



The Social Housing Safety Network Scotland



E-BULLETIN: RAAC

Reinforced Autoclaved Aerated Concrete (RAAC) in the social housing sector in Scotland

We first heard about Reinforced Autoclaved Aerated Concrete (RAAC) in 2023 when there was particular focus on schools and other public buildings. Since then, the social housing sector landlords have been prompted to carry out investigations to determine whether their housing stock contains RAAC.

However, in February 2022, a report was published by [Institute of Structural Engineers RAAC Group](#) following an incident in England in 2018 and an initial safety alert in 2019. Guidance was published by the group in April 2023.

In October 2023, the Scottish Housing Regulator wrote to social landlords requesting information relating to RAAC. The Regulator's letter confirmed that they are working with the Scottish Government to help in the dissemination of information on the risks arising from the presence of RAAC in buildings and to gather better information on its presence in domestic buildings with data being gathered across the public sector in Scotland to understand the extent of the issue.

What is RAAC and why is it used in buildings?

RAAC is a lightweight structural construction material used between the 1950s and 1990s in the floors, walls and roofs of some buildings in Scotland, including some residential properties.

It is no longer used in buildings in Scotland.

It was quicker to produce, easier to install, and cheaper than standard concrete. Despite its name, it is very different to traditional concrete although it looks similar. It is aerated, or 'bubbly', and is therefore less durable than traditional concrete.

While it is likely that RAAC is not widespread in homes provided by social landlords, several landlords have identified the presence of RAAC in some of the homes they provide.

Why is there a risk?

RAAC can be susceptible to failure especially when exposed to moisture. The 'bubbles' can allow water to enter the material and this moisture can also cause decay in any reinforcement steel ('rebar') present in the material.

The presence of RAAC does not necessarily present an immediate risk, however, we know that for social housing providers, the safety of tenants and residents is of paramount importance.

The Scottish Housing Regulator states that it is critical that landlords have a good understanding of the presence and condition of RAAC in the homes they provide and that they have an appropriate plan for its management. Having a good understanding of the presence and condition of RAAC is important to enable landlords to communicate effectively with their tenants to provide appropriate reassurance and information about any action that may need to be taken.

Scottish Government Advice

The Scottish Government is advising social landlords to take a four-stage escalation approach to the identification and risk management of RAAC in their homes:

- **Stage 1:** Discovery – establish presence of RAAC through desk-based review
- **Stage 2:** Discovery – verify presence of RAAC through visual inspection
- **Stage 3:** Assessment – detailed site survey to identify risk and response
- **Stage 4:** Implement RAAC risk management.

The Scottish Housing Regulator set out the specific stages of action relating to RAAC risk assessment and management in their request for information; [you can find the details here](#).

Scottish Housing Regulator's request

As a first step to establish the extent of RAAC in social housing in Scotland, SHR asked social landlords to provide them with the following information:

- Is RAAC present in any of the homes you provide to tenants?
- If you have answered yes, how many homes are affected?
- If you have answered currently investigating, how many homes may have RAAC present?

They also requested that, where RAAC was identified as being present or may be present in common areas, that information should also be included.

Scottish Housing Regulator's Findings so far (24 November 2023)

In late November 2023, the Scottish Housing Regulator shared analysis of social landlords' responses to its survey on Reinforced Autoclaved Aerated Concrete (RAAC) in social housing.

There were a total of 165 responses, with the findings as follows:

- Yes RAAC present in any of the homes provided to tenants - 12
- No RAAC present in any of the homes provided to tenants - 91
- Under Investigation - 62

The Regulator's survey identified that, to date, twelve landlords have identified the presence of RAAC in some of the homes they provide to tenants, with 1150 homes affected.

The findings show that from a total of 62 social landlords, the number of homes currently under investigation is 29,572.

The full dataset is freely available (under FOI) and can be downloaded from the SHR page [here](#).

Landlords that have identified the presence of RAAC in some of their homes

The survey identified the following social landlords as having identified the presence of RAAC in some of their homes:

- Aberdeen City Council
- Almond Housing Association Ltd
- Angus Council
- City of Edinburgh Council
- Clackmannanshire Council
- Dundee City Council
- East Lothian Council
- North Lanarkshire Council
- Rosehill Housing Co-operative Limited
- South Lanarkshire Council
- Stirling Council
- West Lothian Council

Cases in the sector

Here we have a look at the action taken by some of those landlords, as case studies from within the sector.

Clackmannanshire Council

After a desktop study of its council housing, flats in particular, the Council's focus was on surveying low to mid rise buildings. Residents living in flats in Tillicoultry, were sent letters to inform them of the Council's planning survey programme which took place between 25 September 2023 and 6 October 2023. Residents in other areas were lettered during week commencing Monday 9 October about the survey programme.

The surveys by the Council's building engineer were completed on Friday 20 October, with 49 blocks (containing a total 445 flats) surveyed for the presence of RAAC within the roof structures of buildings.

The Council's building engineer confirmed as a result of these inspections that RAAC was present in the roof structure of three buildings (containing 30 flats); the Council's building standards officer also attended the three buildings and agreed with the Council's building engineer on the condition of the roof structures.

