

My thoughts on the Issues with the Defective Block Scheme:

From the outset, I saw many issues with the previous 90-10 scheme and as time progresses it is becoming more and more apparent that the issues identified were real and there are now several more in this new scheme. Although there are some improvements (rental, storage cost etc.), I see this new scheme as falling well short of what is required and it is certainly much worse for the homeowners than the previous scheme.

Shortly after the original scheme launched, I wrote to the chairman of the DCC Mica redress committee to outline my concerns for homeowners entering the scheme. After getting a nothing response, I then wrote to all Engineers on the IS 465 register, again outlining my concerns. It soon became clear that many of the register Engineers shared my concerns.

Up to this point there was absolutely no correspondence between the Engineers on the register. A roundtable discussion was then arranged, chaired by Engineers Ireland – three such meetings took place from July through the summer months. Although useful, these meetings were much too short to allow any meaningful debate on the subject.

The damage being seen on the ground most certainly did not back up the theory behind IS 465 or the Expert Panel that the issue in Donegal was purely a freeze thaw issue and it is possibly not even purely a mechanical mica issue. The longer it goes on the more convinced I am that my concerns regarding the degradation mechanism are correct. What I do know for certain is that there has been no coordinated or reliable research done to back up the assumptions made in IS 465.

There are many issues with the flawed IS 465 Standard document which have an impact on the scheme and a lot of these have been publicised previously by independent registered scheme Engineers. None of these appear to have been mentioned in the new scheme. Possibly this is deliberate, as it will be the in house government engineers that will be using the IS 465 now and they will not care about the longevity of remedial proposals.

One issue that is strange is the fact that the Standard is limited to two counties only. It seems extremely odd to develop a Standard and limit it geographically – I have never come across this before and have no other standards in my office that are limited like this.

Another issue is that it is limited to mica in Donegal and pyrite in Mayo. This again is very strange as when this document was being written there was no definitive testing carried out to determine the actual problematic materials within the blocks in either county. All deleterious materials need to be allowed for, in all jurisdictions. The IS 465 Standard is based on the conclusions of the Expert Panel report, an Expert Panel who conducted no testing whatsoever and referenced reports with very limited testing. We are seeing high levels of Sulphide minerals in all tests in Donegal - this has a major impact on the house assessment, and this has not been recognised at all to date.

As such, this Standard has put the cart before the horse in recommending remedial options – none of the remedial Options 2-5 suggested can be deemed effective as they are based on no specific scientific research. There is no one that can tell me for sure or even give me a percentage guess as to how the remedials proposed in this standard will perform with time.

In the case that the concrete blocks are shown to contain higher than recommended levels of deleterious material within the aggregates, it is likely that the foundation concrete came from the same supplier, hence the same aggregates. As such, I am of the opinion that the structurally critical concrete foundations should also be tested/checked, particularly given the elevated levels of harmful sulphide minerals identified.

The standard only asks for two compressive strength tests – one in the rising wall and one in the inner leaf. Statistically this is not nearly enough to allow for anomalies or outliers. Some houses we have tested received a 10N/mm²+ result for a visually deteriorated house. When sent for a second 'crush test' they then received ~3N/mm² results. Relying on the first alone would suggest no issue with the strength. We are seeing huge variations in strength within one section of wall, let alone the entire house.

The advised Suite B testing (XRD) does not provide as accurate insight as Suite C (SEM), which most laboratories have reverted to instead. I am of the opinion that in order to provide meaningful information the SEM data should be from the same block as the compressive strength test. This will allow patterns to be established and accurate comparisons to be made. Otherwise, correlations cannot be accurately stood over, as significant variations are being seen within different blocks in the same dwelling.

When we enquired of NSAI we were told that the current IS 465 is currently being reviewed, with a view to changes. It has also been confirmed that it is the same committee that finalised the original standard that are now reviewing it. As a registered Engineer, I have been made aware of nothing as regards this or any ongoing research. It is clear that there is no significant coordinated research into the issue, so how can the standard be suitably revised? This research was called for several years ago and the government have sat on their hands to date.

