofs and elsewhere, as well as recommendations for its safe removal and disposal.

It is recommended that roofs be re-slatted in natural slate, in conjunction with other works (rainwater goods, insulation, etc). Slate roofing is a traditional roofing material with exceptional durability and proven longevity, which is cost effective over the lifetime of a building. Works to roofs should also include complete renewal of all lead valleys, gutters and flashings to the correct code, as well as salvaging and reinstatement of surviving terracotta and blue/black clay ridge and hip tiles and chimney pots.

Walling

There is almost no area on the site which has not been subjected to the extensive application of cement-based renders, repairs and pointing. Much of this is now in very poor condition with widespread cracking and falling away from the substrate, and has potentially caused damage to the underlying masonry. The lasting visual impact is a dull and monotone appearance across the parade ground. The removal of all cement-based render is recommended and replacement with appropriate lime-based render and breathable finish such as limewash or mineral paint. This will improve the aesthetic appearance and overall vibrancy of the site. Removal of cement-based renders also provides an opportunity for an interim drying out period of the solid walls, before application of lime render. The raking out of later cement-based pointing and re-pointing in lime mortar should also be considered, however this should be on a case by case basis.

Rainwater Goods

There has been wholesale replacement of original rainwater goods on the site with uPVC guttering, fascia and barge boards, soffits and downpipes. It is recommended that appropriate cast metal (iron or aluminium) rainwater goods are reinstated. A comprehensive review of rainwater goods should be carried out to inform a reconfigured layout which minimises the need for downpipes and hopperheads to principal elevations. This review should also be informed by measured survey information and preparation of appropriate eaves and verge details for each of the buildings, including reinstatement of timber fascia and bargeboards where relevant, and in conjunction with reinstatement of natural slate roofing.

Thermal Upgrades

Improving the thermal performance of building elements is common practice in most works undertaken to traditional and historic buildings, with obvious benefits such as improving energy efficiency, lowering carbon emissions and fuel bills, and often increasing comfort levels. It may also be necessary to meet building regulation requirements and more widely works towards creating a sustainable environment.

Fenestration

Across the site, the majority of windows have been replaced with uPVC units, which are both inappropriate in a historic setting and ranging from reasonable to poor condition. Removal and disposal of all uPVC windows is recommended in favour of replacement with new traditional timber casement or vertical sliding sash windows as appropriate. Windows should be specified to have slim-profile double-glazing with krypton or xenon filled cavities for superior performance. Consideration may also be given to more innovative products such as vacuum insulating units which provide better performance still, offering the same thermal performance as triple glazing while whilst being 3-4 times thinner. Refer to Appendix C for indicative new window details.

For any of the few surviving timber windows on the site, which are largely located on building No.9 and were likely introduced in the 1940s, the glazing specification may be upgraded in line with above by increasing depths of rebates as well as introducing draught-proofing systems, in conjunction with any repairs identified. Works such as these will improve thermal performance as well as re-introducing traditional detailing and improving the overall appearance, and can also improve acoustic performance.

Insulation

Again, many of the buildings across the site have had their interiors partly or completely remodelled which has included the introduction of modern wall lining systems. Without further investigative works, it appears these systems are plasterboard on timber or metal framing with insulation fitted between studs. It is likely that these systems are no longer performing efficiently and may be exacerbating or creating moisture-related issues within the masonry walls, further compounded by the addition of cement-based render externally.

The addition of insulation can lead to a significant reduction in heat loss and therefore energy costs, however care is needed to ensure the products and systems used are appropriate (in this case for traditional solid wall construction) and do not cause long-term problems. Given there is little surviving internally of architectural interest, it is recommended that insulation be applied internally, rather than externally, which can have a significant impact on the appearance of a building. Insulation will alter the technical performance of the solid wall and a holistic approach should be taken in arriving at the appropriate wall-lining system which considers the intended use, full wall build-up, cost, heating regimes, orientation, exposure and maintenance requirements. Generally in solid wall construction, it is advisable that insulation (and wall finishes) be breathable, such as calcium silicate or wood fibre boards, to allow transmission of moisture through the entire wall construction. In some instances, the use of non-breathable insulation systems may also be warranted.

The application of insulation is also generally extended to both roofs and floors to provide an unbroken layer around the external envelope. In floors, as with walls, the solution may also be breathable or non-breathable. In the case of the former, this can include limecrete or hempcrete floors, or in the latter, closed-cell insulation as part of a concrete slab construction. In roofs, a key consideration will be whether to insulate 'between and above' (warm roof) or 'between and below' rafters (cold roof). The former will inevitably raise the roof line proportionate to the level of insulation applied, typically 75-100mm. This can cause issues at eaves and verges and have an impact on the overall appearance of a building. It does however avoid any clashes associated with internal features such as corncicing or roof structure such as trusses or purlins. Insulating below the between and below the rafter is, generally speaking, the more widely adopted approach however it is important to consider the impact of insulation on any internal features as well as ensuring adequate ventilation paths between the insulation and roof finish. Refer to Appendix B for indicative roof insulation options. In carrying out alterations to historic buildings, including thermal upgrades, any intervention must be weighted against its potential impact on existing features which are of architectural or historic significance.

