

**CASHEL CITY WALLS**

**MANAGEMENT PLAN**

**FINAL DRAFT**

**MARCH 2008**

Prepared for

CASHEL BOROUGH COUNCIL

THE HERITAGE COUNCIL

by

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# Chapter One

## INTRODUCTION

### TERMS OF REFERENCE

This Management Plan for Cashel's City Walls has been prepared by Alastair Coey Architects in response to Policy 08 of the Conservation Plan which stated:

*A Management Plan shall be prepared to provide guidance for such matters as the ongoing maintenance, conservation, repair and possible 'restoration' of the Monument and for the organisation of events.*

### PURPOSE OF THE MANAGEMENT PLAN

The purpose of the Management Plan is to provide a reference document which should be central in planning all future work to the walls (subsequently referred to as the Monument).

Chapter Two 'Condition of Upstanding Walls' describes the condition of the Monument as inspected during the preparation of the Conservation Plan in August 2007.

Chapter Three 'The Management Process' outlines the approach to be taken in maintaining, enhancing and exploiting the beneficial potential of the walls.

Chapter Four 'Priorities for Future Action' sets out priorities for the future maintenance, restoration, conservation and development of the walls.

### THE ROLE OF THE MANAGEMENT GROUP

Policy 07 of the Conservation Plan stated:

*A Management Group shall be established and shall meet periodically to review and update the Conservation Plan and the Management Plan.*

## LAYOUT OF THE WALLS

The wall circuit forms an irregular rectangle enclosing an area of 14.5 hectares and perimeter of 1,550 metres. Within the circuit, Main Street extends from the site of Lower Gate, midway along the western line of the town wall, to Canopy Street and the site of Canopy Gate in the north-east. Directly opposite the Bishop's Palace, John Street branches off in a south-easterly direction at approximately the mid-point of Main Street to the site of John Gate, adjacent to the grounds of St. John's Church of Ireland Cathedral. Friar Street also branches to the south-east and travels parallel to John Street to the site of Friar Gate at the eastern side of the town. St. Patrick's Rock (on which is sited St. Patrick's Cathedral, the Round Tower and Cormac's Chapel) rises dramatically to the north of the town and was not enclosed by the town wall circuit.

For clarity and ease of reference the line of the original walls has been sub-divided into five discreet zones as follows:

- Zone One - Friar Street to Canopy Street
- Zone Two - Canopy Street to Dominic Street
- Zone Three - Dominic Street to Main Street
- Zone Four - Main Street to John Street
- Zone Five - John Street to Friar Street

Within each zone, the upstanding remains of the city walls have been identified as Sections A – K. The internal and external faces of each section are sub- divided into numbered subsections prefixed either 'I' or 'E' to indicate either 'internal' or 'external' face. This numbering system is applied consistently throughout the Management Plan and should be used in referencing all future work in connection with the Monument.

## Chapter Two

# ASSESSMENT OF CONDITION OF UPSTANDING REMAINS

### INTRODUCTION

This assessment of condition of the upstanding remains of the Monument was carried out on site in August and September 2007. It is, by its very nature, superficial and restricted by vegetation coverage and inaccessibility caused either by the wall being on private property to which access was not permitted, or concealed by structures built against the wall.

### ZONE ONE

#### Section A-E01

- Wall constructed with locally sourced schist rubble masonry. Extensive open joints to lower reaches.
- Partially covered with vegetation (recently sprayed with systemic weed killer).
- Partially topped with concrete coping.
- Metal tie rod, surrounded with cement-rich infill.
- Cement-rich roughcast render applied to upper reaches of wall.
- Plywood sheeting fitted to south end of wall.
- Telegraph pole located at south end with cable running along upper reaches of wall.
- Electrical supply board in galvanised casing next to galvanised metal lamp standard. Metal bracket housed in wall next to lamp standard. Section of masonry between tie rod and electricity supply board appears to have been undermined, holes evident at ground level, extensive open joints and slippage of stone.

#### Section A-E02

- Section of wall forming gable of abutting house, rubble masonry with later brickwork insertion.
- Heavy woody plant growth to upper reaches.
- Electrical cable spanning across eaves level.
- Protruding concrete lintel to south end.

- Cement-based roughcast, evidence of previous lean-to abutment now removed.
- Open mortices evident to south end in line with previous roof abutment.
- Painted timber moulded bargeboards and soffit.
- Cement-based pointing to upper reaches including extensive open joints.
- Remains of heavy wood plant growth at soffit of eaves now dead.

### **Section A-E03**

- Average height of wall 3.8m.
- Hard cement-based gritty pointing throughout with extensive open joints.
- Patches of plant growth mainly concentrated to upper reaches.
- Masonry to upper 1 metre constructed from larger stone units than lower reaches. Series of metal brackets at high level terminating vertically in centre of section, large concrete infill section located around vertical brackets (reason unclear).
- Large section of poorly applied hard cement-based render or infill to upper reaches and to lower section at north end of wall. Section filled at base of wall to north end. Appears to have been infill of former opening (quoin reveals evident).

### **Section A-E04**

- Average height of wall 4.8m
- Extensive ivy growth covering approximately 50% of wall.
- Minor structural diagonal crack at 45° in centre of wall, galvanised metal lamp standard located against wall.
- Brickwork infill and clear evidence of vertical abutting panels (possible either stepped masonry or former window openings).
- Gutter of abutting building on opposite side of wall showing over top of masonry.
- Extensive open joints to upper reaches of wall.
- Low level concrete block wall with concrete coping retaining shrubbery to north end of wall.
- Protruding masonry to south end of wall at ground level located behind heavy ivy growth. Full assessment not possible.

### **Section A-E05**

- Section of wall inaccessible and obscured with heavy vegetation, evidence of cement-based render at high level.
- Electrical cable running vertically.

**Section A-I01**

- Wall concealed by two-storey building abutting wall, off Catherline's Lane.

**Section A-I02**

- Wall mainly concealed by abutting single-storey lean-to building at Catherline's Lane.
- Exposed section of original wall above ridge line has extensive cement-based pointing and cement based flaunching.
- Light vegetation growth on top of wall.
- Chimney flue from single-storey building rising at north end against wall.

**Section A-I03**

- Wall concealed by gable of one-and-a-half-storey house abutting wall.

**Section A-I04**

- Height of wall 1.5m above step, 2.5m from step to ground.
- Extensive planting in garden belonging to house, light vegetation to top of wall.
- Hard cement-based capping to top of wall.
- Wall stepped in slightly above mid-point. Masonry constructed above this line consisting of larger stones. Extensive open joints throughout.

**Section A-I05**

- Height of wall 1.5m above step, 2.5m from step to ground.
- Light vegetation throughout wall, heavy ivy growth to upper reaches at north end. Minor vegetation mainly concentrated to ledge of stepped masonry.
- Top of wall capped with cement-based mortar.
- Stonework above stepped masonry consisting of larger rubble stones and two sections of incorporated brickwork, variation of open joints, some cement-based pointing and some lime-based pointing. Large section of cement-based infill towards north end with vertical cracking slightly to north side of infill.
- Stepped section in wall with upper portion curved, cluster of mortices evident.
- Brickwork and rubble masonry infill to three no. former openings, decayed timber lintels evident.
- Vertical reveals of brickwork to former opening at top of wall (possibly crenelation). Minor collapsed masonry to lower reaches of north end of wall with evidence of substantial dead woody growth in core of wall.

- Section above decayed timber lintels with approx 45° incline evident with infill rubble masonry above.

#### **Section A-I06**

- Wall concealed by concrete blockwork forming internal face of building storage shed.

#### **Section A-I07**

- Wall partially concealed by two-storey building of masonry construction. Section of wall evident to half length of building, partially lime washed on brickwork piers and mixture of brickwork and masonry walling, blockwork infill to segmental arched opening.

### **ZONE TWO**

#### **Section B-E01**

- Wall approx 4.8m high.
- Inappropriate concrete formed quoins.
- Heavy ivy vegetation to top of wall.
- Cementitious quoins to east end with structural crack at 45° angle now filled with cementitious pointing.
- Cementitious pointing throughout. Three no. square recesses.

#### **Section B-E02**

- Wall partially concealed by garage workshop. Section of wall exposed above roof of garage consisting of mixture of irregularly built rubble masonry and brickwork. Wall slightly recessed to west end.
- Hard cementitious pointing and flaunching.
- Vegetation to top of wall.
- Wall section between garage workshop partially covered with concrete block.

#### **Section B-I01**

- Hard cementitious splatterdash coat on small poorly constructed rubble walling, wall heavily undulating. Average height of wall 5.3m.

#### **Section B-I02**

- Cementitious smooth render to upper section, extensive ivy coverage to 50% of wall.
- Coarse aggregate pointing and building material heavily eroded.
- Structural crack running horizontally approx 3m high.
- Slight vegetation to top of wall.

- Walls abutting building to south side and remains of wall abutting north end with evidence of mortices between brickwork indicating floor level of former building.

#### **Section C-E01**

- Wall approx 4.5m high with slight step in wall approx 1m below head of wall and stepping upwards at mid point.
- Remains of corner of building abutting wall constructed of rubble masonry now at 45° incline, evidence of decayed timber joists in corner. Open joints throughout.
- Light vegetation throughout with heavy wood growth to upper reaches.
- Recent repairs carried out to north east end of wall forming 45° incline, hard cementitious pointing.
- Course aggregate lime pointing evident in poor condition. Extensive open joints evident.
- Evidence of lean-to building south-west end of wall with cement based flashing remnants remaining. Recent rubble stone repairs below.

#### **Section C-I01**

- Sporadic light and woody vegetation throughout.
- Section of wall undermined next to electricity board. Hard cementitious pointing with remnants of lime based coarse aggregate pointing, extensive open joints in isolated areas.
- Recent rubble masonry repairs carried out to either end including approx 2m<sup>2</sup> in centre of wall.
- Vertical lines evident to north east end with quoin formation stonework and infill rubble (probably former openings). Evidence of former opening also to south west end of wall now infilled.

### **ZONE THREE**

#### **Section D-E01**

- Wall inaccessible. Concealed by buildings at no 1 Dominic Street.

#### **Section D-E02**

- Extensive vegetation to top of wall with shrubbery planted along wall.
- Telegraph pole to east end of wall.
- Concrete block wall abutting masonry wall to east end.
- Low level concrete wall between gardens.
- Hard cementitious pointing throughout.

**Section D-E03**

- Extensive heavy vegetation throughout. Condition of wall not determined although open joints are evident.
- Average height of section D ranging between 4.5m and 5m.

**Section D-E04**

- Extensive vegetation throughout. Full condition not determined. Extensive heavy woody growth to upper reaches of wall.
- Approx 5 linear metres of collapsed masonry to south east end of wall approx 1m high.
- Coarse aggregate cementitious pointing and extensive open joints throughout.

**Section D-E05**

- Minor sporadic vegetation to face of wall. Extensive heavy woody growth to upper reaches of wall.
- Hard cementitious coarse aggregate pointing from ground level up to approx 3.5m. Extensive open joints and missing masonry in isolated spots.
- Open joints also located between ground and 1m high.

**Section D-E06**

- Extensive light vegetation mainly concentrated along top of wall. Grass cuttings spoil heap to north-west end. Shrubbery to south east end.
- Wall head dips to approx below 4m high in north-west corner, loose masonry to top of wall along entire length.
- Recent section of masonry repairs at high level in centre of wall, hard cementitious pointing.
- Coarse aggregate cementitious pointing and lime based pointing. Isolated areas of open joints throughout. High level masonry wall abutting north-west end of wall.

**Section D-I01**

- Rubble masonry wall with wide walk approx 8-900mm wide with regular topped low section of wall above, heavy woody vegetation along walk and upper reaches of wall along entire length. Heavy woody vegetation to top of wall with minor light vegetation to face of wall.
- Extensive vegetation with heavy woody vegetation to 70% of wall, extensive open joints throughout, heavy soil vegetation to walk on top of wall.
- Hard cementitious pointing throughout with open joints. Lines evident and poorly tied to original masonry, portion collapsed at high level.
- Coarse aggregate cementitious pointing throughout with extensive open joints.