With the buildings being dangerous and a risk of collapse, the Council had a legal obligation to evacuate residents from these three buildings. The legal basis for the evacuation was in terms of Section 42 of the Building (Scotland) Act 2003 which was served on residents. A Dangerous Building Notice in terms of Sections 29 and 30 of this Act was also served on owners which required the owners to obtain their own structural report.

The survey programme has identified a further seven blocks (containing 72 flats) where RAAC is present, but there is no immediate concern noted over the condition.

The Council's building engineer is carrying out further investigations on these seven blocks and, once the written reports have been reviewed, discussions will take place with Council tenants and owners on works, if any are required.

Evacuation of residents

The Council did not take the decision to evacuate residents from their homes lightly and understands how difficult and upsetting this was. However, based on the information that was provided by the Council's building engineer the concern was to preserve lives.

Next steps

The Council awaits the final written reports from its building engineer on the three evacuated blocks. Once received, the reports will be reviewed, Considered and discussions will take place with those affected on next steps.

The Council will also continue to liaise directly with residents in any further properties that require to be inspected.



Further desktop surveys are currently ongoing to identify any other housing stock property types that may have potential to contain RAAC. This will include looking at external outbuildings (bin stores, etc.) and external access stairs.

[You can read about this on Clackmannanshire Council's website, here.](#)

Angus Council

The Council are currently carrying out inspections of their non-educational buildings, including council housing, for the presence of RAAC. As part of these investigations, the Council has identified that RAAC was used in the construction of the roof of Rosehill Resource Centre.

A structural engineer has made a full inspection of the roof at Rosehill and has found that the RAAC roof panels are in good condition and there is no cause for concern. The Centre continues to be open and operating as normal; annual inspections will be undertaken, and remedial works implemented as required.

Housing

Angus Council has identified that RAAC has been used in the construction of council and former council properties in Angus. All relevant tenants have been contacted to undertake preliminary and precautionary inspections of all suspected properties where RAAC may be present. These inspections allow the Council to gather essential information to determine if RAAC is present, and bring forward a programme of repairs, if required.

Primary investigations show that the number of affected properties represents only a very small proportion of total housing stock.

Former council owned properties, where the Council is confident RAAC was used in the construction, have also been contacted and advice provided.

[You can read about this on Angus Council's website, here.](#)

Almond Housing Association

Almond Housing identified that just seven of their properties are known to contain RAAC and the association are currently engaging with the tenants of those affected properties. The association has proactively engaged the services of an external specialist structural engineer to survey the seven properties which contain RAAC.

Those tenants who live in the affected properties have been advised of the findings of the survey and the action required to ensure that the properties remain safe to live in.

[You can read about this on the Almond Housing Association website, here.](#)

Aberdeen City Council

Aberdeen City Council has been aware of concerns about the use of this product and has previously conducted a range of surveys and inspections of buildings to assess whether these buildings have this material present. This work has identified several properties which have RAAC within their construction.

The Council are currently reviewing the guidance in place and will be undertaking further inspection and testing works in the affected buildings over the next months. Desktop surveys have been ongoing across the housing estate with an initial focus on flat roof properties; this also includes mono-pitched roof properties, which are roofs that only slant in a single direction. Inspection work will follow, where appropriate, across all council house properties.



To date Aberdeen City Council have identified circa 373 buildings (505 addresses) within the Balnagask area, that are understood to have RAAC construction panels within the roofs at the time they were originally constructed. If ongoing surveys identify RAAC in other properties or house types, then the Council have advised that they will contact occupiers directly.

At any property where the presence of RAAC is likely as identified through the desktop assessment, further surveys will be carried out on these property types (but only as far as within the ownership of the Council).

The Council is working with independent structural engineers who are appropriately qualified and experienced to assess the condition of the RAAC in a small number of vacant properties in the Balnagask area.

Property visits are being arranged with individual tenants to assess the condition of their property. This includes surveys, non-destructive testing and intrusive surveys where necessary to determine condition, original construction detail and other relevant technical assessments. The information gathered will lead to the development of an action plan, to address any risks identified (where appropriate), for further discussion with residents.

Evacuation

For Council tenancies only, and where RAAC is known to be in place, the Council will advise whether there is a need to vacate properties to allow survey works to be carried out.

The Council are continuing to work closely with independent structural engineers and inspections and intrusive investigation of RAAC panels are currently ongoing to assess their current condition.

The Council will confirm the outcome of these investigations and next steps when the investigatory work on the initial sample of properties is complete and they have considered the recommendations. A further update is expected when a mitigation strategy has been approved.

The Council is carrying out intrusive testing on a small number of their vacant properties with investigations still ongoing. It is important to understand that each property needs to be assessed by qualified professionals; the preliminary assessments have revealed a range of conditions of the RAAC roof panels.

It is the intention of the Council to extend these inspections to occupied properties to inform a wider consideration of the estate.

If RAAC has been manufactured, installed, and maintained correctly, then it poses no more danger to a building than other construction products.



[You can read about this on the Aberdeen City Council, here.](#)