

High Level Masonry Project
Tactile safety inspection of high-level fabric

REPORT
Carsluith Castle
PIC186



October 2022



HISTORIC
ENVIRONMENT
SCOTLAND

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CONTROL SHEET

Document Control

Title:	Tactile safety inspection of high-level fabric Report PIC186 Carsluith Castle
Authors:	

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Versions

Version	Date	Status	Prepared by	Amendments
V0001	20 10 2022	Draft	[REDACTED]	Initial draft
V0100	08 11 2022	Approved	[REDACTED]	

High-Level Tactile Inspection: Report - Introduction



PIC ID # ↓	PIC186	Site name	Carsluith Castle		
Inspection start	27/06/2022	Inspection end	30/06/2022	Submission	DD/MM/YYYY
Lead inspector	[REDACTED]				
Other inspectors	[REDACTED]				

Introduction:

The High-Level Fabric Inspection of Carsluith Castle was lead by [REDACTED] (Lead Inspector) and carried out with Inspectors [REDACTED] and [REDACTED] from 27.06.2022 - 30.06.2022 and 02.08.2022 - 04.08.2022. The HLM Inspection Team assessed 6 zones covering the whole monument exterior, using a range of high level access equipment including rope access, MEWP and ladders. MEWPs were lifted into the gardens using a spider crane while ground mats or alloy tracks below MEWPs protected the ground and archaeologically sensitive areas in particular.

HLF Inspection Risk Matrix:

HES-T1C-HLF-RAS-X-X-V0300-RiskMatrix

Consequence \ Probability		1	2	3	4	5
		No injury	Minor injury	Moderate injury	Major injury	Fatal or life-altering injury
5	Fabric fall almost certain	5	10	15	20	25
4	Fabric fall highly likely	4	8	12	16	20
3	Fabric fall likely	3	6	9	12	15
2	Fabric fall unlikely	2	4	6	8	10
1	Fabric fall highly unlikely	1	2	3	4	5

RISK RATING	RISK SCORE RANGE
High	15 - 25
Medium	10 - 14
Low	1 - 9

Re-inspection frequency: (in years)

[REDACTED]



		Annual Visitor Numbers				
		up to 5 k	5-20 k	20 - 100 k	100k - 2m	over 2 m
Identified Risk Rating	Low	5 years	5 years	5 years	4 years	4 years
	Medium	3 years	3 years	2.5 years	2 years	2 years
	High	1 year	1 year	1 year	1 year	0.5 year

No Annual Visitor Numbers available

Link to 3D model:

Not Available

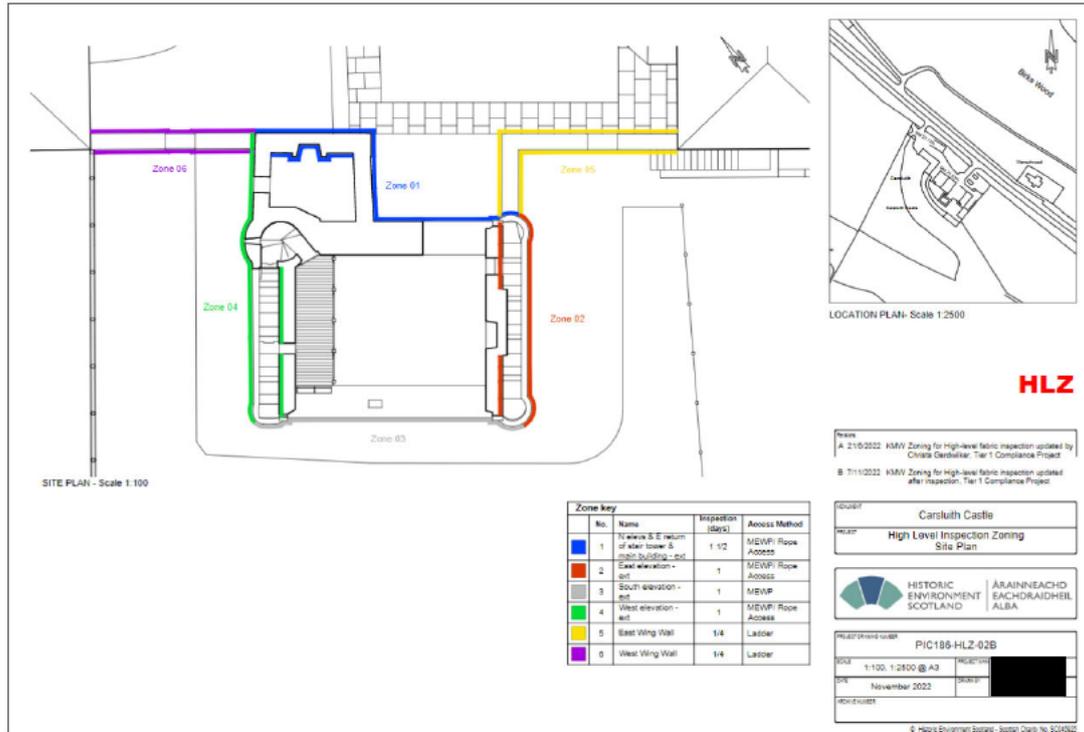
HL Zones:

