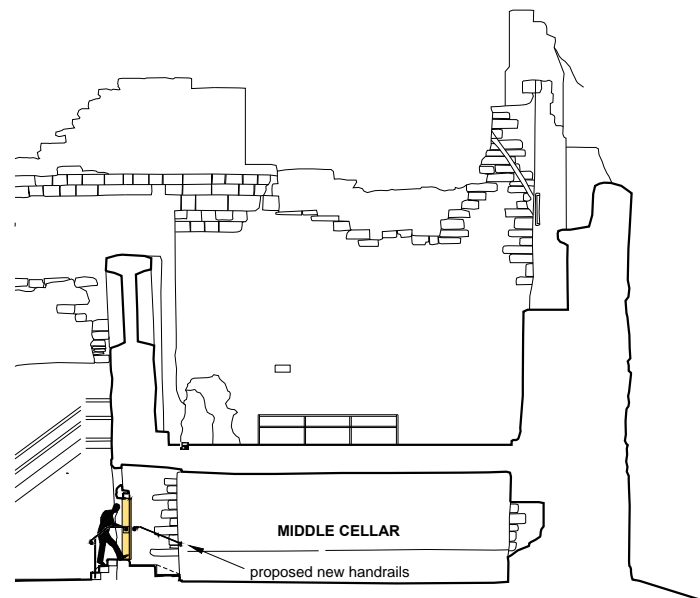
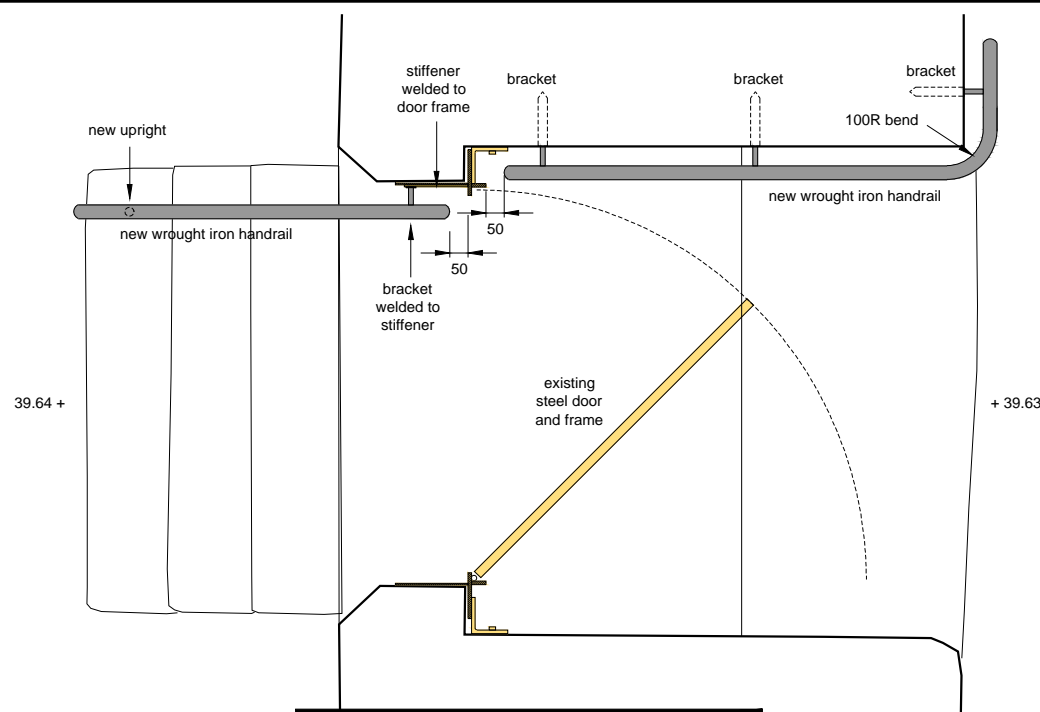