Performance Upgrades

Upgrades to existing fabric

Although little original fabric survives internally, a number of original panelled timber doors have been identified. These doors should be retained and where necessary, upgraded to meet fire safety requirements which may include the use of intumescent veneers or splitting panels to insert a fire-resisting board.

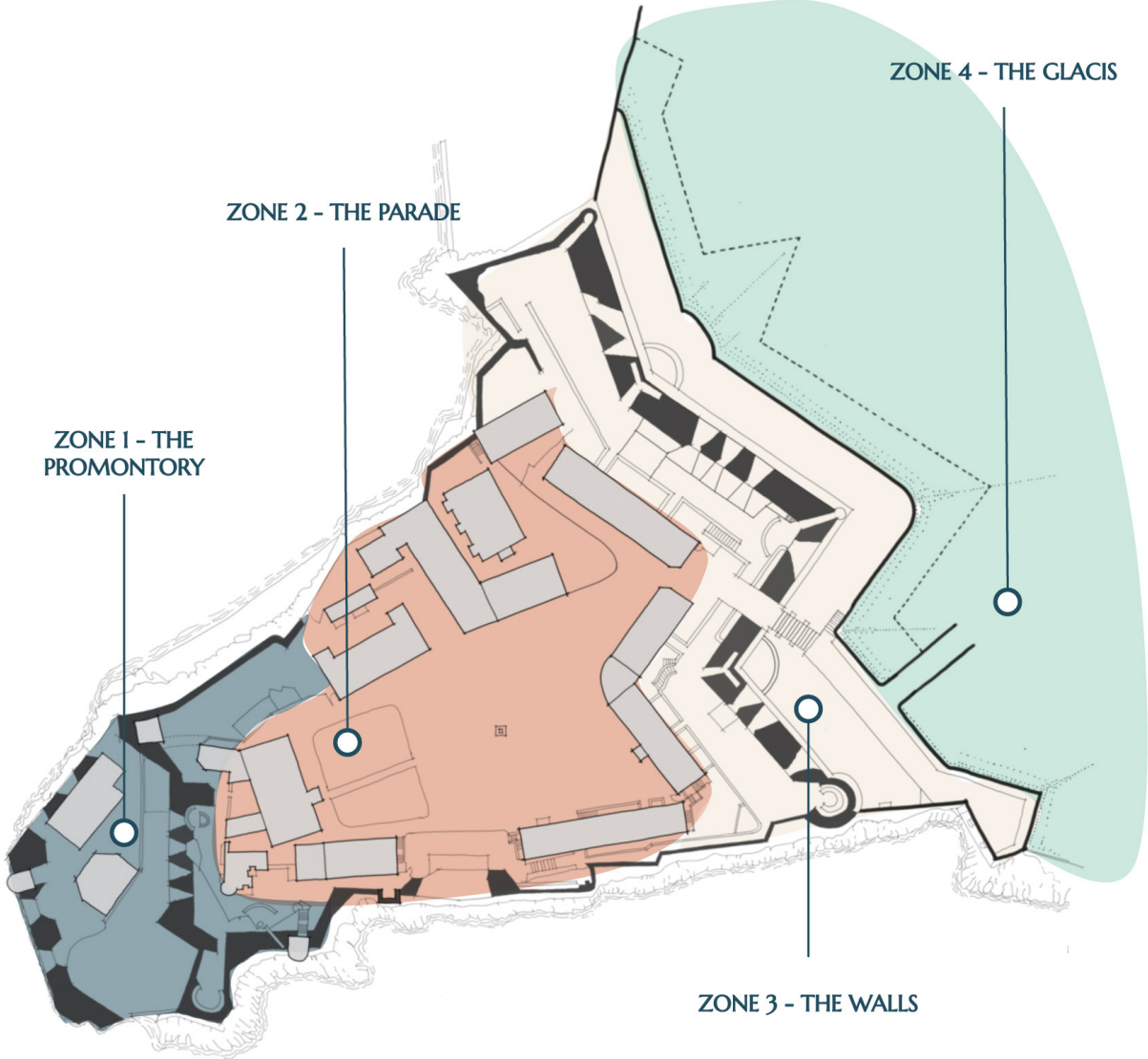
Building service upgrades

It is likely that all existing MEP services within the buildings are no longer fit for purpose nor suitable to meet the new uses proposed within the masterplan. As such, all services will require complete renewal. This provides an opportunity to introduce new services in a discrete manner, allowing the buildings to operate as required for contemporary use while preserving the surviving character of internal spaces. The use and viability of alternative and renewable forms of energy should be investigated, including the use of ground-, air-, and water-source heat pumps, in an effort to improve long-term sustainability and reduce energy costs. There may also be limited scope for the use of photovoltaic solar panels, however given the roofs on the site are largely visible from a range of aspects, this may prove challenging, and the benefit of their installation should be weighed against the impact on the significance of the existing heritage assets. Refer to Sustainability Strategy report by IN2 Engineering.