Zone:	Colour:	Zone Name:
1		N elevs & E Return of stair tower & main building
2		East Elevation - ext
3		South Elevation - ext
4		West Elevation - ext
5		East Wing Wall
6		West Wing Wall

High-Level Tactile Inspection: Report - High-Level Zoning Drawings



Click on link below image to open drawing in PDF viewer:



[PIC186-HLZ-02B](#)

IMAGE

High-Level Tactile Inspection: Report - Summary dashboard



PIC ID#	PIC186	Site name	Carsluith Castle	
Submission	DD/MM/YYYY	Number of zones	5	
Select zone of which data should be displayed ↓	All zones	Number of observations	12	

Identified Risk



Residual Risk

After Inspection Action



Residual Risk

Mitigated with applied Access Restriction in place



Inspection Action:

Class V Report = Fabric detached during tactile inspection	Access Restriction = Risk of fabric falling and causing harm			Monitor Observation / Plan Repairs = No immediate action
	Full site, notifiable	Partial site, notifiable	Partial site, not notifiable	
8	0	0	2	3

Inspection types:	Tactile	12	Visual	0
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Key comments:

KEY FINDINGS

- The castle whinstone exterior masonry is well consolidated, though in dense Stirling Grit mortar the robust stonework of the tower house is in fair condition. Mortar defects found were mainly at wallheads and were remedied by contractor rope access under MCU supervision.



- One first storey window lintel on South Elevation (Zone 3) had a shallow seating 50mm on righthand reveal. Though no movement, lintel has been propped. Note lintel is later insertion original lintel is seated above.

PREDOMINANT RISKS:-

- Though the outer half of all the gable wallheads are skew coped the inner halves of gables' wallhead thickness (that would have originally been under the roof sarking) are Stirling Grit cement screeded rubble. In the exposed location these screeded sections need to be checked bi-annually.

High-Level Tactile Inspection: Report - Access Scope



PIC ID #	PIC186	Site name	Carsluith Castle
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Access methods: Select all methods used to conduction inspection ↓

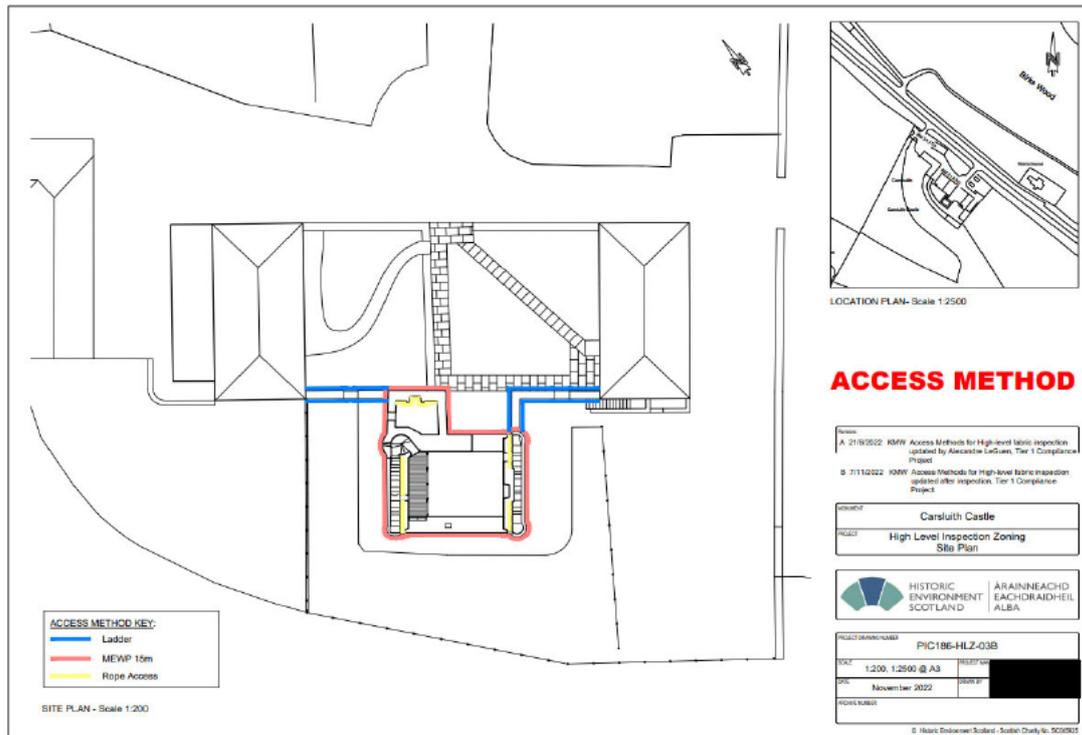
MEWP	Yes	Design Scaffold		Alloy Tower Scaffold	
Rope Access	Yes	Steeplejack	Yes	Ladder	Yes
Ground		Binoculars / Photo		UAV	
Other method		If yes, details:			
Ground protection / tracking required:		Yes			
External Contractor appointed for access requirments:		Yes			

