

Report from the Working Group on the Defective

Concrete Blocks Grant Scheme

30th September 2021

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Overview & Process

The aim of this working group report is to inform the government's consideration of changes to the Defective Concrete Blocks Grant scheme. The report presents in detail the views of homeowners, submissions received and clarifications on the issues the Working Group interrogated over the past several months.

The Minister for Housing will consider this report. He will then brief the Coalition party leaders and consult with the Minister for Public Expenditure and Reform, Minister for Finance and Attorney General to draft a Memo for Government to agree changes to the scheme in the coming weeks. Any changes will require whole of government approval.

The Working Group acknowledges the commitment and effort that volunteer members gave to its deliberations in order to ensure the scheme works for those it was established to help.

1. Background

The cracking of the external walls of dwellings in Donegal and Mayo, due to the crumbling of concrete blockwork, came to light and public prominence in 2013.

An Expert Panel was established in 2016 to investigate the matter. It was chaired by Mr Denis McCarthy and it included representatives nominated by the National Standards Authority of Ireland, Association of Consulting Engineers of Ireland, and the Institute of Geologists of Ireland. Their Report was published on 13 June 2017. It concluded that the disintegration of the concrete blocks used in the construction of the affected dwellings in Donegal and Mayo was primarily due to excessive amounts of deleterious materials in the aggregate used to manufacture the concrete blocks. The deleterious material in Donegal was primarily muscovite mica and in Mayo it was primarily reactive pyrite.

In many of the affected dwellings, the problems appear to have been exacerbated by their location in geographic areas of severe exposure and the ingress of moisture into the concrete blocks. The problems were possibly accelerated by the extreme weather conditions arising in the winters of 2009 and 2010.

Estimates from the Report of the Expert group on the potential number of homes affected.

Donegal	Minimum potential number of homes affected	Estimated potential number of homes affected
Private Homes	1,200	4,800
Social Housing Units	541	1,000

Мауо	Minimum potential number of homes affected	Estimated potential number of homes affected
Private Homes	345	Not Quantified
Social Housing Units	17	150

2. The Grant Scheme

A. Defective Concrete Blocks Grant Scheme

The Defective Concrete Blocks Grant Scheme was signed into law under S.I. No. 25 of 2020 on the 31 January 2020.

The existing scheme was informed by the work of an Expert Panel and finalised in consultation with the Office of the Attorney General and the Department of Public Expenditure and Reform and taking account of the comprehensive engagement that took place between DHLGH, both local authorities and homeowner representatives.

The aim of the scheme is to help in so far as possible to reinstate family homes to a liveable and structurally sound condition. The available funding must be used prudently so as to benefit as many homeowners as possible.

In formulating the scheme a contribution of 10% from affected homeowners was deemed appropriate to help:

- incentivise cost control costs and take account of improvements to the homes;
- incentivise the choice and use of the most appropriate remediation option; and
- promote sustainability through the reuse of sound materials (circular economy)

It is important to note that the defective concrete blocks grant scheme is not a compensation or redress scheme.

It is a grant scheme of last resort put in place by Government in order to voluntarily assist homeowners in a very difficult position with no other apparent options open to them to remediate actual damage to their homes/principal private residences.

- (a) The Scheme was launched in January 2020 and opened for applications at the end of June 2020. The Scheme applies only to dwellings in Donegal and Mayo, and the Scheme is administered by Donegal and Mayo County Councils.
- (b) Regulations were published in 2020 S.I. No. 25 of 2020 Dwellings damaged by the use of defective concrete blocks in construction (Remediation) (Financial Assistance) Regulations 2020.
- (c) In May 2020 the Department issued the "Administrative Guidelines for Donegal and Mayo County Councils Defective Concrete Blocks Grant Scheme".
- (d) There have been representations indicating that there may be affected dwellings in Sligo, Limerick, Clare, and Tipperary and other local authority areas, but these are currently outside the scope of the Scheme and would need to show the evidence of defective concrete blocks. Work is underway in this regard, led by the relevant local authorities.

Activity Under the Scheme to Date

Under the operating terms of the Scheme, homeowners initially engage a registered engineer to assess the property for eligibility. Once eligibility is confirmed by the relevant local authority the homeowners engineer then prepares a remedial works plan. Again, this Plan must then be assessed and approved by the relevant local authority.

To date 1,364 online registrations have taken place and 572 formal applications have been received by the two local authorities.

Of these 572 applications, 414 have received Stage 1 Approval - 'Confirmation of Eligibility' and 39 have received Stage 2 approval – 'Confirmation of Grant Approval'.

There is a considerable time lag between stage 1 approval and stage 2 submissions as homeowners have their engineers prepare a remedial works plan and the works are costed by the proposed contractor etc.