- Narrower wall with wrought iron spiked gates abutting north-west corner of wall and running north westward.
- Segmental arched recessed niche formed in wall approx 2.46m x 1.77m high and 928mm deep. Head for arch formed in situ with hard cementitious pointing and concrete fill.
- Slate bedding to cill of recessed arch.
- Height of wall to walk approx 3.2m high, upstand of masonry wall above walk varying between 500mm and 1.2m high.
- Gravel pathway approx 4m wide running along entire length of section D with large trees in close proximity to the wall.

#### **Section D-I02**

- Description as for section D-I01.
- Extensive open joints throughout wall, heavy woody vegetation to upper reaches of wall. Wall on opposite end of gravel path partially demolished with gate post hanging at end of section.

#### **Section D-I03**

- Description as for section D-I01.
- Loose masonry along length of wall walk upstand and to outer edge of walk. Two no. large trees at a distance of approx 2m from wall.
- Wall terminating at south-east end with gable of house abutting wall, rendered surface of gable and chimney evident. Extensive rubble masonry spoil heap to south-east end consisting of rubble limestone and pink limestone slabs approx 100mm deep (may have been taken from wall walk). Heavy vegetation over spoil heap.

#### **Section E-E01**

- Rubble limestone wall with varying height from 5m at east and west ends falling to approx 4m in centre. Large structural crack in centre of wall.
- Extensive light vegetation to top of wall with heavy wooded growth to east end.
- Hard cementitious pointing with extensive open joints for approx 9 linear metres of wall at east end with loose masonry at upper level. Wall bulging in main section approx 100mm off plumb and poorly bonded where end of section meets main wall. West end of section intersected by abutting building. Upper portion to west end of wall exhibiting linear breakage tapering rubble above appears to be later addition. Large smooth rendered section below and subsidence of infilled brickwork in former opening to

bottom of west end of section. Note: ground level slightly banked in this location.

### **Section E-E02 - Building**

- Rubble limestone masonry building abutting main city wall, two-storey with barrel vaulted passage through entire length of ground floor.
- Hard cementitious heavy aggregate pointing with open joints and mainly located at high level. Partial collapse of west corner, collapse of masonry to first floor window and to head of ground floor window directly below. Heavy woody vegetation to top of walls and light vegetation to face of wall. Loose masonry along eaves. Wall not tied in at east gable but tied in at west gable.
- Section of infill masonry to south side of west arch with partial collapse of brickwork to base of first floor door opening on west elevation, defective timber lintels over same doorway.
- Limestone rebated door jambs lying redundant within barrel vault.
- Hard cementitious pointing to brickwork barrel vaulted ceiling. Heavy erosion of brickwork resulting in raised pointing, heavy algae growth throughout.

### **Section E-E03**

- Wall varying in height approx 4m high in centre rising at west end where wall curves southward, height of section approx 5.2m with cut limestone coping. Note: sections of cut limestone coping throughout length of wall, several sections missing. Wall also rising to approx 5m at abutment of building.
- Cut limestone arch to east end of section with infill rubble masonry (former opening). Note slightly curved sections approx 1m rising full height of wall located on either side of archway.
- Cut limestone copings lying discarded along base of wall.

### **Section E-I01**

- Extensive heavy plantation and vegetation throughout wall. overall condition unable to be assessed with exception of central area confirming height of wall approx 3.4m high with 1.2m parapet and 2m wide wall walk.
- Arched tunnel through east end of wall walk infilled with rubble masonry to outer face of wall.
- Hard cementitious pointing.

**Section E-I02**

- Extensive heavy vegetation, condition not able to be assessed (note: no wall walk over section).

**Section E-I03**

- Section of infill coarse rubble limestone walling enclosed between vertical cut sides of former building, a portion of which remains to outer wall. Note cut section through building consisting of brickwork formation.
- Heavy vegetation to top of wall.
- Heavy coarse cementitious pointing. Planted shrubbery along wall with modern replica Victorian lamp standard.
- Height of wall approx 4m high.

**Section E-I04**

- Irregular topped rubble masonry wall, vertical structural crack in centre of section.
- Light vegetation to head of wall, minor woody growth to 5% of wall.
- Heavy planted shrubbery along entire length of section.
- Evidence of former lean-to buildings with cement based flashing to east end of section.
- Section of high level masonry wall abutting city wall to east end poorly tied and large 45° structural crack evident.

**Section F-E01**

- Curved section to north end approx 5.5m high, large structural crack on link with straight section of wall, wall battered at base up to approx 2m high.
- Hard cementitious pointing with extensive open joints along base, heavy woody vegetation to high level with isolated vegetation throughout.
- Cut limestone coping along length of wall.

**Section F-E02-E06**

- No access.
- Description as for section F - E01.
- Extensive vegetation throughout. Mainly located to sections 1, 2, part of 3, 5 and 6.

**Section F-E07**

- Wall slightly battered from ground level to approx 1.5m and straight thereafter.
- Wall height varying between 7m at north end dipping to approx 5.5m irregular shape for rest of wall.
- Extensive vegetation to 60% of wall.
- Hard cementitious pointing with extensive open joints. No coping to wall, heavy vegetation and soil to top of wall with

stonework. Section of brick walling to north end; 50% heavily eroded.

- Approx 10 linear metres to south end of wall above battered line built in irregular coursing. Large green area fronting wall.
- Corrugated sheeted tin roofed lean-to building abutting west end of wall.

#### **Section F-E08**

- Wall concealed by building with low section of wall rendered above.

#### **Section F-I01**

- Wall virtually concealed by derelict lean-to outbuildings. Upper portion of wall rendered with smooth cementitious render. Unsightly metal fascia of abutting building to south end with vegetation growth on top.

#### **Section F-I02**

- Rubble limestone walling with high level section approx 5.5m high falling southwards and levelling at approx 3-3.5m high.
- Heavy woody vegetation to top of wall on isolated light vegetation to face of wall also weedy growth along base of wall. Loose masonry to top of wall and heavy sedimentary deposits.
- High level section to north end of section constructed of brickwork, partially collapsed. Smooth cementitious rendered section and derelict concrete blockwork walling of former building abutting wall. Poor condition.
- Section of coarse rubble masonry built near to high rise section of wall.
- Hard cementitious pointing with sections of open joints and large voids in middle of section where wall has partially collapsed.
- Projecting plinth approx 300mm to base of wall in middle of section. Approx 15 linear metres of course cut limestone rubble walling to south end of section with structural cracks evident in middle of section. Unsightly and inappropriate outbuilding located near to wall.
- Large infill concrete shuttering at break between existing masonry and course replacement section.

#### **Section F-I03**

- Extensive woody vegetation throughout, condition not assessable. Note - no wall walk in this section.
- Wall approx 3.2m high.

**Section F-I04**

- Extensive heavy woody vegetation throughout, condition not assessable although note approx 2m wide wall walk evident and also 2m wide limestone paving out from wall walk.

**ZONE FOUR****Section G-E01**

- Description as for G-I01.

**Section G-E02**

- Description as for G-I02 with parapet forming third face of wall.
- Inappropriate and obtrusive timber clad wall of decking material with steps leading down to basement. Builders' material discarded around wall.
- Wooden brackets supporting timber decked planted area along length of section G - E01 with shrubs and conifer trees.
- Note - Electricity service board located next to section. Outside power points also located at flowerbeds.
- Note - wall battered to external face of section G - E02. Slight curve at south end of section G - E01.

**Section G-E04 and I03 - Building**

- Single storey rubble masonry building with brick lined arched windows and door surround. Doors and windows located on east and west sides. Timber lintel wide doorway to south side. Lintel in poor condition, masonry above collapsed with some evidence of concrete blockwork, roof missing. Remains of corrugated sheeted roof.
- East wall tied to main run of wall with west wall untied, one window blocked up.
- Walls in poor condition generally. Brickwork to window reveals on west elevation in poor condition. Remains of smooth lime based render to east wall with splayed reveals to window on east wall (note - reveals do not appear to be splayed to windows on west wall).

**Section G-I01**

- Irregular topped remains of city wall, height varying from 2.8m at south end falling to 2m at north end.
- Recent masonry repairs carried out to top of wall. Highly irregular and capped with cementitious mortar.
- Some evidence of original coarse aggregate lime pointing, however majority of wall with open joints and areas of cementitious pointing.

- Light vegetation to top of wall.

### **Section G-I02**

- Opening created in original wall approx 2.870mm wide.
- Description as for previous section with stepped parapet approx 800mm varying to 600mm in height, step approx 300mm wide capped with cementitious mortar. Irregular bulge at base of wall around middle of section.
- Reveals of opening formed with masonry poorly tied and cracks evident.
- Note - Entire wall section G located next to shopping area, buildings vacant at present. Concrete brick set paving and floodlighting focussed on wall. Steps leading to building at section G - I02. Building approx 600mm off line of wall, debris and litter and obtrusive pipework shown in void.

### **Section H-E01**

- Wall height varying approx 3.5-4m, large section collapsed at wall head down approx 1.5m, surrounding masonry unstable.
- Heavy woody growth to upper reaches of wall (some recently killed and roots severed). Minor vegetation to face of wall.
- Extensive open joints throughout.
- Some evidence of narrow wall walk approx 800mm wide. Stonework unstable.
- Heavy ivy growth to approx 30% of wall, condition underneath not accessible.

### **Section H-E02**

- 90% of wall concealed by heavy woody growth.
- Collapse of masonry to south end remaining stonework unstable.

### **Section H-E03**

- Extensive heavy woody vegetation to top of wall, extensive light vegetation and ivy to 90% of wall. Full condition not assessable. Northern half of wall leaning approx 250mm off plumb with unstable masonry at wall head. Southern half of wall returns sharply and appears plumb underneath vegetation.
- Hard cementitious pointing evident.

### **Section H-I01**

- Wall height varying between 4.5m and 4m.
- Slight batter to 50% of wall with large splayed section in centre. Also stepped out battered section approx 5.8 linear metres in length and 7.8m from south end.

- Heavy woody vegetation to top of walls, loose masonry to top of walls.
- Collapsed portion of masonry to projecting battered section, extensive open joints throughout, loose masonry around bulge around centre of wall with structural cracking to either side. Some loose masonry at ground level along length of walls.

#### **Section I-E01**

- Wall approx 3m high with low level town wall abutting from west.
- Extensive heavy woody growth to top of wall. Loose masonry at top of wall.
- Cementitious repairs and pointing throughout. Open joints also evident.
- Large masonry upstand approx 1m square located at west corner of wall, extensively ivy coverage, detail unclear.
- Loose masonry and partial collapse of head of wall.
- Oil tank located at east end of section.

#### **Section I-E02**

- Wall concealed by series of lean-to single-storey buildings located on hospital grounds.

#### **Section I-E03**

- Wall height approx 3.5m high.
- Extensive vegetation and woody growth to top of walls, light vegetation to face of wall.
- Extensive cementitious pointing throughout, exposed section of wall located between hospital buildings, wooden shed and galvanised extinguisher storage pen located against wall.

#### **Section I-E04**

- Wall concealed by mortuary building abutting wall on hospital grounds. Upper section of wall approx 800mm high evident above roof line of mortuary with extensive vegetation.

#### **Section I-E05**

- Extensive vegetation to wall head.
- Extensive timber shoring to wall where opening has been formed. Shuttering poorly erected, concrete infill to core of wall, wall cut back to 45° angle.
- Cementitious pointing throughout.
- Core of wall underneath concrete infill subsided.

#### **Section I-E06**

- Road passing through recently formed opening in city wall. Exposed ends of wall as noted in adjacent sections and unfinished.

#### **Section I-E07**

- Steel raking shores with stone filled gabion cage support system, slight movement in shoring. End of wall at opening raked back 45° with large amount of concrete infill.
- Extensive vegetation to head of wall with light vegetation to face of walls.
- Cementitious pointing throughout with extensive open joints.
- Wall varying in height, averaging approx 3.2m.
- Note - Steel raking shoring appears to be leaning north eastward.

#### **Section I-E08**

- Wall height approx 1.6m above raised masonry flower bed, note flower bed approx 600mm high and 1.8m out from wall.
- Extensive planting in flower bed, extensive vegetation to top of wall and light vegetation throughout face of wall. Fir tree to west end of wall approx 500mm from city wall and bedded within flower bed.
- Extensive open joints and cementitious pointing. Approx 6 linear metres of horizontal joint evident at west end topped with two rows of stone.
- Width of wall partially broken at oil tank location at east end of section.

#### **Section I-E09**

- Section of wall concealed by house off John Street. High level rendered link between abutting buildings may be remnants of city wall.