A standardised concerted testing scheme would mean that houses currently being tested (and in particular those being demolished) could be used to build an accurate database and thus establish trends and predict behaviours of structures into the future. In other words, replicate the research carried out for the Mundic Problem in Cornwall.

The new scheme.

There are various issues that I see with the new scheme. It is my firm opinion that this scheme is much worse for the homeowners than the previous 90-10 scheme. I believe the homeowners will realise that in time. I believe that the working group process, although well intentioned on the homeowners' behalf, has suggested and seemingly agreed numerous changes that are to the detriment of the homeowners.

One of the main issues is the introduction of the 'damage threshold', which incidentally has yet to be defined. Damage is defined as '**physical harm that impairs the value, usefulness, or normal function of something**'. I would contend that, if a block is tested for strength and is expected to be in the region of 10.0N/mm² and it tests at, say, circa 5.0N/mm², it is 'damaged', regardless if this damage is visible or not. This 'damage' may not be sufficiently visible, and as such will prevent the homeowners accessing this scheme.

It will become clear, unless something changes, that a lot of homeowners will not be able to get access to the scheme, whereas they could before. If we take the example of a homeowner under the existing scheme in a housing development. They will know that, even if they currently may have relatively minor visible damage, they have high levels of deleterious materials if neighbouring properties have been tested. They can engage an engineer and get testing done and if strengths are low and levels of deleterious materials high, they can get remedial works prescribed by their engineer and proceed to fix the house and move on with their lives.

Under the new scheme, the independent engineers will do an initial building condition assessment which will detail the visible damage evident. This will be submitted to the housing agency engineers for evaluation and this government engineer will then decide if the visible damage is sufficient for the homeowner to be admitted onto the scheme or not. If sufficient damage is not evident then there will be no admission to the scheme. We are told there is to be an appeals process, but given no information on how it is to be carried out or who makes the final decision – if it is the housing agency, how independent is it?

For house proud homeowners they will most likely have to 'let their house go' for a number of years to allow it to display sufficient damage to allow access to the scheme. During this time they will be effectively 'trapped' in the house while they are forced to watch it deteriorate around them. To me this is mental torture. They have successfully campaigned for a barrier (financial) to entry onto the scheme to be removed but it has been replaced with another one, this time one that they are not in control of.

We have a recent example in our own practice of a dwelling that visually looks almost perfect as the owner is a plasterer and has been very proactive in fixing and painting over all cracks within weeks of them appearing. When tested this house has concrete block strengths of circa 2.0N/mm² and very high mica and pyrrhotite content. This is one of the worst houses we have on our books, yet visually looked near perfect.

Commercial, agricultural and community buildings are not mentioned and the criteria and limitation on rental properties are very restrictive and not even clarified as yet. The Government are going to take a charge on your rental property based on the level of grant aid given. It is rumoured that they may insist that it is rented as social housing to alleviate a housing shortage. In effect you then do not fully own or even control your rental property. How will the government take a charge on a property if it is already mortgaged? Will they seek to recoup monies provided under the grant scheme out of rental payments? There may be no equity left in any case. What if you have it rented currently to someone who is not a council tenant – do you evict them in favour of a council tenant? To my mind, this is unworkable and the scheme claims to include rental homes, but it does not really. What role have the banks and mortgage companies in all of this? It seems unfair to limit this to one property only.

As we know holiday homes are excluded completely. I know a local man who has a holiday home in Malin, bought for Euro350k in 2006. This holiday home will ultimately need demolished due to significant masonry damage. This man sold his house in Co. Derry in 2006 to fully fund the purchase of the holiday/retirement home, which he now wishes to retire to. He is now still living in rented accommodation in Derry and does not have a house suitable to move into. The scheme makes no

allowance for these holiday homes. We had been told that no-one would be left behind - it was an all or nothing deal.