Inspection info:

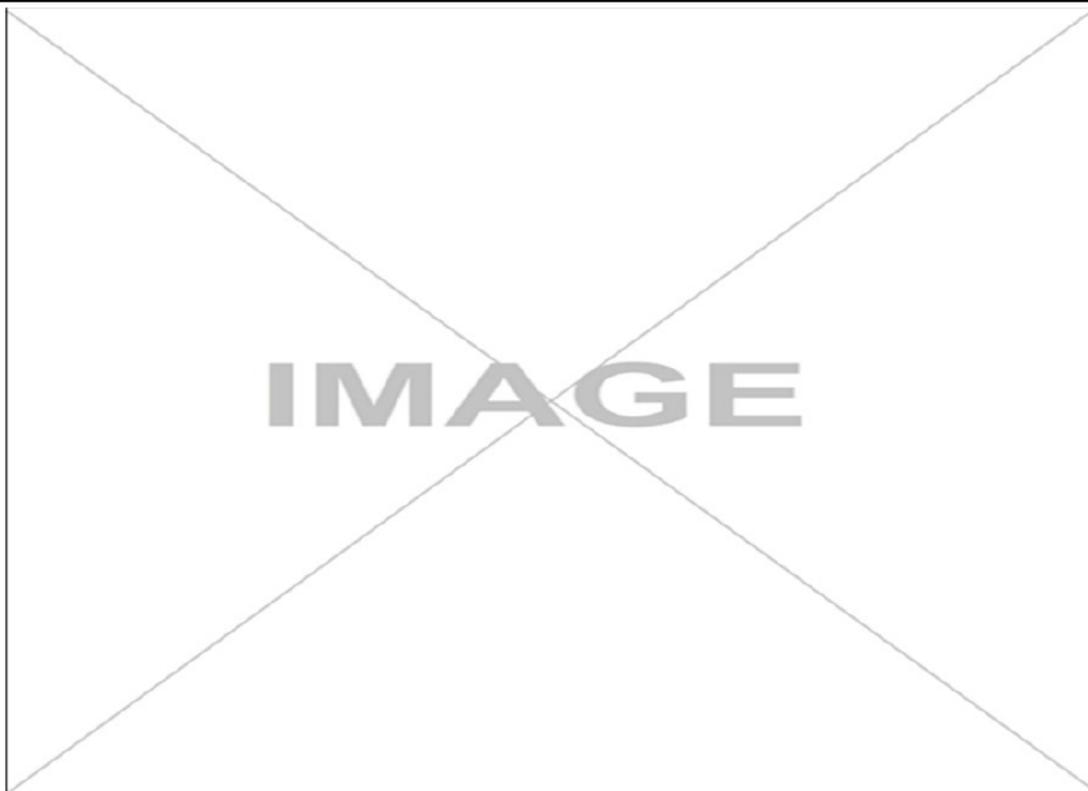
Limitations of inspection:	Exterior of the tower house castle by MEWP, though gable wallheads required rope access due to wall width.
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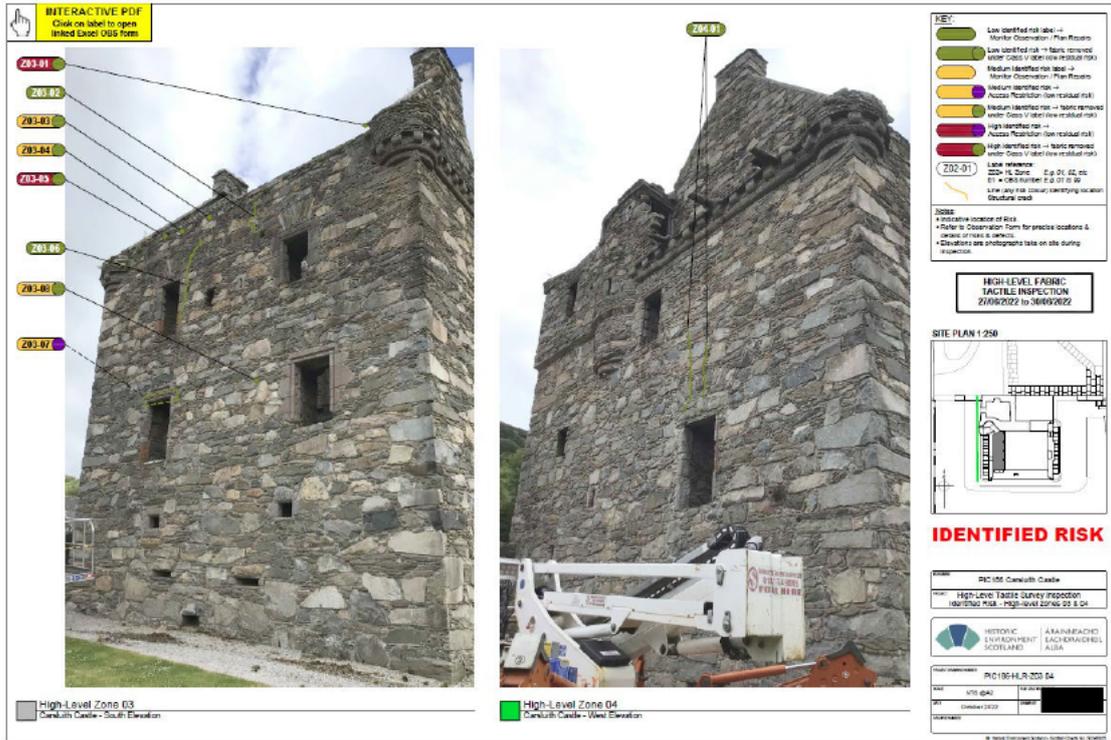
Areas not inspected:	Open interior spaces of the tower house. (NB Risk mitigation survey only)
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Click on link below image to open drawing in PDF viewer:

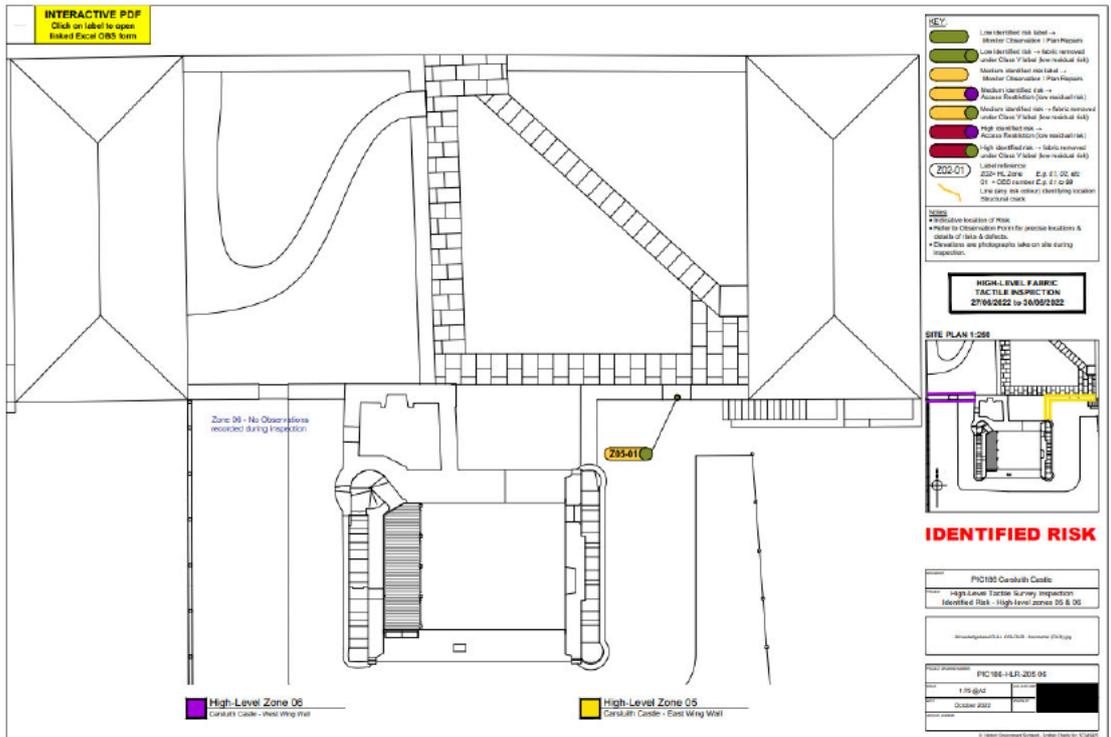


[PIC186-HLZ-03B](#)





[PIC186-HLR-Z03 04](#)



[PIC186-HLR-Z05 06](#)

Click on link below image to open Interactive PDF in PDF viewer. In PDF viewer, the drawing is an interactive PDF, click on the labels to open the relevant OBS form for further information.