#### **Section I-I01**

- Wall height approx 4m, heavy masonry used at high level roughly approx 600mm high with extensive open joints.
- Hard cementitious pointing throughout with open joints.
- Brick lined former door opening in wall now infilled with rubble. Lintel missing with partial collapse of masonry above.
- Heavy wooded growth along top of wall.
- Horizontal joint approx 3m from ground level running for 75% of length of wall with open joints and light vegetation growing out of.
- Blockwork built building abutting outer face of wall with corrugated roof sheeting.

- Apple tree approx 5m from wall.
- Another doorway located to east end blocked up with concrete block and rubble masonry. Note - collapse of masonry above head of door.
- Note - Both doors located approx 3m in from either end of wall.

### **Section I-I02**

- Extensive ivy cover and woody growth to top of wall. Ivy covering approx 40% of wall. Extensive timber shoring to east end of wall where opening for through-road created. Note condition of opening in exterior sections.
- Cased concrete underpinning to approx 8 linear metres of wall, poorly constructed, inappropriate and unsightly.
- Extensive loose masonry to entire length of wall at ground level with some collapse.
- Extensive open joints throughout and evidence of cementitious repairs. Extensive collapsed masonry to west end of wall with plywood hoarding in place.

### **Section I-I03**

- See description for section I-E06.

### **Section I-I04**

- Extensive steel retention system in place at east end of wall, wall and grounds to inner face significantly lower than outer face.
- Four no. sections of protruding in situ formed concrete retention, possibly underpinning wall also. Inappropriate, poorly constructed and unsightly.
- Small section of temporary timber propping of wall.
- Height of wall approx. 4m high overall with significant wide wall walk approx 1m wide at approx 2.5m from ground level.
- Walls heavily covered with woody growth and vegetation. Extensive loose masonry to parapet along wall walk with partial collapse and extensive open joints between concrete panels.
- Note - wall walk appears to step up eastward above concrete panels.
- Series of narrow mortices in wall, most significant being those located next to stepped part of wall walk. Mortices approx 100mm square and pass deeply through wall, no evidence of opening on other side.
- Note - Low level town wall abutting east end of section with blocked up gateway.
- Note - Retention system running approx 16m to west end of section and rising full height of wall.

- Large conifer tree in close proximity to outer face of wall approx midway.

#### **Section I-I05**

- Access restricted, survey conducted from rear garden of neighbouring property.
- Extensive vegetation throughout.
- Extensive open joints, isolated cementitious repairs, note - large section of infill rubble to west end appears to be built without mortar.
- Series of square formed mortices along length of wall.
- Width of wall interrupted with partial collapse, thinner skin of wall abutting and continuing eastward.

### **ZONE FIVE**

#### **Section J-E01**

- No access although viewed from distance. Heavily overgrown with extensive vegetation.

#### **Section J-E02**

- Slight unevenness of wall.
- Extensive light vegetation to face of wall with minor heavy vegetation on wall top.
- Horizontal crack approx in line with wall walk on other side.
- Wall height approx 4m.
- Extensive open joints throughout.

#### **Section J-E03**

- Wall approx 4m high with minor vegetation on top. Light vegetation to face of wall.
- Extensive collapse of masonry in middle of wall with horizontal cracking.
- Isolated patches of loose crenulated rubble stone used on wall head. Note - length of wall cordoned by site guard to prevent falling masonry.
- Extensive open joints throughout.
- Horizontal crack at upper reaches of wall coinciding with wall walk on other side.
- Coarse aggregate lime based pointing heavily eroded with cementitious pointing throughout.
- Note - Wall curves slightly eastward and returning north westward with new inappropriate rubble stone masonry wall abutting corner.
- Note - Wall located within housing development serving as vehicle entrance. Two no. modern Victorian style lamp standards located against wall.

- Extensive mature trees to opposite side of wall overhanging lane. Series of vertical structural cracks at approx 3m intervals mainly concentrated to eastern half and possible where displaced section occurs on inner face.
- Note - Several holes with missing masonry.
- Rubble infill masonry and heavy vegetation evident to east end where gate opening evident on opposite side of wall.
- Extensive horizontal displacement crack approx. 40mm wide at widest point running through middle of wall from western end to central section and turning upwards to top of wall.

### **Section J-I01**

- Section located to south west end of entire section J to include Hackett effigies.
- Light vegetation to wall top, wall capped with stone at incline towards inner side.
- Extensive open joints and structural crack midway along section.
- Evidence of former door opening with long stone lintel located to west end of wall now infilled with rubble masonry.
- Cementitious pointing.
- Cut voussoired segmental arched gateway (formerly known as John's Gate) now infilled with rubble masonry forming niche, two no. cut voussoired pedestrian entrances, now infilled with Hackett effigies and rubble masonry. Soffit of arch of main gateway lined with cementitious mortar resulting in leaching of lime.

### **Section J-I02**

- Wall height approx 2.5m to 800mm wide approx wall walk and 500mm high parapet to outer face. Top of parapet topped with crenulated type rubble stone of recent addition.
- Extensive vegetation to top of wall although light, minor light vegetation to face of wall.
- Inner face of wall battered and slightly curving eastward.
- Hard cementitious pointing throughout with evidence of coarse aggregate lime pointing and extensive open joints.
- Masonry loose to upper reaches of wall along wall walk.
- Large section of masonry approx 1m below wall walk and around 3m long structurally displaced towards outer face, large voids evident and partial collapse of masonry.
- Note crack protrudes along horizontally with loose masonry approx another 15m beyond displacement running westward.
- Some minor subsidence of masonry at ground level to east end of elevation.
- Rubble stone used as edging as path along perimeter of wall.

**Section J-I03**

- Cut limestone voussoired four centred arch, former gateway now infilled with rubble masonry forming niche recess. Stonework to soffit of arch partially loose.
- Parapet shallower than previous section, approx 300mm high.
- Four centred arch cut voussoired former pedestrian entrance now infilled with Hackett effigy.
- Light ivy vegetation to top of wall with light vegetation to face on wall.
- Extensive open joints and hard coarse aggregate cementitious pointing.

**Section K-E01**

- Wall height approx 3.5m.
- Wall completely re-pointed with cementitious pointing.
- Wall relatively clear of vegetation with exception of minor vegetation and woody growth at top of wall.
- Wall incorporated into petrol station forecourt.

**Section K-E02**

Wall completely concealed by petrol station service reception and other buildings

**Section K-I01**

- Details as for section J-I03. One no. delaminating voussoir. Parapet shallow and heavily infilled with concrete topping.

**Section K-I02**

- Extensive woody vegetation to upper reaches of wall with light vegetation throughout face.
- 50% of wall battered inwards at top with sharp incline of infill concrete.
- 50% of wall head covered with projecting corrugated sheeted roof from adjoining building on outer side.
- Extensive subsidence of half-height of wall running virtually entire length with discarded cut limestone masonry most likely to have been used on church building.
- Wall generally in poor condition.
- Wall continues north westward by adjoining masonry wall.

## Chapter Three

# THE MANAGEMENT PROCESS

### THE NEED FOR A MANAGEMENT PLAN

*Management Plans provide the means for establishing an appropriate balance between the needs of conservation, access, sustainable economic development, and the needs of the local community ... an underlying principle is that of 'sustainability' which strikes a balance between maximising enjoyment and use ...while still preserving the values and fabric of the site and its setting and ensuring that their universal significance is not impaired for future generations.*

Hadrian's Wall World Heritage Site Management Plan 2002-2007

After formal adoption of the Management Plan, it is anticipated that the Plan will have a five-year lifespan and that it will be reviewed in year four.

The Management Plan should be regarded as an evolving document, the primary aim of which is to achieve a co-ordinated approach to management between the various organisations already involved in maintenance and conservation and those that may become involved in the future.

### MANAGEMENT PROCEDURES

The purpose of the management and maintenance procedures contained in this Management Plan is to provide a guide for the future development and management of Cashel City Walls, taking into account practical requirements for use as well as the retention of significance. Systematic, regular and prompt minor remedial works will ensure that the Monument will continue to stand for the foreseeable future.

The procedures are framed to:

- be flexible enough to facilitate the continued use of the Monument;
- retain or complement the character and quality of the existing structures when planning repairs, adaptations or development;
- respond to existing or proposed patterns of development

which might adversely affect the Monument and which might be in need of modification;

- emphasise the need to include conservation advice within the decision-making process of future developments.

The following definitions are taken from the 'Australia ICOMOS Charter for the Conservation of Places of Cultural Significance' (The Burra Charter):

**Fabric** means all physical material of the Monument.

**Conservation** means all the processes of looking after the Monument so as to retain its cultural significance. It includes management and may according to circumstance include preservation, restoration, reconstruction and adaptation and will be commonly a combination of more than one of these.

**Maintenance** means the continuous protective care of the fabric, contents and setting of the Monument, and is to be distinguished from repair. Repair involves restoration or reconstruction and it should be treated accordingly.

**Restoration** means returning the existing fabric of the Monument to a known earlier state by removing accretions or by reassembling existing components without the addition of new material.

**Reconstruction** means returning a part of the Monument as nearly as possible to a known earlier state and is distinguished by the introduction of materials (new or old) into the fabric. This is not to be confused with either re-creation or conjectural reconstruction which are outside the scope of the Charter.

**Adaptation** means modifying the Monument to suit proposed compatible uses.

**Compatible use** means a use which involves no change to the culturally significant fabric, changes which are substantially reversible, or changes which require a minimal impact.

## **BASIS OF APPROACH**

The Burra Charter is a useful general guide to the conservation of places such as Cashel City Walls. It provides a philosophical framework that can be flexible and recognises the need for the continued development that is associated with continuing occupation of a site.

## MANAGEMENT

Without pro-active monitoring, the Management Plan will be ineffective. A properly functioning Management Group will be essential to the effective management of the Monument. The function of the Management Group will be to:

- ensure that the procedures contained in this Management Plan are implemented;
- monitor the progress and success of implementation;
- set out timescales for delivery of policies outlined in the Conservation Plan;
- manage a budget relating to the walls;
- approve and monitor Walls-based events.

Meetings of the Management Group will be chaired by a senior representative of Cashel City Walls, who will have an ongoing involvement.

The Management Group should aspire to the appointment of a Monument Manager as a full-time appointment based in Cashel. This role will require a balance of administrative, technical and personnel skills. It will be the Manager's responsibility to ensure the objectives of the Management Plan are met. The Manager, in consultation with other organisations involved in the management of the Monument, will prepare an annual programme of work for agreement by the Management Group. The Manager will prepare annual progress reports. The Manager will be responsible for obtaining, collating, and archiving all documentation, whether historical or arising from current work programmes, relating to the Monument.

The Committee Members will be the designated representatives of each of the organisations involved in the management, maintenance, restoration, reconstruction, and adaptation of the Monument. The Committee Members must have a working knowledge of the Monument and decision-making authority.

The Management Group will have two set meetings per year. An agenda will be prepared in advance by the Monument Manager. One of the first tasks of the Management Group will be to set key objectives for completion within the five year lifespan of the Management Plan (this could include identifying priorities for restoration, implementing a pedestrianised walking route, implementing a formalised guiding system, or preparing a programme of events).

## **CONTINUITY OF CONSERVATION ADVICE**

Irreparable damage can be caused to historic monuments by inexperienced or inadequate professional advice. Implementation of the procedures contained in this Management Plan can only be successfully achieved if work is conceived and implemented under the guidance of appropriately qualified professionals and tradespersons.

### **Archaeologists**

The Monument is of immense archaeological significance. Arguably, the greatest interest lies below ground, in stretches not previously accessible, and in the core structure of the walls, all of which have been less disrupted with the passage of time and may therefore contain more of direct archaeological interest than those readily accessible upstanding portions. Archaeologists employed to work on the Monument should have demonstrable experience of work on similar structures and preferably have specific experience of Cashel.

### **Architects**

Architects should have proven capacity to lead a team and have demonstrable experience of work on historic masonry structures. They should either be Grade One accredited in conservation by the Royal Institute of Architects in Ireland or an equivalent professional body.

### **Structural Engineers**

Structural Engineers should have demonstrable experience of work on historic masonry structures and preferably be accredited in conservation.

### **Tradespersons**

All tradespersons engaged to work on any aspect of the Monument should be given a basic introduction to its significance and the need for meticulous attention to detail and compliance with standard procedures. Where appropriate, evidence of previous relevant experience should be sought before a tradesperson is engaged and, if necessary, specialist training, for example, in the practical use of lime mortars should be provided.