The homeowner representatives first suggested the economy of scale reduction/sliding scale in their own submission in the working group document presented to the Government. The homeowners' representatives on the working group also suggested an overall cap was required – why is a cap needed when they have a square foot rate? Surely this is discrimination – in the big picture the very small number of larger houses will not significantly impact the overall cost of the scheme. This is akin to BMW doing a recall on all cars for a brake disc issue, then saying they will not do the larger 7 series as those people who can afford them can afford to fix the issue themselves. It should be remembered that the rates and caps published are inclusive of VAT and demolition costs, professional fees etc.

It is my belief that a lot of homeowners will not need to worry about the square foot rates as there will be minimal, if any, demolitions. The homeowners do not seem to realise that they have taken the independent assessment out of it – the engineer was in their corner before and now they have no-one. The in-house government engineers will have the benefit of not caring about the longevity of any partial fixes, about their Professional Indemnity Insurance or future claims – and particularly now with a second entry onto the scheme in the future. There is no doubt that the bare minimum remedials will be recommended and it will be a take it or leave it. If the person making the decision on remedial works also holds the purse strings and is not going to be subject to any recourse, then you can be sure that the absolute minimal works will be carried out – works that in my opinion will be insufficient to fully resolve the issues. The homeowners will be told to try the outer leaf fix and see how it goes, and if it doesn't work they can have another go in 5 -10 years' time. Again, the homeowners will be effectively trapped in their houses that will still have significant structural elements containing high levels of deleterious material, designated by expert Geologists as having a high likelihood of future degradation. They may again have to sit and watch their house reach a second 'damage threshold' to get on the scheme a second time.

It is important for all to understand that there is no option, as one homeowner thought when she was speaking to me recently, that you can do your outer leaf now and if there is further deterioration then you can do the inner leaf or internal walls later i.e. in two halves. This is not possible – any work or money spent now doing a partial remedial is fully lost as it will be scrapped if and when a second job is done later. Effectively what seems to the government to be a cheap fix now may turn out to be a much more expensive one in the long term.

Scheme Engineers will not certify remedial works in any case and most definitely if they have not specified them. A certificate of remedial works is mentioned and there is no detail around it and no indication of who provides it. It states that this can be relied upon to restore equity and allow conveyancing etc. but I very much doubt that it will have that effect. I certainly would not pay close to full market value for any house that has had confirmed deleterious materials in the blocks and a partial fix regardless of what piece of paper was supplied.

The square foot rate is very poor way to cost anything as a flat rate for entire build. As an example, due to underlying ground conditions some houses will take Euro50k to get out of the ground and some Euro20k. As is standard industry practice, all sub structures are subject to remeasure i.e. the house can be reasonably accurately priced from ground level up but that below the ground can vary

significantly. There therefore needs to be some form of remeasure for sub structures, as is standard industry practice.

There is no clarity on what specification rebuilds and remedials have to meet – do they have to conform to latest Building Regulations including green energy standards or not? This will have a significant impact on the base cost.

There are obviously anomalies, such as houses on piles – there is no option to change size there – what if ground beams are tested and show elevated levels of pyrite/pyrrhotite?

The campaign group pushed throughout the summer for the mica big three – the three pillars. These were:

- 1. 100% redress,**
- 2. State backed Guarantee**
- 3. No excluded homes.**

As it stands it would seem to me that none of these three have been adequately achieved and the public are being told that the scheme is workable, all but the economies of scale reductions to the square foot rate. This would certainly seem to me to be at odds with the campaign to date. Much focus is on the 'sliding scale' and its removal, as if it is the one and only issue here. Even the campaign leaders and local politicians do not seem to be seeing the issues at hand – the importance of getting a proper long term fix appears to have been missed. The sliding scale is only one of the issues with this scheme. What I believe will happen is that the scale will shortly be removed or reduced and all involved will be lauded and see this as a success. Enough people will feel that they will get redress and the dissenters will be labelled as whingers.