4.0

APPENDICES

Appendix A - Site Zoning Diagrams



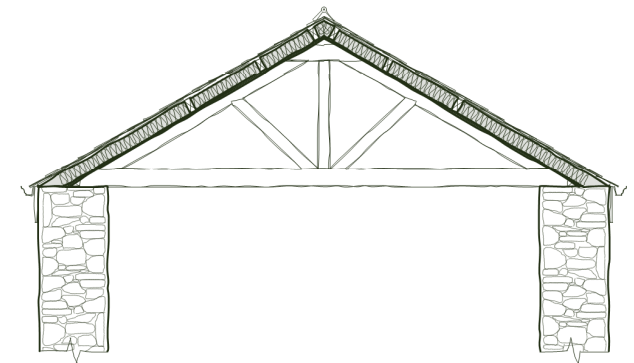
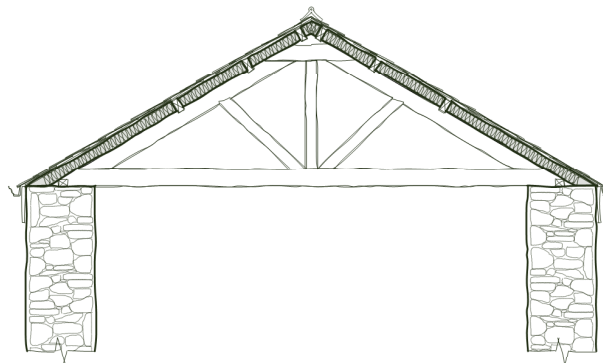
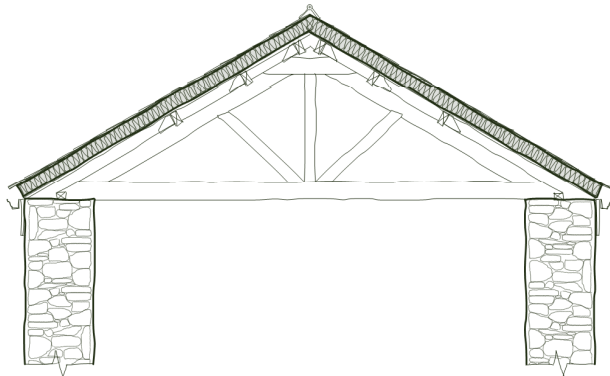






Appendix B-
Indicative roof
insulation options

Indicative Roof Insulation Options



Option 01 Insulation over sarking

- Raises roofline
- Creates issues at eaves and verges, additional works required to adjust gutter level
- + Internal roof structure unaffected

Option 02 Insulation between purlins

- Conceals sarking boards and partially conceals purlins
- Cold bridge at purlin locations
- Depth of insulation may be insufficient

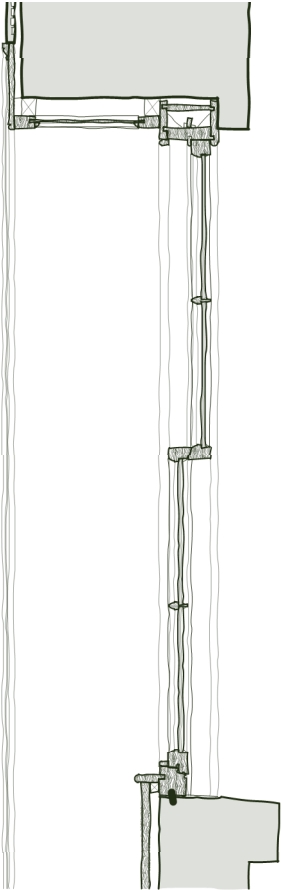
Option 03 Insulation between and under purlins

- Sarking boards and purlins fully concealed
- + Insulation below purlins mitigates cold bridge