## **DIRECTORY OF PARTNER ORGANISATIONS**

The following list comprises the main partner organisations with responsibility for the management of the Monument:

**Cashel City Walls Management Group**

Contact person: Marie McGivern  
Tel: 062-64711  
Fax: 062-64797  
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Website: <http://www.casheltc.ie/>  
Postal Address: Civic Offices,  
Friar Street,  
Cashel,  
Co. Tipperary

**Department of the Environment Heritage and Local Government**

Contact person: Nessa Roache  
Tel: 01-8883165  
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Email: [nessa.roache@environ.ie](mailto:nessa.roache@environ.ie)  
Website: <http://www.archaeology.ie/>  
Postal Address: Dún Scéine, Harcourt Lane, Dublin 2

**Office of Public Works**

Contact person: Aighleann O'Shaughnessy  
Tel: 01-6476000  
Fax: 01-6610747  
Email: [aighleann.oshaughnessy@opw.ie](mailto:aighleann.oshaughnessy@opw.ie)  
Website: <http://www.opw.ie/>  
Postal Address: 51 St. Stephen's Green, Dublin 2

**STATUTORY PROVISIONS AND PROCEDURES****Introduction**

This Management Plan does not in itself have statutory status and does not supplant the responsibilities of partner organisations or the legislative framework.

It is important that all management procedures carried out in connection with the Monument demonstrate best practice and comply with all relevant statutory requirements.

**MAINTENANCE****Introduction**

The maintenance of historic structures is a matter of considerable importance. The added value of well-maintained heritage assets, such as Cashel City Walls, particularly (but not only) in the context of tourism, is inestimable.

Although generally neglected, maintenance is not a mysterious art. The implementation of the following maintenance tasks, whether of a routine or occasional nature, will ensure that the Monument is presented in the most effective manner and will assist in avoiding or deferring more large-scale interventions.

## Routine maintenance tasks

<b>Global inspection of Monument</b>	
<b>Description of procedure:</b>	Visual inspection to identify sudden changes such as acts of vandalism, development of potential risk situations etc
<b>Location:</b>	Primarily paths, wall walkways, platforms and steps but also vertical surfaces and adjoining land and property
<b>Currently carried out by:</b>	<i>insert name</i>
<b>Frequency</b>	Daily
<b>Equipment required:</b>	None
<b>Comment:</b>	This daily inspection could be carried out by a town warden with other responsibilities not directly connected with the Monument

<b>Dry cleaning of surfaces</b>	
<b>Equipment required:</b>	Sweeping of horizontal surfaces to remove dust, small litter etc
<b>Comment:</b>	Paths, wall walkways, platforms and steps
<b>Currently carried out by:</b>	<i>insert name</i>
<b>Frequency:</b>	Weekly
<b>Equipment required:</b>	Automatic brushing machine, brushes and shovels
<b>Comment:</b>	

<b>Lighting</b>	
<b>Description of procedure:</b>	Checking condition of fittings. Cleaning of fittings. Replacement of luminaries.
<b>Location:</b>	Paths, wall walkways, platforms and steps
<b>Currently carried out by:</b>	<i>insert name</i>
<b>Frequency:</b>	Biannually
<b>Equipment required:</b>	Appropriate access equipment
<b>Comment:</b>	Light bulbs should be replaced within one week of failure. Damage to electrical fittings should be rectified immediately upon identification.

<b>Cleaning of gulleys and drains</b>	
<b>Description of procedure:</b>	Removal of sediment from traps and drains
<b>Location:</b>	Paths wall walkways, platforms
<b>Currently carried out by:</b>	<i>insert name</i>
<b>Frequency:</b>	Annually
<b>Equipment required:</b>	Specialist equipment
<b>Comment:</b>	Responsibility for drain cleaning has not been clearly established

<b>Litter picking</b>	
<b>Description of procedure:</b>	Removal of dropped litter, including papers, packaging, cans and bottles
<b>Location:</b>	Paths, wall walkways, platforms and steps
<b>Currently carried out by:</b>	<i>insert name</i>
<b>Frequency:</b>	Daily
<b>Equipment required:</b>	Hand-operated mechanical grabs, protective clothing, litter sacks
<b>Comment:</b>	

<b>Bin emptying</b>	
<b>Description of procedure:</b>	Removal of plastic bin liners and contents from official litter bins
<b>Location:</b>	Wall walkways and platforms
<b>Currently carried out by:</b>	<i>insert name</i>
<b>Frequency:</b>	Daily
<b>Equipment required:</b>	Wheeled litter cart
<b>Comment:</b>	Frequency of bin emptying should be reviewed regularly to ensure that bins in certain locations do not overflow

<b>Dog fouling</b>	
<b>Description of procedure:</b>	Removal of animal faeces and disinfection of surface
<b>Location:</b>	Paths, wall walkways, platforms and steps
<b>Currently carried out by:</b>	<i>insert name</i>
<b>Frequency:</b>	Daily
<b>Equipment required:</b>	Proprietary machine
<b>Comment:</b>	Enforcement has been proved to dramatically the incidence of dog fouling

<b>Inspection of surface condition</b>	
<b>Description of procedure:</b>	Visual inspection of all pedestrian surfaces
<b>Location:</b>	Paths, wall walkways, platforms and steps
<b>Currently carried out by:</b>	<i>insert name</i>
<b>Frequency:</b>	Once every eight weeks
<b>Equipment required:</b>	Visual inspection
<b>Comment:</b>	

<b>Cleaning of seats, signage, interpretation panels, and litter bins</b>	
<b>Description of procedure:</b>	Cleaning with soapy water
<b>Location:</b>	Various locations
<b>Currently carried out by:</b>	<i>insert name</i>
<b>Frequency:</b>	See comment
<b>Equipment required:</b>	Cleaning equipment
<b>Comment:</b>	The need for cleaning of furniture is difficult to predict and a balance needs to be struck between prompt action as a result of abuse and routine maintenance necessary to keep the furniture in good condition. Experience will inform the frequency of the latter.

### Occasional maintenance tasks

<b>Removal of litter from yards and rear gardens of properties abutting the Walls</b>	
<b>Description of procedure:</b>	Removal of accumulated litter
<b>Location:</b>	Spaces which are not normally accessible such as private yards and narrow gaps
<b>Currently carried out by:</b>	<i>insert name</i>
<b>Frequency:</b>	Annually
<b>Equipment required:</b>	Access equipment
<b>Comment:</b>	Arrangements need to be made with owners prior to carrying out work.

<b>Wet cleaning of surfaces</b>	
<b>Description of procedure:</b>	Removal of urine, excrement and vomit from surfaces
<b>Location:</b>	Paths, wall walkways, platforms and steps
<b>Currently carried out by:</b>	<i>insert name</i>
<b>Frequency:</b>	When required
<b>Equipment required:</b>	Power washing equipment
<b>Comment:</b>	Removal to be carried out within four hours of notification

<b>Treatment of snow and ice</b>	
<b>Description of procedure:</b>	Application of 'salt' to slippery surfaces
<b>Location:</b>	Wall walkways, platforms and steps
<b>Currently carried out by:</b>	<i>insert name</i>
<b>Frequency:</b>	When required
<b>Equipment required:</b>	
<b>Comment:</b>	Advance warning of icy conditions should enable application of 'white salt' to be carried out before ice forms. Consideration needs to be given to the negative visual impact

<b>Removal of unauthorised items</b>	
<b>Description of procedure:</b>	Removal of posters, fencing, abandoned cars, kitchen equipment, garden waste etc.
<b>Location:</b>	Wall walkways, platforms and steps
<b>Currently carried out by:</b>	<i>insert name</i>
<b>Frequency:</b>	When required
<b>Equipment required:</b>	
<b>Comment:</b>	

<b>Treatment of weeds</b>	
<b>Description of procedure:</b>	Removal of weeds
<b>Location:</b>	Paths, walls, walkways, platforms and steps
<b>Currently carried out by:</b>	<i>insert name</i>
<b>Frequency:</b>	Annually
<b>Equipment required:</b>	Spraying equipment, hand tools
<b>Comment:</b>	There is a debate as to whether chemical spraying or scuffling is more effective. Application of systemic surfactants is ineffective if weeds are not actively growing and if weather conditions are not suitable.

<b>Tree surgery</b>	
<b>Description of procedure:</b>	Removal of dead branches and overgrowth
<b>Location:</b>	<i>Complete if applicable</i>
<b>Currently carried out by:</b>	<i>insert name</i>
<b>Frequency:</b>	Annual
<b>Equipment required:</b>	Safety equipment
<b>Comment:</b>	This work should only be carried out by an experienced tree surgeon.

<b>Redecoration of metal work</b>	
<b>Description of procedure:</b>	Preparation and repainting of cannon, gates, railings, handrails etc.
<b>Location:</b>	Various locations
<b>Currently carried out by:</b>	<i>insert name</i>
<b>Frequency:</b>	Biennial
<b>Equipment required:</b>	Painter's equipment
<b>Comment:</b>	

## Response tasks

<b>Vandalism - Graffiti</b>	
<b>Description of procedure:</b>	Removal of paint-based graffiti from surfaces
<b>Location:</b>	All surfaces
<b>Currently carried out by:</b>	<i>insert name</i>
<b>Frequency:</b>	When required
<b>Equipment required:</b>	Varies depending on nature of graffiti and background to which it is applied
<b>Comment:</b>	Small samples should be tested before embarking on major removal

<b>Vandalism - Physical damage to fabric</b>	
<b>Description of procedure:</b>	Repairing or replacing damaged fabric
<b>Location:</b>	Various locations
<b>Currently carried out by:</b>	<i>insert name</i>
<b>Frequency:</b>	When required
<b>Equipment required:</b>	Dependant on nature of damage
<b>Comment:</b>	Physical damage should be repaired as soon as possible after it occurs.

## **RESTORATION, RECONSTRUCTION AND ADAPTATION**

### **Safety and Health**

A Safety and Health Plan should be prepared for each work phase which should include method statements, risk assessments, and Control of Substances Hazardous to Health information should be collated.

### **Restoration work**

It is important to avoid over-restoration and especially important to ensure that historic fabric is not lost or irreparably damaged. A five-year strategic plan and detailed annual work programmes should be prepared for ratification by the Management Group.

The strategic plan should be based on sound guiding principles and methodology, specified and executed by suitably qualified and skilled experts. Failure to understand and apply these principles, or to use inexperienced tradespersons can cause more damage to a structure than if the monument was left untouched.

While recognising that there is more than one solution to a problem, the following are intended as material guidelines for the remedy of some of the more widespread or urgent defects, and are based on current best practice.

Prior to commencement of any works, comprehensive recording by written description, measured survey and photography should be carried out.

High-quality, temporary, public information boards should be mounted at the work section. These should provide details of the nature of, and reason for, the work being carried out and relevant historical information.

### **Preparation**

#### **Ecology**

Prior to the commencement of any works, a thorough ecological appraisal of the relevant section should be carried out. Work should be programmed to avoid disturbing nesting birds and roosting bats. The use of toxic chemicals should also be avoided.

#### **Equipment**

Heavy machinery must not be used close to the monument and the ground surface should be carefully protected from disturbance by using plastic sheeting and timber boards. The use of chainsaws to remove vegetation must not be permitted

and undergrowth should be cleared by hand, using scythes, slash-hooks or trimmers.

### **Ground Clearance**

Many areas of the Monument are obscured by dense vegetation. As the area around the Monument is a Zone of Archaeological Potential, utmost care must be taken to avoid unnecessary disturbance of the surrounding surfaces. Plants and trees should not be uprooted and under no circumstances should any levelling of the ground take place. Any trees which present an immediate threat to the stability of the structure should be cut down close to the ground surface leaving the roots to decay in situ. Chemical means of accelerating the rotting process should be utilised with extreme caution, as chemicals may cause damage to the monument. **Removal of loose stones should only take place under archaeological supervision and following strict recording procedures.** Loose stones should be recorded in their exact location on a site plan and correspondingly numbered in water-based paint before being moved for safe keeping. Carved and worked stones are particularly valuable and should be carefully protected.

