

Details of Proposed Work

General:

- The building has a square floor plan with 2m thick walls and is predominantly intact.
- East wall and part of the South wall are missing.
- The building is generally in good repair but there is vegetation growth, cracks and bulging to walls and the issue of improper mortar in walls that needs to be raked out and replaced with a hydraulic lime mortar using a similar sharp sand to the original mortar.

Internal:

- Vaulted undercroft that is generally in a good state of repair.
- South east corner of the vault has some loose stone work with part of the wall core exposed and slightly deteriorating.
- The wall to the right of the stairs leading to the stone slab first floor has some loose stones and deteriorating mortar- previous pointing used ordinary Portland cement and the hard mortar is beginning to crack.
- The lead gutter draining on the first floor has vegetation growth in it.

External:

- There is vegetation growth in the wall heads and loose coping slates.
- External west and north walls are stable but the west wall appears to have openings appearing in the joints.
- Southern wall has open joints in higher areas, a bulge at the bottom left corner and a visible crack on the right hand corner.

Suggested Repairs and Maintenance:

General:

- Low level areas: grass and weeds will be removed. This will be done by hand to ensure no damage is done to the structure and will use a herbicide to inhibit future growth without damaging the structure.
- Wall heads:
 - Heavy grass growth where roots have caused disturbance, particularly around wall head edge will be removed. This will be done by hand using a suitable herbicide to inhibit future growth.
 - The previous netting used to prevent unsettlement needs to be replaced. The original fixings will stay in situ with only the netting itself being replaced.
 - Throughout the wall heads loose mortar and stones are present and will be stabilised with a NHL 5 hydraulic lime mortar using a sharp sand sourced following analysis of original mortar.

- All grass and vegetation will be removed by hand with any weed root networks being sprayed with a herbicide used to the approval of Historic Scotland, that will not cause any damage to the stonework.

Internal:

- Lead gutter:
 - Debris and vegetation will be removed. This will be done by hand and a suitable herbicide used to inhibit future growth.
 - Once this has been completed the area will be checked to ensure there are no further leaks and appropriately sealed.
- OPC pointing to staircase: The wall will be raked out and repointed using an NHL 3.5 hydraulic lime mortar; using sharp sand sourced following analysis of the original mortar. To ensure the correct sand is used a sample has been taken from Drumin Castle and sent to the Scottish Lime Centre.
- Loose stonework and deteriorating wall core to the South East corner of vaulted area and low level wall heads where vegetation has been removed will be consolidated. Ensuring good water runoff. This will be done using an NHL 5.0 hydraulic lime mortar and sharp sand sourced following analysis of original mortar as above.
- Nests: The presence of a nesting bird was identified during the architects visit to the site. However this has been analysed by a wildlife consultant who was able to confirm the nest was that of a barn owl which will not limit any work unless offspring are present.

External:

- Wall heads (Unclear how consolidated during last work): If nothing already in place to prevent water penetrating into wall core then vegetation should be removed and wall will be consolidated. Any work will use NHL 5.0 hydraulic lime mortar, using sharp sand sourced following analysis of the original mortar.
- Slates: Re-fixed in robust long term method to stand up to exposure. Long term damage to the structure may accrue from water penetration so these will need to be fitted in a safe and secure manner.
- Crack at bottom left corner of South wall will be raked and repointed using NHL 3.5 hydraulic lime mortar; using sharp sand sourced following analysis of original mortar.
- Bulge at the base of the southern wall will be measured and then assessed for any movement in the future.
- Joints to some areas have opened and will require old portland cement raking out and replaced with a lime mortar. This will allow the pointing to breath and release any water that is absorbed through the wall heads. The original portland cement that has been used for pointing in the past will not allow this and may be a contributing factor to other cracking in the wall and the bulging in the southern wall.

All raking and repointing will be carried out by operatives experienced at working with lime mortars.

Planned work

It is proposed that the work will be carried out using portable, free standing scaffolding to decrease the risk of damaging the stonework in any way. This will be carried out in stages focusing on each wall individually.

Any work to wall heads is provisional in nature until the free standing scaffolding has been erected and a full assessment made. Once this has been carried out an updated scheme of works will be provided to Historic Environment Scotland and will not proceed until approval and confirmation has been given.

A work force of no more than 4 operatives will be used, all of which have the relevant experience in this type of work.

Photographic documentation of the work will be taken throughout and a photographic timeline will be submitted to Historic Environment Scotland within four weeks.

A schedule of works will be presented to Historic Environment Scotland two weeks prior to the works start date.

The work force will be briefed on the historic significance of Drumin Castle, the ecological concerns and the requirements of the structure before the commencement of any works.

Drumin Castle: Location and remedial work



Located Approximately 1 mile west of Glenlivet, near the B9136.

The building has a square floor plan with 2m thick walls and is predominantly intact. However the East wall and part of the South wall are missing. The building is generally in good repair but there is vegetation growth, cracks and bulging to walls and the sue of improper mortar in walls that needs to be raked out and replaced with that with that which is similar to the original mortar.

The following photographs and brief descriptions should be used to supplement the Scheduled Monument Clears application form.



Work:



Fallen slate a base of West wall



West wall with missing slate copes



Visible growth on wall heads and slates missing.

The interior of the undercroft is sound with no obvious sign of unstable masonry.



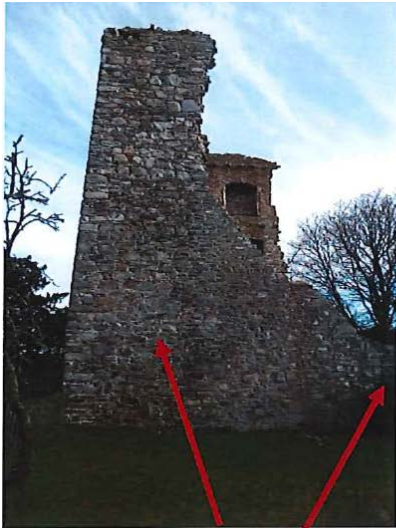
Undercroft



South east internal wall, bottom of staircase, Old Portland Cement visibly cracking.



Lead gutter overgrown.



South wall - bulge area - crack



bulge area with minor crack



crack

Remedial work not considered for bulge in this job. Continual assessment will be undertaken to gauge whether there is any movement. In the future.