Appendix C-
Indicative window
details

Typical New Sash Window Details

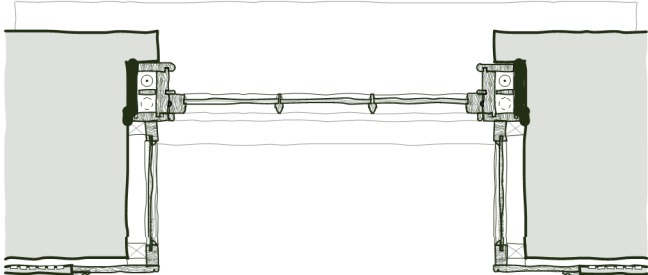
Timber six-over-six sliding sash



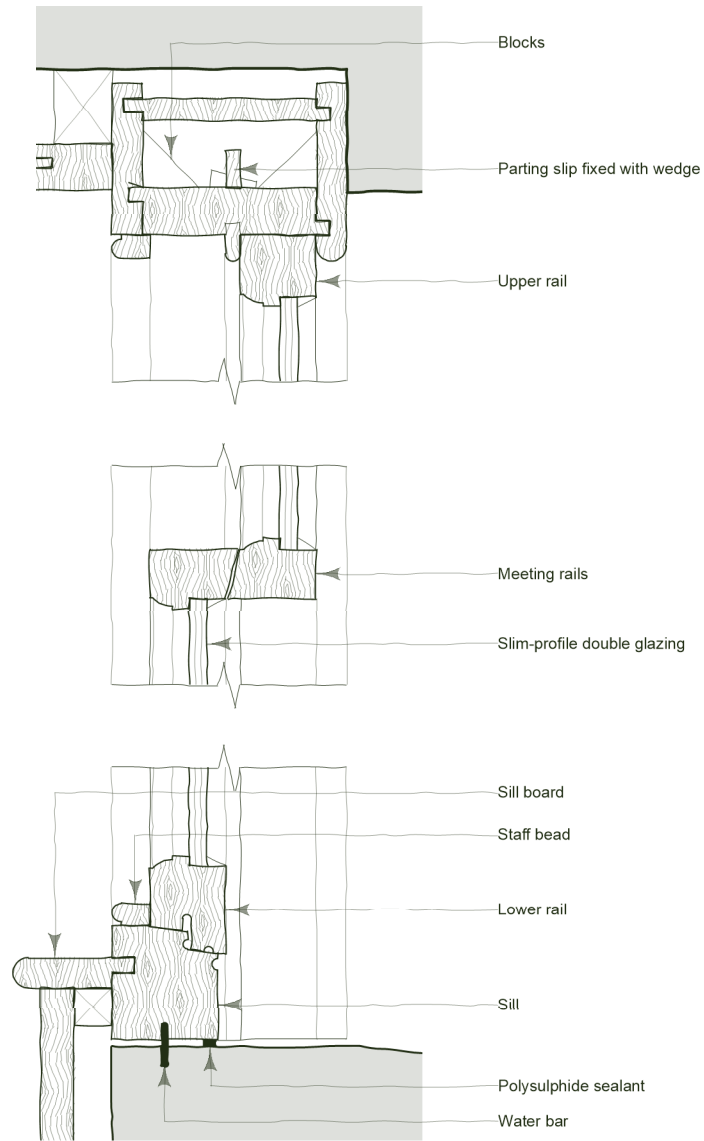
Indicative Section



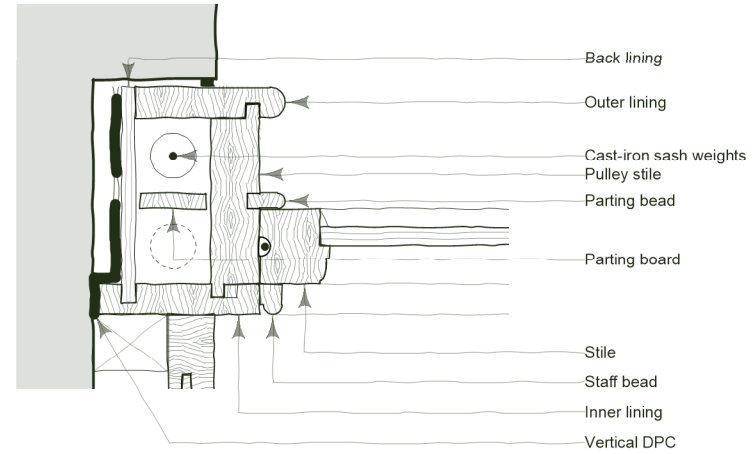
Indicative Elevation



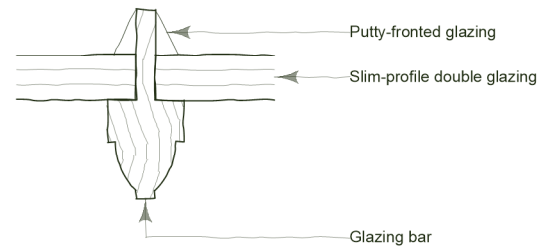
Indicative Plan



Indicative Section Detail



Case Frame Detail



NOTE
Seals and weather-stripping not shown

Glazing Bar Detail