The working group arrangement to negotiate with the government was a very peculiar process. Personally, as homeowners, I would have instructed a team made up of at least one or two leading quantity surveyors, engineers, geologists and construction law barristers etc. I did note that at the time the government stated that they would fund reasonable costs for the working group process. I would have published minutes of every meeting for all to see etc. I certainly would not have been taking help or advice from any Government body, such as the housing agency – the results of this approach are now clear to be seen in this new 'enhanced' scheme and this will play out in the coming months and years.

I would query the legal status of this working group and homeowner representatives – did they have a mandate to negotiate and accept a scheme on behalf of all of those people affected? There did appear to be frustration among many due to the lack of openness to different points of view throughout the process and there was little in terms of transparency. The Engineers were informed on social media that the homeowners' representatives were meeting with them. In fact, a couple of quick Engineers Ireland meetings late in the day were all that took place with the Engineers Ireland registrar, who was not even involved in the scheme. As Engineers working on the scheme, we were given no opportunity to provide input to the working group. As this was the case, the Engineers prepared their own submission and submitted it in September to the overall working group. It is not clear what happened to the information on this submission. The final working group position paper,

that was extremely vague and lacking in detail, was only shown to the public after it was presented to government.

To me this is a very strange way to develop a scheme for all, given the magnitude of the problem here. People will say that it is easy to be critical after the event, but I have spoken with many homeowners who have tried to query the process and the decisions being made on their behalf from the outset and were met with silence or blocked. In addition, I have spoken with numerous homeowners who were afraid to speak out in case it diluted the campaign or looked like a split in the camp. It has been, and still is, a well-orchestrated social media PR campaign in that regard.

As I said previously, the performance of the Government since this issue first raised its head some 10 years ago has been nothing short of pathetic and it has not improved in recent weeks. I do not live in the jurisdiction and have no interest in the politics of the situation. It is clear that the problem is very significant and is affecting the fabric of the housing stock across a significant swathe of the country and the Government reaction has been minimal. This is having a major impact on the lives, finances and health of many families and needs to be addressed in a proper manner. This has not happened to date and if they were to wait until the government 'do the right thing' this will never happen.

It is hard to see how this can be progressed adequately under the current proposals, given the above. I believe that at some point, and by some means, the Government will have to step up and provide a scheme that provides 100 percent redress for the victims – it seems that, for now, they will get away with this current scheme as it stands.

It must be remembered that the homeowners are victims in this and they, and those building the houses did nothing wrong. This is purely about a defective product being allowed onto the market due to a lack of market surveillance and policing of legislation. It remains to be seen the part the block suppliers had in all of this, but it is very clear that the Government failed to enforce legislation that allowed this to happen.

The Government spin has been first class to date and the false calls for an investigation into how this happened have been comical. The disdain that the homeowners representatives were treated with by the majority of senior politicians was clear to be seen. The Government know that they are largely to blame, so do not want to look into the matter fully. Rather than pleading with them to do the right thing (which will never happen voluntarily) the Government need to be forced into it. In my opinion, legal means is the only way this will happen, possibly in Europe. Obviously a semi workable scheme needs to be implemented now so that the dangerous houses are made safe, but I would suggest in time the legal route will force the government into doing what is required, so that all can get what they deserve. I will welcome the findings of the seemingly inevitable public enquiry.

It is also clear that the same thing could easily happen or be happening as we speak in any county in Ireland. Those who are vocal now about the generosity of the redress scheme offered here may be best suited to remain quiet as they too could easily be facing the exact same issue in the years to come and need to avail of similar. All focus should be on fixing the problem now and putting their energy into making sure they have learned from it and put in place systems to ensure that it cannot happen again.

I imagine that some readers may well say that I am an Engineer and aggrieved as a lot of the independent Engineer's work is being taken in house. That is far from the case. I have said previously that I will withdraw from the register. I have taken on no new clients since March and will be withdrawing as soon as I get all of my clients through Stage 1 of the existing scheme. I will continue to do my best for my clients and would wish the best for all of the affected property owners. However I personally see this latest enhanced scheme as having taken a very small step forward but a significant step backwards in their fight for justice. A new strategy is required. The definition of insanity is doing the same thing over and over again and expecting a different result.

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