B. Key Documents

- a) Report of the Expert Panel on Concrete Blocks 2017
- b) Irish Standard I.S. 465:2018 Assessment, testing, categorisation of damaged buildings incorporating concrete blocks containing certain deleterious materials.
- c) S.I. No. 25 of 2020 Dwellings damaged by the use of defective concrete blocks in construction (Remediation) (Financial Assistance) Regulations 2020
- d) Administrative Guidelines for Donegal and Mayo County Councils Defective Concrete Blocks Grant Scheme, May 2020
- e) Overview of Defective Concrete Blocks Grant Scheme 2020 Department of Housing, Local Government and Heritage.

C. Application Stages

Stage 1 - Confirmation of Eligibility

- Homeowner applies to the local authority providing an engineer's report as
 evidence of damage to principal private residence as a result of defective
 concrete blocks due to the presence of excessive amounts of pyrite or mica.
- Local authority confirms eligibility to proceed to Stage 2, subject to the terms
 of the Scheme.

Stage 2 - Approval of Grant

- Before works commence, the homeowner applies for grant approval, submitting a remedial works plan with estimated costs for remediation of the dwelling
- Local authority confirms the maximum approved grant amount, subject to the terms of the Scheme.

Stage 3 - Payment of Grant

- Following completion and certification of works, homeowner applies for full or partial payment of grant approved at Stage 2.
- Local authority pays the grant to homeowner, subject to the terms of the Scheme. Stage payments to grant recipients are also facilitated

D. What Grants Amounts Are Available?

- Where remedial works are deemed necessary, the local authority may approve a grant up to 90% of the costs (subject to maximum limits).
- There are 5 remedial options and maximum approved cost is dependent on the remedial option, as recommended in the engineer's report (See Table below).

Remedial Option	Remedial Works Description	Maximum Approved Cost (including VAT)	Maximum Grant
Option 1	Demolish entire dwelling to foundation level and rebuild.	€275,000	€247,500
Option 2	Demolish and rebuild external walls (both outer and inner leafs) down to foundation on a phased basis and rerender.	€220,000	€198,000
Option 3	Demolish and rebuild external walls (both outer and internal leafs) down to top of rising wall on a phased basis and re-render.	€210,000	€189,000
Option 4	Demolish and rebuild external walls (outer leaf only) down to top of rising wall on a phased basis and re-render.	€75,000	€67,500
Option 5	Demolish and rebuild outer leaf of affected walls only and re-render.	€55,000	€49,500

E. I.S. 465:2018 – Assessment, testing and categorisation of damaged buildings

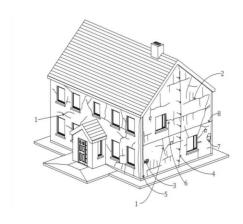
Concrete blocks manufactured from aggregates containing excessive amounts of certain potentially deleterious materials, and subject to substantial ingress of moisture and/or freeze thaw conditions can have reduced strength and durability resulting in disintegration. Concrete masonry which remains in a dry state will not suffer from freeze thaw effects.

This Irish Standard IS: 465:

- a) establishes a protocol for assessing and determining whether a building has been damaged by concrete blocks containing excessive amounts of certain deleterious materials (muscovite mica or pyrite);
- b) describes matters for establishing the extent of the problem and categorizes dwellings;
- c) describes the scope of any testing required and evaluation of the findings; and
- d) provides the Chartered Engineer with guidance on the selection of the appropriate remedial works to be undertaken.

Figure 2 - Typical Defects Encountered

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Key:

- 1.Web like cracking
- 2.Pattern like cracking (combined horizontal and vertical)
- 3.Disintegration blocks leaving void in external leaf
- 4.Outward bowing of external leaf
- 5. Wide vertical crack, typically 200 mm from corner
- 6.Displacement at window / door reveals
- 7.Render blown or missing
- 8.Horizontal cracks (possibly attributed to day joint in blockwork)

Building Condition Assessment

The Building Condition Assessment shall be carried out by a Chartered Engineer and shall comprise a desk study and a dwelling inspection composed of a non-invasive external and an internal visual inspection of the dwelling. The purpose of the desk study is to obtain relevant information, prior to the dwelling inspection. The purpose of the dwelling inspection is to determine the presence or absence of apparent damage, that is consistent with defective blocks, and to record the extent and significance of such damage.