### **Vegetation**

The Monument hosts a mixture of small non-damaging flowering plants and dense woody vegetation with damaging and deeply invasive root systems. Ivy, which is present in various locations throughout the Monument, has a root system which draws moisture from the lime mortar of joints and rubble core, causing it to disintegrate and allowing water to penetrate open joints. Growing ivy stems can displace areas of masonry and will ultimately result in collapse of the structure.

Removal of dense vegetation should be completed well in advance of any repair schemes. Ivy must never be removed while alive and should be killed by removing a 300mm section of the main stem about 600mm from the ground, taking care not to damage masonry. Dead stems can be easily removed by hand and, while the removal of deeper roots will inevitably cause some disruption to masonry, a methodological approach should ensure that stones can be replaced in their original position.

### **Shoring**

Parts of the Monument, particularly within Zone 4, are unstable, and a variety of temporary shoring mechanisms is in use. Repairs to these parts of the Monument are to be addressed as a matter of urgency with the advice of a suitably experienced structural engineer.

## **Remedial Works**

Remedial works should be only carried out when the structure is adversely affected, and never for purely cosmetic reasons.

The works should always respect the integrity of the original form and materials and the way in which they were used. The individual character and historic integrity of a monument are maintained by using materials as similar as possible to those being replaced.

### **Lime**

Lime should be the principal material of all mortars used in historic masonry. The damage caused to historic structures by the use of cement based mortars is well documented. It is an extremely hard and inflexible material and is impervious to moisture, resulting in accelerated deterioration of masonry.

The preparation and application of lime requires specific skills and only tradespersons who have been suitably trained should be used. Lime mortar requires at least three months to cure and is initially prone to frost damage, so it is recommended that any works be programmed to take place between April and August and that walls be protected with damp sacking and plastic sheeting at the end of each days work. In excessively windy or hot conditions the structure may need to be sprayed with a fine mist of clean water. Conditions must be moist, but not wet.

The suitability of hydraulic limes is still open to debate and it must be noted that their indiscriminate use has the potential to cause as much damage as cement. Pozzolanic additives such as brick dust may be a used when mortar is required for repairs deep within the wall.

### **Repointing**

The preferable course of action is to remove all cementitious material and re-point with lime mortar. However, because cement mortar is so hard, removal may cause more damage to the surrounding masonry than if it were left. A small trial in an unobtrusive location should be undertaken to determine the best course of action. Power tools are never to be used.

Original mortar should be left in place if it is still performing well and raking out should be selective. Care must be taken not to fill voids, such as mortices, contained within the structure, which can provide valuable archaeological information. Carefully annotated drawings should be prepared for the

contractor, detailing voids which are to be filled, and those which are to be preserved.

The selection of appropriate materials, in particular, building stone and mortar mixes (including batching recipes and aggregate choice) should be thoroughly researched. Detailed specifications and schedules of work should be prepared and accurate, detailed, as-built records maintained throughout the implementation period.

### **Consolidation**

In areas where the corework has become unstable, grouting can be carried out effectively by hand by a method of pouring liquid grout into the centre of the wall through masonry joints. The use of mechanical pressure-grouting systems should be avoided and used only following specialist advice.

Any taking down and rebuilding of stonework is to be undertaken only when all other solutions have been discounted. Any area to be dismantled should be carefully measured, photographed and recorded in advance. Any original coursing or pinning patterns should be replicated as closely as possible during rebuilding.

### **Replacement stones**

No stones are to be removed or replaced except on the advice of a suitably qualified professional. Any new stone must be geologically compatible, preferably from a local source, of a similar texture, colour and size as the original before weathering. This is correct conservation practice, and enables the new stone to be clearly visible within the historic structure.

### **Wall cappings**

Wall cappings are missing in several locations throughout the Monument, and several have been replaced with inappropriate cementitious material, which is prone to cracking. Exposed corework is particularly vulnerable to weathering and water ingress, resulting in the washing out of mortar and encouraging plant growth.

The profile of the corework must be retained as found, but rounded off so that water can be shed from the surface. Hydraulic lime mortar is considered a suitable material to consolidate wall tops due to its advanced setting qualities.

Upon the completion of each work section, a comprehensive record should be prepared and deposited in the Cashel City Walls archive.

## Summary

Guidelines may be summarised as follows:

*(abstracted from The Conservation of Scheduled Masonry Monuments (Department of the Environment NI, Environment and Heritage Service))*

### DO:

- Seek guidance and training on the correct use of lime-based mortars for building and pointing.
- Ensure that all people on site are adequately trained and skilled in this type of work.
- Equip workers with appropriate tools especially a variety of pointing keys.
- Work with lime mortars only from April through to late summer to give new mortar at least three months protection from frost.
- Order lime putty and pre-prepared mortar mixes in good time. Lime putty should be a **minimum of three months old**.
- Locate site huts, equipment stores and dumps well away from the monument, outside the scheduled area.
- Use only hand tools to clear the site and to work on the monument.
- Erect scaffolding by passing bracing members only through existing openings.
- Report the finding of any carved or worked stones, wood, metal, pottery, bone or painted surfaces on the site to the supervising officer.
- Follow the specification for the preparation of mortar mixes and provide samples for approval.
- Report any unusual features (eg ledges, openings, carved or worked stones, preserved timbers) uncovered during the course of the work which are not already noted on the drawings.
- Keep the site tidy and remove all rubbish and building debris.
- Follow the instructions for aftercare and protect new lime mortar by covering it against wet weather or strong sunshine.

### DO NOT

- Use or drive any heavy machinery within the scheduled area.
- Dig any holes or otherwise breach the ground surface within the scheduled area.
- Demolish or take down any masonry without instruction.
- Use power tools to cut or rake out joints on the monument.
- Take out old, sound mortar or remove old plaster or limewash.
- Modify the specified mortar mixes by adding cement or other additive without instruction.

- Add water to lime mortar; it will regain plasticity after ‘knocking-up’.
- Use a trowel for pointing; use a pointing key or jointing bar to press the mortar into the joint.
- Take short-cuts or try to work too fast; always remember that lime takes time to harden.

### **Reconstruction**

Reconstruction is required after accidental or deliberate demolition. As noted above, it is important that, immediately after the occurrence, a comprehensive photographic record is prepared of the undisturbed rubble. If possible, the location of components should be identified before materials are removed to a safe storage location where they are clearly identified. Reconstruction should take place as soon as possible and care should be taken, in as far as is possible, to ensure that all components are placed in their original positions. Where original components are missing, a decision should be taken as to whether to match as closely as possible the surrounding work, or to clearly identify the new insertion by using different material.

### **Adaptation**

- Design of new interventions
- Approval process
- Fixing and mounting of signs on the walls
- List of permitted signs
- Specification of mounting systems

Many surface finishes around the Monument are less than satisfactory from either a visual or practical viewpoint. This is especially the case where macadam, concrete and concrete-based paving materials have been used. The use of natural materials such as stone, cobbles and fired-clay products is not only more satisfactory from a visual point of view but also environmentally sustainable and cost effective in life-cycle analysis terms.

Existing street furniture around the Monument including waste bins, seats, bollards, street lamps and pedestrian restraint barriers is of an ad hoc nature, sometimes poorly designed and, frequently, not fit-for-purpose. The use of ‘heritage’ street furniture is to be decried while good quality design should be sought and consistently applied.

All interventions must, of course, comply fully with the statutory regulations pertaining to archaeology. Notwithstanding, it is stressed that any proposed disruption of surfaces on the walls, or within five metres of them, should be carried out in such a manner that any loss of archaeological significance is minimised and that any opportunities for learning

more about the nature and extent of uses of the particular site are not lost.

### **Conjectural restoration**

It is unlikely that conjectural restoration would ever be appropriate. If, for any reason, it is proposed, the matter should be fully discussed by the Management Group and the relevant statutory organisation.

## **SECURITY**

- Temporary screens
- Closed circuit television
- Lighting
- Patrolling

## **INTERPRETATION, SIGNAGE AND ACCESS**

### **Introduction**

Good interpretation is the key to successful understanding. Physical interpretation is subject to weathering, vandalism and inadvertent mechanical damage. It therefore needs to be of robust construction while being visually appealing and appropriate to its setting.

- Interpretive panels
- Wall guides
- Printed material

### **Signage**

Signage around the Monument is less than satisfactory. Signs are necessary for direction for motorists, cyclists and pedestrians; for prohibition and for information. A preliminary review of the existing signage provision suggests that there are too many signs, resulting in clutter, and that there is poor maintenance, duplication, a lack of consistency, inaccurate information, inappropriate mounting and poor design.

### **Access**

Many parts of the Monument are not readily accessible for people with physical disability. The potential for enhanced access exists at the Cashel Palace Hotel and St. John's Church of Ireland Cathedral.

## **EVENTS**

### **Introduction**

Events based on or around the monument will be encouraged. It is however of vital importance that all events are well organised in order to minimise inconvenience to residents and to maximise the enjoyment of the participants. An 'Event Management Plan' will be required for each event. This will be prepared by the event organiser and will be lodged with the Management Group not less than 56 days in advance of the event. The Plan should consider the proposed event in a holistic way and should address issues such as:

- Time limitations
- Purpose
- Proposed methods of promotion
- Impact on residents and businesses not directly involved in the event
- Crowd control
- Capacity calculation
- Traffic management
- Management and personnel
- Temporary services required (electricity and water)
- Alcohol policy
- Insurance
- Cleaning up methodology
- Minimising physical damage to the Monument
- Disaster planning.

## Chapter Four

# PRIORITIES FOR FUTURE ACTION

### CREATING A LINKED PEDESTRIAN WALLS WALKING ROUTE

#### Introduction

The potential exists for creation of a guided wall walk, perhaps starting from the Cashel Palace Hotel or Dominic Street in Zone 3 and terminating at St John's Church of Ireland Cathedral in Zone 5. A detailed study to plan the exact route would be required before an estimate of cost could be established. However, the following considerations are pertinent:

#### Controlled access

Negotiation with the owners or managers of the following properties should be entered into in order to agree controlled access:

- Folk Museum at junction of Chapel Lane and Dominic Street
- The southern boundary of the livestock market on Camus Road
- The western boundary of the telephone exchange and courthouse grounds leading to Hogan Square
- A route through the grounds of Indaville
- A route through the hospital grounds
- St John's Church of Ireland grounds and graveyard

#### Elements comprising a walk

- Paths - Good quality paving surfaces such as bonded gravel, stone slabs or setts.
- Trees and fencing - Selective tree planting and associated field fencing in locations such as the hotel grounds, cattle market, Indaville and St John's Cathedral would serve to separate the walk from other use patterns.
- Furniture - A carefully specified suite of furniture including seats, litter bins, dog fouling bins.
- Way-marking - Carefully designed way marking direction posts.
- Lighting - Contemporary street lighting to enhance the enjoyment of the walk and extend usable hours.

- Interpretation - A selection of well-designed interpretation panels positioned at strategic locations along the walk with high quality graphics and written content. Associated published material and digital technology.

## **POTENTIAL FOR COMPLEMENTARY DEVELOPMENT**

### **Introduction**

While not intrinsically part of the Monument, some areas and places associated with it offer considerable potential for enhancement and upgrading.

### **Folk Museum**

There exists the possibility of commencing the wall walk at or near to the museum. This would have the added benefit of increasing visitor numbers to the museum.

### **Bishop's Palace Hotel and the Rock of Cashel**

Improved access to the town walls in the hotel grounds creates the potential for greater use of the hotel's catering facilities and for development of the Bishop's Walk linking the Palace to the Rock.

### **John Street, St John's Church of Ireland and the Bolton Library**

This is one of the more visually satisfying areas in the town and, despite its present rather shabby appearance could be re-vitalised by streetscape improvements, restoration of property facades and development of the cathedral and library to celebrate the unique collection that is the Bolton Library. The shaded avenues around the south-east and north-east sides of the graveyard are a particularly pleasing part of the walls.

## **RESTORATION AND REPAIR RECOMMENDATIONS ON A ZONE-BY-ZONE BASIS**

### **Introduction**

The following cost estimates have been prepared on a zone-by-zone basis to give an indication of probable expenditure within set time periods. The figures do not take account of:

- Preliminaries
- Value Added Tax
- Professional fees
- Inflation
- Phasing as this cannot be predicted at the time of writing.

