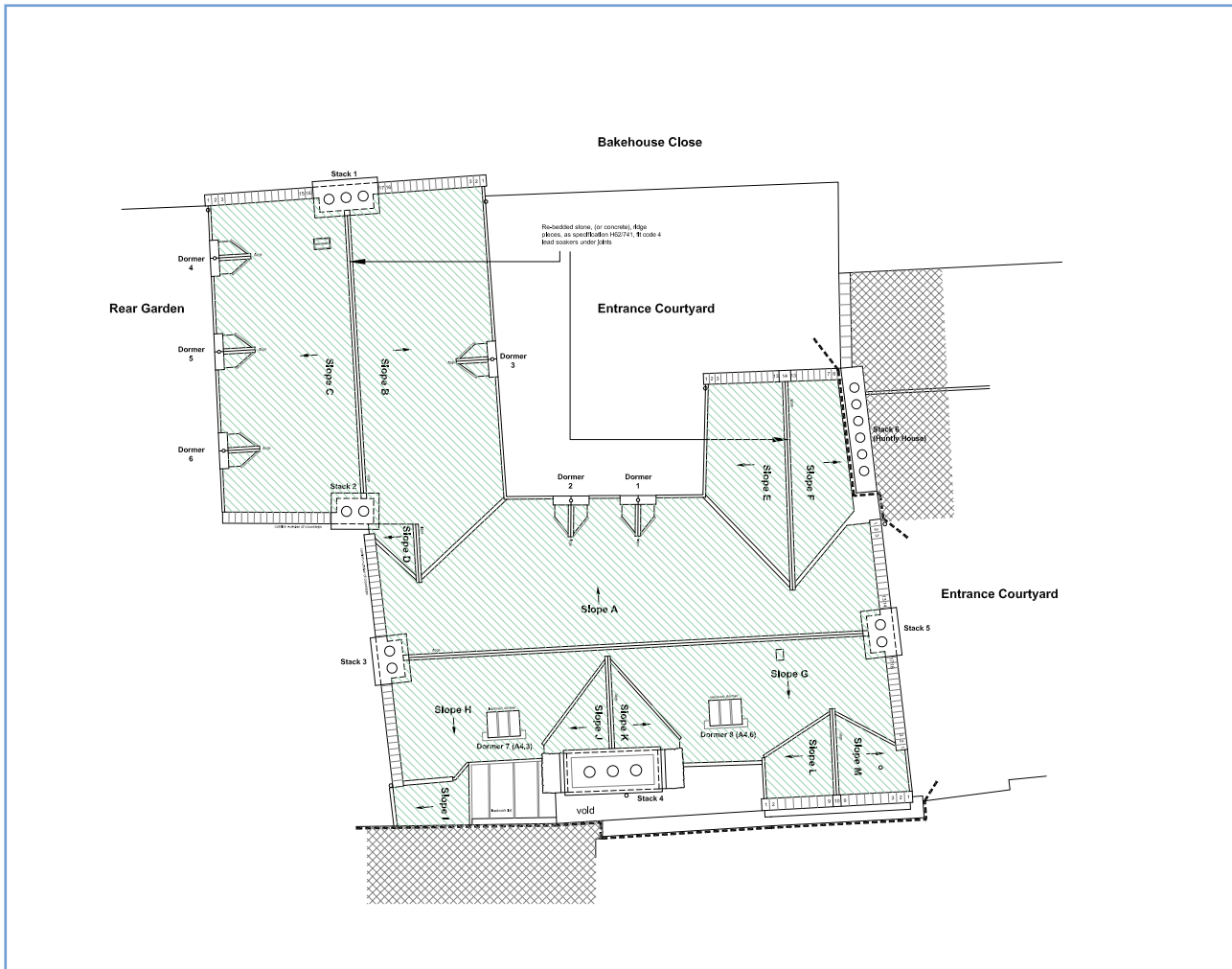


CASE STUDY
ACHESON HOUSE







With thanks to Simpson and Brown Architects and Capital Collections - Edinburgh City Libraries for imagery

Stone features

The refurbishment of the roof at Acheson House is important, as it is one of a very small number of buildings in the past 50 years to use indigenous Scottish stone as a roofing material. Special stone slates, which had not been produced in half a century in Scotland, were sourced from Pitairlie Quarry in Angus, allowing the roof to be fully repaired making the building wind and watertight before the refurbishment took place inside. The stone that was used is a densely compacted variety of sandstone that was traditionally used as roofing tiles as an alternative to slate and for interior floor tiles. Originally, Acheson House would have been roofed in stone tiles from local quarries around Edinburgh, which have long since closed. The recently re-opened Denfind quarry provided a historically accurate and appropriate roofing material for this conservation project. The benefit of finding a source of an appropriate material in Scotland is twofold: it could open up opportunities as a future source for roofing stone, linked to local employment and development of new (old) skills, which are essential in the conservation of historic buildings, but which could also be adapted for use in new buildings. This project encourages the use of locally sourced, traditional material and demonstrates the potential long term sustainability benefits of using local, indigenous materials.

Special techniques

Before the refurbishment of the roof, the original tiles were in very poor condition. The refurbishment tiling process commenced by salvaging as much of the original stone as possible by sorting/resizing and replacing with new material only when necessary. It was possible to reuse one third of the original material. The two thirds new tiles were laid in the same manner as they would have been when the roof was first built. To achieve this, the stone was cut into thin slabs of around 1 cm thick and then fixed to a sarking board layer which was in turn fixed to a timber-framed roof. The stone slates are larger at the bottom and diminish in size moving up the roof towards the apex, a Scottish tradition which minimizes material waste. The slates are held in place with a single copper nail. This is a modern intervention, as originally timber pegs would have been used (or iron nails during later conservation works). In a slight deviation from normal Scottish slating practice the larger tiles were double nailed in this renovation, as the designers and conservators had concerns about the adequacy of single point fixing due to the size and weight of each tile.

CASE STUDY

ACHESON HOUSE

Name of building

Acheson House

Date completed

Original building 17th century, Roof refurbishment 2010

Building type

Regeneration of merchant's house to museum

Location

Royal Mile, Edinburgh

Architect

Simpson and Brown Architects,
(roofing refurbishment only)

Client

City of Edinburgh Council

Main contractor / stone supplier

Scotia Roofing
Denfind Quarry, Angus

Anticipated lifespan of building

100 years

Background to building

Acheson House, on the Royal Mile, is one of Edinburgh's most significant historic buildings. Built between 1633 and 1634, the stone building had many alterations before it was fully restored in 1937. In recent times, the Category A listed building had fallen into disrepair and was on the Scottish Civic Trust's Buildings At Risk Register. A grant from the Edinburgh World Heritage Trust allowed the first stage in the refurbishment to bring the building back to a viable use as a possible museum. The grant, of almost £40,000, helped to restore the building's roof, bringing back the structure to its original character, but also helping to promote the use of stone tiles / 'slates' as a vital traditional roofing material.

The finished project is an exemplar for refurbishment of a building at risk and for the regeneration of local industries and skills.

Material Considerations

A Natural Factory

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