PLAN AT CELLARS

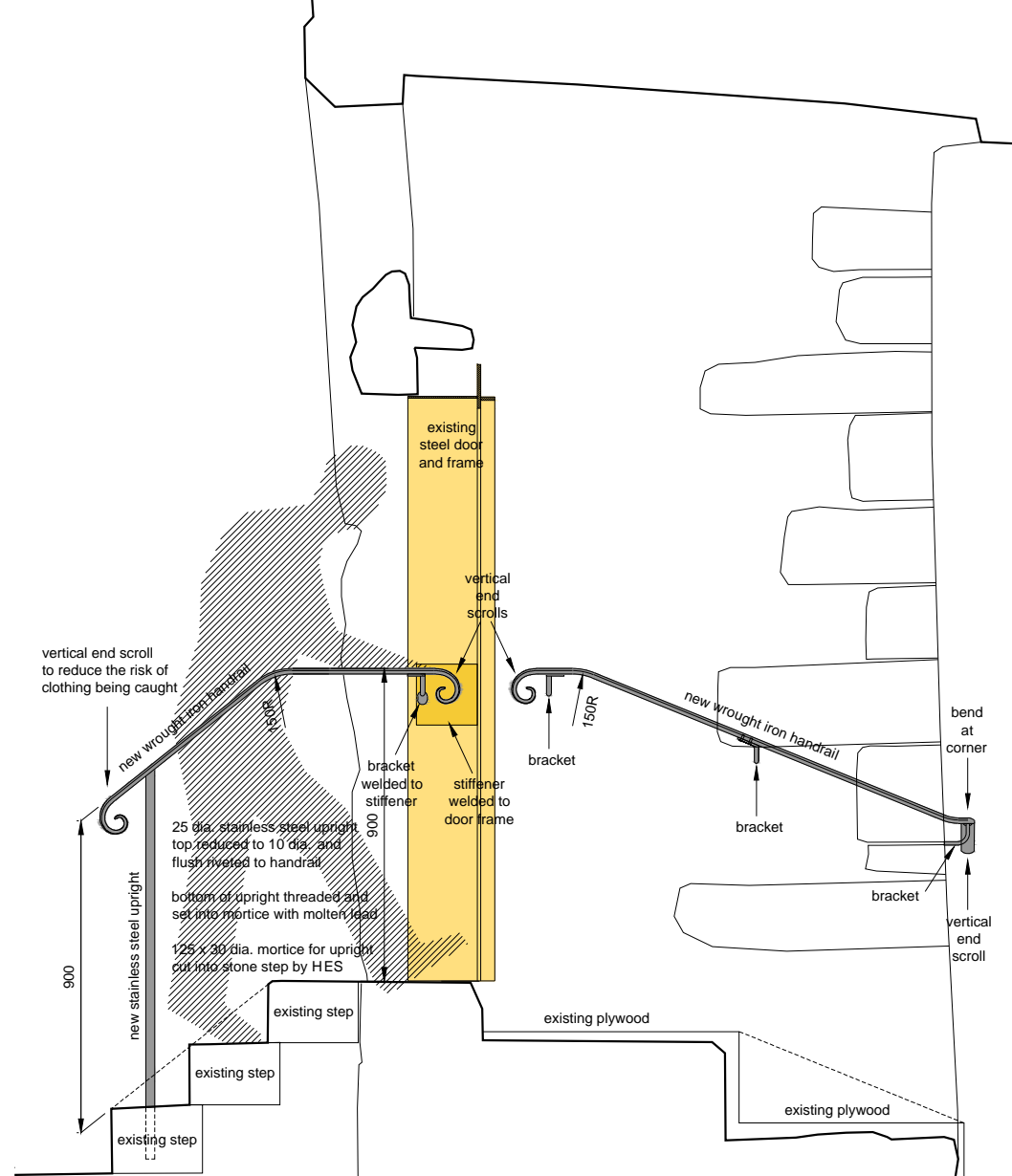
whether handrails are to be fitted at all three cellars is to be decided by DA, subject to budget availability



SECTION AT MIDDLE CELLAR



PLAN AT MIDDLE CELLAR DOOR



SECTION AT MIDDLE CELLAR DOOR

HANDRAIL SPECIFICATION

MATERIALS:
Grades of materials: The new handrails (handrail, brackets and rivets) are to be manufactured using genuine wrought iron supplied by the Real Wrought Iron Company, Carlton Hustwaite, Thirsk, North Yorkshire, England, Telephone 01845 501415 .

The new uprights and holdfasts, where brackets are built into masonry, are to be manufactured using grade 316 stainless steel to BS1449:Pt 2:1993.

FABRICATION GENERALLY:
The metalwork will be clearly visible and is to be hand forged to a high standard using traditional blacksmithing methods. The handrail has been designed with riveted joints. No site welding is permitted. Select rivets appropriate for the purpose. Finished components to be accurately assembled, rigid and free from distortion, cracks, burrs and sharp arrises.

JOINTS:
Joints to be riveted with heads finished flush.