### Definitions

- Within one year - This is work which should be carried out as soon as possible in order to avoid rapid deterioration of the upstanding remains.
- Within five years - This is work which should form the basis of conservation and possible restoration of the upstanding remains. The work should, ideally, be carried out in a number of rolling phases.
- When funding permits - This is work which is unlikely to provide any immediate benefit in terms of appreciation of the upstanding remains. It nevertheless would represent good practice and would open up potential for further enjoyment and understanding of the walls.

### Cost summary

	Within one year	Within five years	When funding permits
<b>TOTAL FOR ZONE 1</b>	<b>€48,000</b>	<b>€4,000</b>	<b>€40,000</b>
<b>TOTAL FOR ZONE 2</b>	<b>€15,000</b>	<b>€29,500</b>	<b>€31,000</b>
<b>TOTAL FOR ZONE 3</b>	<b>€107,000</b>	<b>€219,000</b>	€
<b>TOTAL FOR ZONE 4</b>	<b>€82,000</b>	<b>€346,000</b>	€
<b>TOTAL FOR ZONE 5</b>	<b>€118,000</b>	<b>€135,000</b>	<b>€60,000</b>
<b>TOTAL</b>	<b>€370,000</b>	<b>€733,500</b>	<b>€131,000</b>

### Cost breakdown on a Zone-by-Zone basis

<b>ZONE 1</b>			
<b>Expenditure</b>	<b>Within one year</b>	<b>Within five years</b>	<b>When funding permits</b>
<b>Section A</b>			
Removal of vegetation overgrowth	€10,000	€	€
Removal of rendered surfaces	€	€4,000	€
Storage of loose stones	€1,000	€	€
Consolidation of masonry	€8,000	€	€
Repointing	€15,000	€	€
Structural repair	€5,000	€	€
Removal of abutting structures	€	€	€40,000
Preparation of digital and measured survey	€8,000	€	€
Archaeological investigation	€1,000	€	€
<b>Total for Section A</b>	<b>€48,000</b>	<b>€4,000</b>	<b>€40,000</b>
<b>TOTALS FOR ZONE 1</b>	<b>€48,000</b>	<b>€4,000</b>	<b>€40,000</b>

<b>ZONE 2</b>			
<b>Expenditure</b>	<b>Within one year</b>	<b>Within five years</b>	<b>When funding permits</b>
<b>Section B</b>			
Removal of vegetation overgrowth	€5,000	€	€
Removal of rendered surfaces	€	€	€6,000
Storage of loose stones	€	€	€
Consolidation of masonry	€	€8,000	€
Repointing	€	€10,000	€
Structural repair	€	€5,000	€
Removal of abutting structures	€	€	€25,000
Preparation of digital and measured survey	€8,000	€	€
Archaeological investigation	€2,000	€	€
<b>Total for Section B</b>	<b>€15,000</b>	<b>€23,000</b>	<b>€31,000</b>
<b>Section C</b>			
Removal of vegetation overgrowth	€	€1,000	€
Removal of rendered surfaces	€	€500	€
Storage of loose stones	€	€	€
Consolidation of masonry	€	€2,000	€
Repointing	€	€1,500	€
Structural repair	€	€	€
Removal of abutting structures	€	€1,000	€
Preparation of digital and measured survey	€	€500	€
Archaeological investigation	€	€	€
<b>Total for Section C</b>	<b>€</b>	<b>€6,500</b>	<b>€</b>
<b>TOTALS FOR ZONE 2</b>	<b>€15,000</b>	<b>€29,500</b>	<b>€31,000</b>

<b>ZONE 3</b>			
<b>Expenditure</b>	<b>Within one year</b>	<b>Within five years</b>	<b>When funding permits</b>
<b>Section D</b>			
Removal of vegetation overgrowth	€10,000	€	€
Removal of rendered surfaces	€	€4,000	€
Storage of loose stones	€6,000	€	€
Consolidation of masonry	€	€8,000	€
Repointing	€	€40,000	€
Structural repair	€	€10,000	€
Removal of abutting structures	€	€5,000	€
Preparation of digital and measured survey	€13,000	€	€
Archaeological investigation	€4,000	€	€
<b>Total for Section D</b>	<b>€33,000</b>	<b>€67,000</b>	<b>€</b>

<b>Section E</b>			
Removal of vegetation overgrowth	€10,000	€	€
Removal of rendered surfaces	€10,000	€	€
Storage of loose stones	€	€	€
Consolidation of masonry	€	€15,000	€
Repointing	€	€25,000	€
Structural repair	€	€10,000	€
Removal of abutting structures	€	€	€
Preparation of digital and measured survey	€12,000	€	€
Archaeological investigation	€4,000	€	€
Work to abutting structures	€	€25,000	
<b>Total for Section E</b>	<b>€36,000</b>	<b>€75,000</b>	<b>€</b>
<b>Section F</b>			
Removal of vegetation overgrowth	€10,000	€	€
Removal of rendered surfaces	€10,000	€	€
Storage of loose stones	€	€	€
Consolidation of masonry	€	€20,000	€
Repointing	€	€40,000	€
Structural repair	€	€8,000	€
Removal of abutting structures	€	€9,000	€
Preparation of digital and measured survey	€14,000	€	€
Archaeological investigation	€4,000	€	€
<b>Total for Section F</b>	<b>€38,000</b>	<b>€77,000</b>	<b>€</b>
<b>TOTALS FOR ZONE 3</b>	<b>€107,000</b>	<b>€219,000</b>	<b>€</b>

<b>ZONE 4</b>			
<b>Expenditure</b>	<b>Within one year</b>	<b>Within five years</b>	<b>When funding permits</b>
<b>Section G</b>			
Removal of vegetation overgrowth	€	€	€
Removal of rendered surfaces	€	€	€
Storage of loose stones	€	€	€
Consolidation of masonry	€	€	€
Repointing	€	€	€
Structural repair	€	€	€
Removal of abutting structures	€2,000	€	€
Preparation of digital and measured survey	€2,000	€	€
Archaeological investigation	€	€	€
<b>Total for Section G</b>	<b>€4,000</b>	<b>€</b>	<b>€</b>
<b>Section H</b>			
Removal of vegetation overgrowth	€4,000	€	€
Removal of rendered surfaces	€	€	€

Storage of loose stones	€	€	€
Consolidation of masonry	€	€	€
Repointing	€	€25,000	€
Structural repair	€	€	€
Removal of abutting structures	€	€	€
Preparation of digital and measured survey	€4,000	€	€
Archaeological investigation	€	€	€
<b>Total for Section H</b>	<b>€8,000</b>	<b>€25,000</b>	<b>€</b>
<b>Section I</b>			
Removal of vegetation overgrowth	€25,000	€	€
Removal of rendered surfaces	€	€20,000	€
Storage of loose stones	€	€1,000	€
Consolidation of masonry	€	€50,000	€
Repointing	€	€120,000	€
Structural repair	€	€80,000	€
Removal of abutting structures	€	€50,000	€
Preparation of digital and measured survey	€30,000	€	€
Archaeological investigation	€15,000	€	€
<b>Total for Section I</b>	<b>€70,000</b>	<b>€321,000</b>	<b>€</b>
<b>TOTALS FOR ZONE 4</b>	<b>€82,000</b>	<b>€346,000</b>	<b>€</b>

<b>ZONE 5</b>			
<b>Expenditure</b>	<b>Within one year</b>	<b>Within five years</b>	<b>When funding permits</b>
<b>Section J</b>			
Removal of vegetation overgrowth	€8,000	€	€
Removal of rendered surfaces	€	€	€
Storage of loose stones	€4,000	€	€
Consolidation of masonry	€10,000	€	€
Repointing	€	€60,000	€
Structural repair	€50,000	€	€
Removal of abutting structures	€	€	€
Preparation of digital and measured survey	€15,000	€	€
Archaeological investigation	€4,000	€	€
Conservation of sculptural elements	€	€25,000	€
<b>Total for Section J</b>	<b>€91,000</b>	<b>€85,000</b>	<b>€</b>
<b>Section K</b>			
Removal of vegetation overgrowth	€2,000	€	€
Removal of rendered surfaces	€	€	€
Storage of loose stones	€3,000	€	€
Consolidation of masonry	€15,000	€	€
Repointing	€	€25,000	€
Structural repair	€	€25,000	€

Removal of abutting structures	€	€	€60,000
Preparation of digital and measured survey	€6,000	€	€
Archaeological investigation	€1,000	€	€
<b>Total for Section K</b>	<b>€27,000</b>	<b>€50,000</b>	<b>€60,000</b>
<b>TOTALS FOR ZONE 5</b>	<b>€118,000</b>	<b>€135,000</b>	<b>€60,000</b>

Appendix Two  
**ECOLOGY REPORT**

# Appendix Two

## ECOLOGY REPORT

### INTRODUCTION

Paul Murphy of EirEco Environmental Consultants was contracted by Alastair Coey Architects to undertake an ecological appraisal of the City Walls of Cashel, Co. Tipperary. The primary aim of the study was to assess the potential for sensitive ecological receptors associated with the walls which may have a bearing on the capacity to undertake structural maintenance works. Old stonewalls often support specific assemblages of plants (known as murals). The environmental conditions prevailing on a wall vary with factors such as aspect, shade, and depth of mortar or accumulation of soil. The plants present will therefore have to be adapted to the extreme conditions varying between semi-arid, almost alpine conditions to damp and shaded nooks. In addition, cavities in, or heavy vegetation cover on walls are frequently used as bat roosts or nesting sites for breeding birds.

Remnants of the city walls of Cashel occur in lengths varying from approximately 10m to over 100m. The condition of the different sections varies considerably, as does the amount of vegetative cover on and adjacent to the wall. There are, in addition to the city wall, several other large stonewalls of considerable antiquity throughout the town of Cashel, and many of these are of equal potential ecological value as the original 12<sup>th</sup> Century city walls. The city walls of Cashel were surveyed on the 21<sup>st</sup> August with Alastair Coey, Adrian Curran and Jason Donaldson of Alastair Coey Architects.

### RESULTS

The overall potential of the city walls to support sensitive ecological receptors is discussed under the following sections dealing with plants, birds and bats. No species of particular conservation concern were noted on or associated with the walls during the survey and there are no records of rare or protected species of plant or animal from the town of Cashel in the National Parks and Wildlife Service website database.

## Plants

The plant communities present on the city walls vary according to a number of factors including aspect, condition, and maintenance.

Overall, the walls support an assemblage of typical mural species dominated by pellitory-of-the-wall (*Parietaria officinalis*), red-valerian (*Centranthus rubra*), ivy-leaved toadflax (*Cymbalaria muralis*), common polypody (*Polypodium vulgare*), fescue (*Festuca rubra*) and ivy (*Hedra helix*). Other classical mural species present, though often with a more localized distribution, include rusty-backed fern (*Ceterach officinarum*), wall-rue (*Asplenium ruta-muraria*), stonecrop (*Sedum acre*), herb Robert (*Geranium robertianum*), cranes-bill (*Geranium* sp.), wild lettuce (*Lactuca muralis*) and pennywort (*Umbilicus rupestris*). A number of introduced species also frequently occur on the walls such as wall-flower (*Cheiranthus cheiri*), cotoneaster (*Cotoneaster simonsii*) and lilac (*Syringa officinalis*).

As the city wall is typically a metre or more in width, there is often a dense thicket of vegetation on the top of the wall that often forms a canopy of 2 or more metres above the wall height. This is most frequently dominated by ivy, some of which is rooted on the ground, but some of which appears to be rooted on the wall top. In such instances, the accumulation of leaf litter and debris has enabled a dense growth of vegetation which includes species not typically associated with walls such as bramble (*Rubus fruticosus* aggr.), willow herb (*Epilobium* spp.), ragwort (*Senecio jacobea*), nettle (*Urtica dioica*), cocksfoot grass (*Dactylis glomerata*) and in some areas establishing young trees of ash (*Fraxinus excelsior*) and sycamore (*Acer pseudoplatanus*).

The root systems of such dense vegetation can in many instances be seen to have resulted in cracking and splitting of the wall. On the one hand, the root systems prise and lever apart the mortar and masonry, while on the other hand the root systems then bind the crumbling mass and prevent it from collapse. The penetration of root systems into the wall would necessitate considerable re-building if an attempt was made to remove the capping vegetation, as decaying roots within the wall will overtime, lose their binding capacity and result in extensive cavities and voids within the wall.

In addition to the abundant higher plants evident on the city walls, mosses and lichens also occur with their distribution and abundance governed by similar environmental parameters. This study did not include a detailed assessment of the lichen and bryophyte flora, though the diversity of species present

appears limited by both the air quality of the urban environment and the often dense and competitive growth of higher plants.

### **Birds**

The city walls of Cashel offer good nesting opportunities for a range of passerine bird species that use either the cavities within the walls or the cover of the associated vegetation. A number of the common species typical of urban environments nest in cavities including various tit species (great, blue and coal-tit), wren, robin, pied wagtail and starling. Other less widespread species such as spotted flycatcher and tree-creeper will also utilize cavities as nest sites. The dense vegetation forming thickets on some sections of the wall could support nests of a much wider range of species including corvids (the crow family), a range of other passerines and possibly raptors such as sparrowhawk or kestrel. Utilisation of the city walls for breeding purposes is likely to be confined to the period from March to July inclusive. Birds may also however, use the dense vegetation or the cavities in the wall for roosting purposes during the winter months. Species such as wrens will roost communally in old nest sites as a strategy to keeping warm during cold winter nights.

### **Bats**

Bats utilize different roost sites at various times of the year. During the winter, bats occupy roosts that provide stable temperature and humidity suitable for undergoing torpor or hibernation (often old buildings, caves, mines and cellars). In the late spring they move into summer roosts (roof spaces, trees, walls etc) which may include specific maternity roosts for females to give birth in, and other roosts used by males or non-breeding animals. These later roosts may be used on a transitory basis dependant on foraging potential in the area. Sections of the city walls of Cashel offer abundant roosting potential for bats during the summer period in cavities and also within the dense mats of ivy. The walls are unlikely to provide the stable environment required for winter roosting sites or conditions suitable for use as maternity roosts. Bat utilization of the walls for roosting purposes is likely to be limited to the period April to October inclusive.

## **CONCLUSIONS AND RECOMMENDATIONS**

1. There are no protected or rare species of plant or animal recorded or associated with the city walls of Cashel. The assemblage of plants occurring on the city walls is generally typical of old masonry walls, though includes a mixture of

weedy and scrub species in some places due to the considerable width of the wall. Many of the plants present on the wall faces are classical mural species whose distribution is limited by the availability of walls or similar habitats. Their presence on walls provides a particular ecological niche as well as providing an intrinsic element of the character of old walls. These typical and generally innocuous species should be retained where possible.

**2.** The denser vegetation occurring on top of wide sections of the wall (often those with wall-walks) is comprised of various woody species such as ivy, ash, sycamore or lilac with other weedy herbaceous species such as bramble, ragwort, nettle and various coarse grasses. The extensive root systems of the woody plants are likely to result in the slow prising apart of the masonry and mortar and in the interest of the conservation of the remaining city walls, their removal or control will be required.

**3.** The various cavities within the city walls along with the denser areas of associated vegetation provide abundant potential nest sites for a considerable range of bird species. The nests and young of all wild birds (with the exception of a very limited number of pest species) are afforded protection under the Wildlife (Amendment) Act (2000) and it is an offence to cut, grub, burn or otherwise destroy vegetation growing on land not then cultivated (including hedgerows) between the 1<sup>st</sup> day of March and the 31<sup>st</sup> of July in order to afford protection to birds nest and their young. Maintenance works on the walls which would involve cutting back of vegetation, filling cavities, re-pointing, etc, should be undertaken outside of the breeding bird season.

**4.** The city walls of Cashel also provide potential roosting sites for a variety of bat species which may utilize either cavities in the wall or the dense areas of vegetation. All bat species are afforded protection under Annex IV of the EU Habitats Directive which provides for the protection of their habitat and in particular roosting sites. As the walls do not provide suitable conditions for winter hibernation sites, it would be appropriate to confine any vegetation clearance of maintenance of the walls (including pointing) to the period during which bats are primarily dormant ie. November to March inclusive.

**5.** Any maintenance works undertaken on the city walls of Cashel during the period when the walls may be utilized for nesting or roosting purposes by birds or bats respectively, should be preceded by an inspection of the relative section of

the wall by an appropriately qualified or experienced ecologist to ensure no nests or roosts are present.

Appendix Three  
**ARCHAEOLOGY REPORT**

# Appendix Three

## ARCHAEOLOGY REPORT

### INTRODUCTION

This report describes the archaeological issues of the Cashel Town walls Conservation Plan. The historical context of the walls is summarised, and a brief account of archaeological work on the walls is also given. The report is based on the following: Published sources, listed in the bibliography; site visit.

### HISTORICAL BACKGROUND

Cashel, meaning ‘stone fort’, is historically documented as the principal stronghold of the Kings of Munster since 370 AD. This settlement was focussed on the Rock. It was handed over to the church by Muircheartach O’ Brien in 1101, and became a significant ecclesiastical centre. The dynamics altered with the Anglo-Norman invasion. An existing settlement, which evidence suggests was located in the area of Ladyswell Street, was probably considerably expanded by the invaders.

In 1218, the Rock was removed from the archbishop’s control by the Justiciar of Ireland. However, in 1228 the new town of Cashel was returned to the control of Archbishop Maurianus O’ Brien with the agreement of Henry III.

Cashel is a planned Norman town, whose principal features, such as grid-like street layout, with off-set lanes, and a market place, are mirrored in all such Anglo- Norman towns throughout Ireland. Long narrow plots extend from the street front, and the continuity of many of these from probably the high medieval period, is still evident in Cashel. It has been suggested that the new town had reached the extent delimited by the town wall before c. 1265. Despite its early elevation to borough status (1216-23) Cashel did not receive a murage grant until 1303-7. The town wall was built between 1319-24 (Wyse Jackson 1949).

In 1316, Edward Bruce halted his army and held a parliament at Cashel. Evidence suggests that the town walls were obsolete by the middle of the 17th century- as Wyse Jackson observes, they were probably of little value after the invention of gun powder. In 1647, the ecclesiastic centre on the rock was burnt by

Murrough O' Brien, Earl of Inchiquin, as the garrison had fled there rather than defend the town.

Sources for the history of Cashel are the Corporation records. Despite the wealth of written records for the medieval and later period, the town is very poorly served by cartographers. It is remarkable that there are no extant maps of the bishop's estates. The earliest known map is the Ordnance Survey first edition, 1843. The circuit of the town walls has been plotted by the Ordnance Survey.

### **The Walls**

The circumference of walls is a little over a mile in length, enclosing approx. 28 acres. Only 10 fragmentary lengths are now extant and none of the gates alluded to in the Corporation records survive. The mural tower at the north-west corner remains, and the base of the south-east tower was uncovered in excavation. The Urban Survey (1993) notes with interest that the south-west corner of the town has a disparity between the townland boundary in the Ordnance Survey first edition of 1843 and the current edition.

Max wall thickness 3m. Max height 6.40m over the interior.

### **Dominican Friary**

Founded 1243 by Archbishop David Mac Kelly of Cashel for the Friars Preachers. Greater part rebuilt after 1480. Of limestone.

### **Franciscan Abbey site only.**

Founded c. 1265 by Lord William Hacket for the Conventual Franciscans. Drawn by Grose in 1791. Print in the GPA library.

Cashel Corporation records between 1673 and 1773 are particularly informative.

At least 5 gates- Moor or Lady's Gate  
Canopy, Upper or Dublin Gate  
St Johns and Friar Gate  
West , Lower or St Nicholas Gate.

References in Thomas.

### **Cashel Palace**

Church of St John the Baptist. Date of construction unknown. Mentioned as far back as 1291 (cited by Seymour). 1463 Calendar of Ormond Deeds. Mention of St John's St in 1434.

## THE CIRCUIT

The following description attempts to encompass documentary references and information from archaeological excavation. Some detail, known formerly (eg. Wyse Jackson 1949) is no longer extant or is obscured.

### A

Part of the southern section lies beneath the library, and was excavated in 1998. The standing stretch at the northern end here has a substantial lower exterior batter, and is composed of randomly laid limestones. The upper courses are built up with larger more regular stonework, and it is broken by the gable of a building. There is a section of cement and brick infill, also areas of lime mortar.

The brick quoins of a former building on the second edition of the OS map are apparent.

The cottages on Catherine's Lane, within the walls, use the town wall as the rear wall of the buildings. This use of the wall in later buildings is evident north of Catherine's Lane where it is punctured by infilled opes, and built up as gables, with the intervening areas later infilled.

The exterior of a thick-walled building off Bank Lane/ Canopy Place has a large limestone mortared arch of probable late medieval date evident in the outer face. The façade shows a series of builds of opes, of which the limestone arch is earliest. The walls of the low two storey building are a minimum of 900mm thick, and are of rendered limestone. The height of the arch suggests a gate.

### B

Canopy (Conofoy's) Gate is mentioned in the Corporation records until 1732. Of interest here are the mentions of a 17th century fortification outside the wall.

A section of the external face of the wall at Canopy Street has three small opes, probably associated with a former building on the outside of the wall here. A single stone corbel projects from the outside of the wall. There are up to three differing builds evident in this wall section, including the scar of a gable, and a chimney stack.

The differing ground level from south to north is apparent as one enters the environs of the Dominican friary.

**C**

The section of walling standing along the boundary with the Dominican friary has a section of possible wall-walk. A stone building punctured the wall in this location, and the walls, where they abut the medieval fabric, have been left in situ.

The line of the town wall takes an abrupt southern line, to avoid the precinct of the friary, founded in 1243AD. Excavations in this area over the line of the wall have shown that there was an external ditch extending parallel to the wall.

The open nature and proximity of the apartment development to the Dominican friary detracts enormously from the medieval building. The view from the standing wall section is broken with lamp standards, and parking signs.

**D**

The main gate between the Rock and the town, the Moor Gate, was located at Dominic Street. The wall where it forms the garden boundary of the former Bishop's Palace is heavily overgrown with ivy. A slight batter to the base is evident. Here it is composed of regular coursed stonework, which is quite open. Pockets of lime mortar, possibly even render, are evident. Wyse Jackson notes the presence of a parapet here- now too overgrown to see.

Mature trees are located close to the line of the wall and present a problem at root level. Modern intervention in the structure is unsympathetic, with a plaque fixing, an alcove with Liscannor flags, and a cement soffit. Is this a sallyport?

The field walls external to the town are exceptionally fine. While a Sheila na Gig is recorded in the wall of the boiler house of the Cashel Palace hotel, part of an armorial plaque with fleur de lis is casually incorporated into the upper section of a field wall.

**E-F**

The most authentic section of the town walls lies at the north-west corner of the town. This is also perhaps the most vulnerable, being composed on the interior and exterior, of large open tracts which could be subject to redevelopment.

A fine section of walling stands to the north of the public carpark. This was probably the walled garden of the Bishop's Palace, and a series of bee boles are placed along the west facing garden wall. A large flat-headed ope with brick facing and infilled with limestone blockage in this section of the town wall would date from the period of the Bishop's Palace, relating to the garden.

A rectangular building on the outside of the wall is of considerable interest. It is a two storey stone building with an undercroft, whose plank centered lime mortared arch springs off the exterior of the town wall. The original entrance to the undercroft is replaced by a brick-headed arch, which is latterly partly infilled. The east end of the building appears to have been shortened, as the barrel vault continues beyond the wall of the building. The masonry of the east wall is clearly built up against the 'town wall'.

It appears possible that the building was originally accessed also at ground floor level from within the town. The opes at first floor level are later, and partly brick dressed. Several large dressed limestones with rebate are present on the interior of the building.

A sallyport, remains relatively unaltered, although now blocked with limestone masonry lies immediately west of this building. The arch is composed of well dressed limestones. Plank centering is evident in the soffit of the arch. The following is extracted from the Urban Survey (1993) 'The Sally Port or postern gate is the only surviving gate feature of the entire town wall. This is a 2-period split level rounded headed arched passage 3.10m deep, 2.25m in width, and 2m in height on its internal face. The inner and outer arches of the postern are faced with cut wedge shaped limestone voussoirs. The soffit of the lower inner arch bears impressions of plank centering (indicating an early date) while the slightly higher outer arch soffit reveals remains of wicker work centering of the later medieval period'.

The sole extant tower on the wall circuit remains on the north-west corner. It is heavily overgrown, and more apparent from the exterior. A fieldwall, which forms the boundary of a modern housing development, abuts the exterior of the tower. Part of the tower forms the rear garden wall of a house on Connors Close. The closing off of this important mural feature and proximity of modern housing is a missed opportunity. On the inside of the wall, detail of the tower is totally obscured by foliage.