SAMPLE OF THE WORK:
Before commencing fabrication the contractor shall supply a sample of the handrail and upright riveted together for approval by HES, finished and coated to the contract standard, comprising a 400 long hand rail. Examples of similar handrails which have been installed to the required standard can be viewed at the Donjon at Bothwell Castle, and at Newark and Dumbarton Castles

SURFACE FINISH:
Wrought iron components to be covered completely with adherent millscale and little or no rust. Any rust deposits to be removed by heating and brushing off immediately prior to application of coatings. Wrought iron components should not be blast cleaned.

The stainless steel components are to be supplied with a uniform coarse ground finish classified 3A to BS 1449:Pt 2 1983.

APPLIED COATINGS:
This high film build coating system specification should be read in conjunction with 'ICI Trade Paints Site Work Instructions V1'. The coatings are to be applied by professional applicators experienced in this type of work and in accordance with BS 5493:1977. The coatings are to be applied after all cutting and fixing holes have been drilled, unless otherwise specified. All metal components require to have full coating system.

Preparation: Scrub all surfaces with ICI 801 Oil and Grease Remover, which must be thoroughly washed off and allowed to dry.

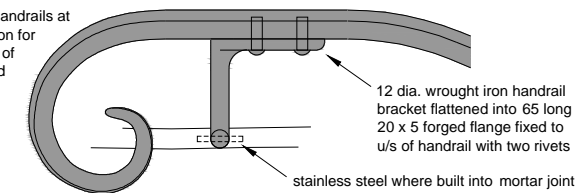
Priming: Prime with one coat of Dulux Trade Metalshield Zinc Phosphate Primer, brush applied to give a wet film thickness of 115 microns (50 microns dry), colour red oxide.

Finish: Two coats of Dulux Trade Metalshield Gloss Finish each applied to give a minimum wet film thickness of 80 microns per coat, giving a minimum dry film thickness of 40 microns per coat, colour black (ref BS 00E53).

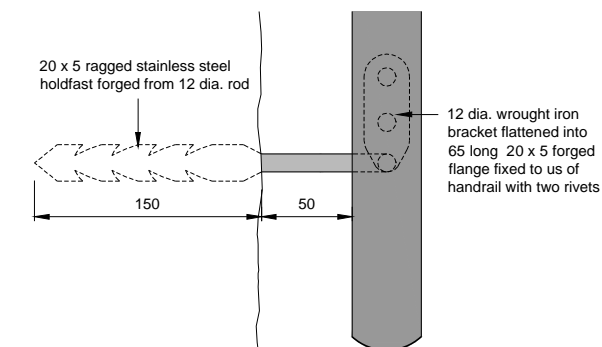
METHOD STATEMENT:
Prior to commencement of the works, the contractor is to submit a method statement for the works, indicating the processes involved in installing and finishing the metalwork.

PROTECTION:
Prior to commencement of the works, and after consideration of the contractor's Method Statement, protection to the monument will be installed and maintained by Historic Scotland.

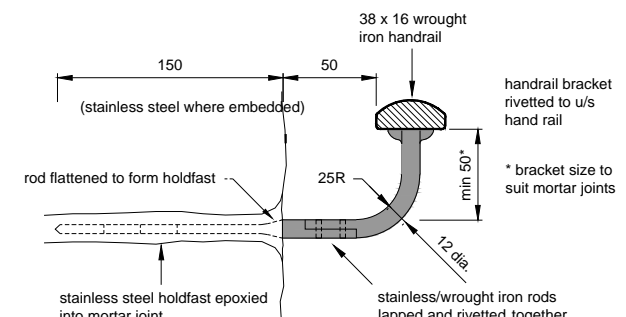
refer to handrails at the Donjon for example of a scrolled end



ELEVATION AT HAND RAIL BRACKET (1:2)



PLAN AT HAND RAIL BRACKET (1:2)



SECTION AT HAND RAIL BRACKET (1:2)

HANDRAIL DETAILS

HANDRAIL BRACKET INSTALLATION

The masonry walls adjacent to the proposed new handrails are exposed sandstone, ashlar and rubble with cement mortar joints

This drawing indicates approximate handrail bracket positions

- the final handrail bracket positions are to be decided on site by HES DA and HMD
- the handrail brackets are to be fitted into mortar joints
- the mortar joints are to be drilled for the handrail brackets by HES stonemasons
- the sandstone masonry is not to be drilled, damaged or defaced in any way

SMC

PROJECT	BOTHWELL CASTLE
PROJECT	New Cellar Handrails



PROJECT DRAWING NUMBER	Proposal
SCALE	NTS
DATE	January 2016
DESIGNED BY	P Beaton
DRAWN BY	S Bain
PROJECT NUMBER	188-038-364