## **F**

This section of walling is most impressive when viewed from Connors Close. The basal batter is marked in this section, and the impressive height of the structure is accentuated by the sloping ground. The upper section of walling here has been rebuilt. There is red brick in the lower courses where the wall has been broken through or patched.

Excavation here showed that there was no ditch outside the town wall, and that the wall was partly built in a foundation trench. There were no remaining archaeological deposits in this area. The modern ground level within the walls on this section is considerably higher than the exterior. This is due partly to the rise in ground level moving eastwards, but also may be due to build-up from demolished buildings.

The scars from demolished buildings, including the remains of a lean-to, blocked opes, breaks in the masonry, and flashing inserted into the stonework are apparent along this section of walling.

At the southern part of section F, buildings obscure the wall, although the line of the structure is maintained.

Nothing remains of the Lower, or St Nicholas Gate.

## **G**

Part of this section of wall was visible and stood above ground until the late 1980s. The northern section of the wall here was demolished prior to the arrival of the archaeologist on site. Excavation confirmed that the wall here is medieval in date. An external ditch is present in this area. The wall is encompassed in an apartment complex.

## **H**

There is no trace of the wall above ground level in the garden of the house called Indaville. The small garden structure on the line of the wall at the northern end was probably a fruit storage shed (information from the current owner of the house).

At Indaville, where the wall forms the south west corner of the town, there are no masonry features to indicate access. Cracks and bulging of the masonry are evidence of structural instability.

## **I-J**

Wall walk visible at south- west corner.

This long section of wall exhibits the most serious structural problems. A sallyport 'with Gothic mouldings' was located in the collapsed section of walling, according to Wyse Jackson (1949) although the precise location is unknown. It is likely to have allowed access from William Street through the wall to the outside. The area to the north of the hospital was probably that of a garden, where trees were planted in 1702 'in the most convenient part of the Green, adjacent to the town wall'. In 1704, permission was granted to Alderman Thomas Chardwick 'to make a door through the town wall' into the garden. There is no other apparent break along this section of wall, therefore the breached part is likely to have been that with the sallyport. The

door was supposedly 8ft (2.4m) wide. Archaeological work showed that the wall footings continue across the breach. The face of the wall is currently obscured by shoring, however when archaeological work was carried out here, the excavator noted no other features in the masonry.

Part of the inside of the wall is protected by a ditch, uncovered in excavation. This was not continuous along the line of the wall. No dating evidence for the structure or for the ditch was forthcoming from the archaeological work.

## **K**

John's Gate was located at John Street. The wall here extends southwards to encompass the site and graveyard of the former parish church of St John, now the site of the cathedral. The wall which forms the cathedral precinct appears to have been largely rebuilt. There is a round-headed alcove at the western end, and to either side, effigies, thought to be those of the Hacketts, have been set into the wall. According to Wyse Jackson, these 13th century coffin lids were removed from St Dominic's Abbey in the 18th century.

The presence of a tower is recorded at the south-east corner of the cathedral precinct. In 2002, in excavation at the housing development at Feehan's Road, the 13<sup>th</sup> century town ditch was uncovered on one edge of the site, where it was 3m in width and up to 2.80m in depth. The remains of a 13<sup>th</sup> century corner tower were discovered within the rebuilt line of the town wall, which the excavator dates to 1784, adjacent to the ditch. No finds were recovered.

Inside the wall, a second arch displays a further two effigies. Outside the wall, a petrol station encroaches to within 1.5m of the wall. The gable end of a modern dwelling and satellite dish is highly visible from within the graveyard. A section of the internal face of the wall, where the structure is abutted by a building, has collapsed. Structural instability is apparent here. Archaeological work on the site of the petrol station has indicated that there does not appear to be a ditch on the east side of the Cathedral precinct.

## **L**

There are no extant features of the town defences on this section. A gate, Friar Gate, was located on the street here. Northwards, the wall takes a series of indents, avoiding the site of the Franciscan Abbey, founded c. 1265. No trace of this foundation remains above ground.

## **INVENTORY OF ARCHAEOLOGICAL WORK ON THE WALLS**

### **1988**

#### **44-46 Main St**

A one-day trial excavation, using a mechanical digger, was carried out in the area of the proposed extension to the Mitchelstown Co-op., which was within the walled area of Medieval Cashel. Three small trenches were opened, two adjacent to the town wall which formed the western boundary of the site. Excavation revealed that a thick occupation deposit ran under the wall and may have related to a pre-walled Norman occupation. The northern part of the site had been considerably disturbed, but some deposits, perhaps relating to the construction of the wall, survived in the southern part of the site.

44-46 Main St.

An excavation was carried out on a site at the rear of 44-46 Main Street, Cashel. The premises adjoin the western side of the medieval town wall. The northern portion of this wall, which ran up to the street frontage, was demolished prior to the watching brief.

Two trenches dug by the wall indicated that its foundations were medieval in date. Medieval pottery sherds, principally 13th-4th century in date, was recovered. It consisted mainly of Irish made wares, with a few sherds of Ham Green and Saintonge wares.

#### **96E191**

Testing at Friar Street took place prior to the construction of a petrol filling station. An area measuring 5m<sup>2</sup> was tested in advance of the laying of the tanks. It was only 1.5m to the east of the medieval town wall. The purpose of the test was to establish the presence/absence of a town ditch.

There was no trace of a town ditch outside the medieval wall or of discernible stratified layers in the area tested. Undisturbed sands and boulder clay occurred between 0.7m and 1.2m below the modern ground level

#### **95E0286**

An archaeological assessment was carried out on a large site off Friar Street in advance of construction of the UDC offices.

A ditch was located in Trench 4, 1.2m below rubble fill. It was 4m wide and in deep and was filled with limestone masonry blocks (c. 0.75m x 0.45m) mixed with loose clay and red brick rubble. A thin deposit of organic material which included one shard of medieval pottery lined the base of the ditch. It is possible that the organic fill is primary and that the ditch was recut in the post-medieval period and later filled with demolition rubble, so that most of the fill consists of eighteenth- or

nineteenth-century rubble. Basal batter was evident on the town wall in the trench, where it sloped out for 0.5m. No deposits were uncovered outside the line of the ditch.

### **1997**

Assessment in advance of development at Lower Gate St confirmed the absence of medieval or post-medieval deposits outside the wall. There was no ditch here. The wall extends to a depth of 1.80m below present ground level. A foundation trench for the wall was cut into boulder clay. Medieval pottery was found near the base of the trench.

### **98E0302**

Test trenches were excavated on the site of a proposed new unit north of Our Lady's Hospital. The standing wall here has an average height above ground of 3m. Prior to any work carried out on the site, parts of the inner face had collapsed and the structure was evidently unstable. This section of walling is recorded by Wyse Jackson (1948,24) as having had a sallyport. The breach in the wall had been infilled with modern blocks. Trenching across the modern breach showed that the footing of the wall was continuous, however five large limestones were displaced. This may have happened when the gateway was constructed or when the wall collapsed. No real evidence for the sallyport was recovered. The remainder of the site was archaeologically sterile, excepting a ditch later uncovered (see below).

### **99E0588**

Excavation of the library site off Friar St uncovered the remains of the town wall, built c. 1265. 'The wall was built as two separate walls - constructed of mortar bonded, dressed inner and outer faces, with a fill of small stone and mortar'.the footing of the outer section was 0.40m lower than the inner section, with an external batter. An external ditch was located here, c. 6m in width and 1.40m deep. Medieval pottery was recovered from the fills and deposits up against the wall. The inner face of the wall was built over an earlier infilled ditch, from which medieval pottery and part of a human skeleton were recovered.

By the 17<sup>th</sup> century this section of town wall was overlain by a cobbled surface and the ditch was infilled.

### **98E0302 ext**

The redevelopment of the land to the north of Our Lady's Hospital entailed archaeological work. The modern material filling the existing breach in the wall was removed under supervision. At the eastern end of the site a ditch was uncovered, which lay 5-6m from the town wall, extending roughly parallel

with it. The ditch was 18m in length, with a rounded terminal at each end. It was up to 3.2m in width, and c. 1.1m in depth. No dating material was uncovered. Medieval pits were uncovered over the western part of the site.

No dating evidence for the defences on this site was uncovered.

#### **00E0169 ext**

At 44-46 Main St, part of the foundations of the town wall was uncovered in testing.

#### **00E0312**

Test trenching at Bank Place uncovered the remains of the town wall, where a trench was opened as part of test excavation. Burials related to the Dominican friary, founded 1243AD, were cut by a ditch 2.90m in width and 0.83m in depth, which extended outside and parallel with the town wall. The foundations of a wall uncovered in another trench were up to 1m in width and stood to a max height of 0.68m. These foundations were built on a layer which contained some clay pipe fragments, dating the wall to the 17<sup>th</sup> century at earliest. There appear to be two builds here, an earlier wall related to the ditch, and a later wall which is built on deposits which overlay the ditch.

#### **00E0169**

To the rear of 44-46 Main St, a c. 50m stretch of the town wall stands to a height of c. 0.9m- 5m above ground level. Test trenching outside the wall uncovered deposits of late post-medieval date over subsoil.

### **2002**

#### **02E1802**

Test excavation of the site at Chapel Lane uncovered mortared stonework on the line of the town wall. The site was excavated in 2003.

#### **02E0210**

Testing on a site at Feehan's Road was carried out in advance of housing development. The 13<sup>th</sup> century town ditch was uncovered on one edge of the site, where it was 3m in width and up to 2.80m in depth. The remains of a 13<sup>th</sup> century corner tower were discovered within the rebuilt line of the town wall, dating to 1784, adjacent to the ditch. No finds were recovered.

### **2003**

#### **03E01584**

Archaeological work at Our Lady's Hospital continued, where services were brought through the breach in the wall. A ditch

measuring 5.5m in width and 1-1.6m in depth was discovered outside the wall. No date for the ditch or for the construction of the wall was uncovered. A similar ditch was found on the outside of the wall at 44-46 Main Street.

**00E0169ext**

A wide shallow ditch was uncovered on the outside of the town wall. This measured 5.6m in width and 0.75m deep. No finds were recovered from the fill.

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- Farrelly, J. and Fitzpatrick, E.** 1993. Urban Archaeological Survey Co. Tipperary South Riding Vols 1 and 2.
- Thomas, A.** 2002. The walled towns of Ireland.
- Wyse Jackson, Rev.** 1949. The walls of Cashel. North Munster Antiquarian Journal.



Appendix Four  
**THE BURRA CHARTER**

Appendix Five  
**RECOMMENDED READING  
AND LIST OF SUPPLIERS**

## Further Information and Reading

- Ashurst, J & N; English Heritage Technical Handbook  
VOL.1; *Stone Masonry*, (Gower,  
Aldershot, 1989)
- Ashurst, J & N; English Heritage Technical Handbook  
VOL.3; *Mortars, Plasters and Renders*,  
(Gower, Aldershot, 1989)
- Brereton, C; *The Repair of Historic Buildings: Advice  
on Principles and Methods*; (English  
Heritage, London, 1995)
- McAfee, P; *Stone Buildings*; (O'Brien, Dublin, 1998)
- Pavia, S & Bolton, J *Stone, Brick & Mortar*; (Wordwell, Bray,  
2000)
- Schofield, J; *Lime in Building: A Practical Guide*; 3<sup>rd</sup>  
Ed. (Black Dog Press, 2007)
- Wingate, M; *Small Scale Lime Burning*; (Intermediate  
Technology Publications, London, 1995)
- English Heritage *Directory of Building Limes*; (Donhead,  
1997)
- Historic Scotland *Technical Advice Note 1: Preparation  
and Use of Lime Mortars*, (Historic  
Scotland, Edinburgh, 1995)

## Suppliers of Lime Putty

Lochplace Building Conservation  
The Forge, Inishannon,  
Co. Cork  
Tel: 021 4776677  
<http://www.lochplace.com>

The Traditional Lime Company  
Rath, Shillelough Road,  
Tulow, Co. Carlow  
Tel: 059 9151750  
<http://www.traditionallime.com>

Clogrennane Lime Limited,  
Clogrennane,  
Co. Carlow.  
Tel: 059 9131811  
<http://www.irishlime.com>

Stoneware Studios  
Pillmore, Youghal,  
Co. Cork  
Tel: 024 90117  
<http://www.stonewarestudios.com>