Donegal - Table 6: Selection of recommended remediation options (for dwellings with blockwork containing excessive free muscovite mica)

Results from Building Condition Assessment		Geologist Classification Risk of blockwork (Table 3) – High and blockwork sound but potentially susceptible to deterioration	Geologist Classification Risk of Blockwork (Table 3) – Critical or high or unsound
Rising Wall	Inner Leaf	Minimum Remediation Option a (SeeTable D.1)	
Undamaged	Undamaged	Option 4 b	N/A
Undamaged	Damaged	Option 3	Option 2
Damaged	Damaged/Undamaged	Option 2	Option 1

- 1. Works shall be incorporated which resist moisture ingress or otherwise protect against freeze thaw in retained blockwork, e.g. membranes, renders, insulation etc.
- 2. The efficacy and longevity of remedial works options other than Option 1 and Option 2 of Table D.1 are as yet uncertain. Based on limited data available to date, concrete blocks containing free muscovite mica will not deteriorate if they are kept dry in freezing conditions or are protected from freezing when wet
- 3. Any sign off in respect of such remedial works shall acknowledge the risk inherent in retaining blockwork which could be susceptible to degradation if exposed to freeze thaw conditions
- 4. Ongoing maintenance and monitoring of the dwellings structural condition would be required if Option 3, Option 4 or Option 5 are implemented to assess if/when further structural action should be taken
- a In certain circumstances, less invasive Options may need to be considered
- b Where damage is sufficiently localised, remediation Option 5 may be considered

Mayo - Dwellings exhibiting structural wall damage due to pyrite induced expansion in concrete blocks

In the case of a dwelling in Group 2, Group 3 or group 4, which is exhibiting structural wall damage as a consequence of pyrite induced expansion, Option 1 in Table D.2, (demolish entire dwelling and rebuild) is an effective solution which can be signed off by the Chartered Engineer. For dwellings in Group 2 and Group 3 alternative options could be considered by the dwelling owner, in consultation with the Chartered Engineer, to try to reduce the rate of block deterioration. The efficacy, longevity and risk of such alternatives is not known. Ongoing maintenance and monitoring of the dwellings structural condition would be required if such options are implemented to assess if/when further structural action should be taken.

F. S.I. No. 25 of 2020 – Dwellings damaged by the use of defective concrete blocks in construction (Remediation) (Financial Assistance) Regulations 2020

Remedial Option

It is important to understand the remedial options on which financial assistance can be approved by Donegal County Council or Mayo County Council.

Interpretations (Article 3)

"relevant remedial option", in relation to a relevant dwelling, means the remedial option recommended in the engineer's report as representing the remedial option requiring the minimum feasible remedial works to the dwelling for the remediation of the damage to the dwelling arising out of, or in connection with, the use of defective concrete blocks in its construction:

"remedial works plan", in relation to a relevant dwelling, means a plan for the design, specification and inspection of the works required to be carried out to the dwelling for the purposes of the relevant remedial option, having regard to I.S. 465:2018, which is prepared by a competent engineer;

Engineer's Report (Article 6)

For the purposes of these Regulations, an "engineer's report" means –

- a) a final report prepared in accordance with I.S. 465:2018 by a competent engineer in respect of a relevant dwelling, that sets out confirmation of the existence of damage to the dwelling arising out of, or in connection with, the use of defective concrete blocks in the construction of the dwelling, and
- b) a recommendation by the competent engineer who prepared the final report referred to in paragraph (a), the form of which may be specified by the Minister, of a relevant remedial option in respect of the relevant dwelling that represents the **minimum** feasible remedial works outlined in that final report.

Minimum feasible remedial works - financial assistance

Minimum feasible remedial works to the dwelling for the remediation of the damage to the dwelling arising out of the use of defective concrete blocks in its construction determines what financial assistance can be approved.

From Table 6 "Selection of recommended remediation options" of I.S. 465 standard the "minimum remediation option" where the rising walls and the inner leaf are undamaged is Option 4.

G. Remedial Option

7.1 What Remedial Work Proposal should be approved?

- (a) It is clear from the regulations that the recommendation by the competent engineer who prepared the final report for a relevant remedial option in respect of the relevant dwelling is required to represent the minimum feasible remedial works outlined in that final report. The grant approval should be on this basis. (Note: The home- owner may choose to carry out more works to the dwelling. However, the grant should be based on the minimal feasible remediation works.)
- (b) **Option 4** is the replacement of the outer leaf of the external walls. In many cases it is only the outer leaf that has actual damage. However, hybrid solutions are appropriate in certain cases. For example, it may be appropriate to do the remediation work under Option 4 and also undertake work to the external rising walls.
- (c) There was an expectation that Option 4 would be the primary remediation option to be used. However, from the assessments of applications made to the relevant local authorities so far, which represent less than 10% of the potential homes currently in scope, 56% of dwellings are being approved for Option 1, which is full demolition. In addition, a number of consulting engineers are recommending this in a larger proportion of cases and Engineers Ireland has highlighted issues which could see the prevalence of Option 1 recommendations being the norm.

3. Projected Cost of the Defective Concrete Blocks Grant Scheme

Number of Eligible Homes

It is difficult to predict with accuracy the number of homes which will be eligible for funding under the Scheme. Whilst the Expert Group did provide estimates for the number of homes likely to be impacted by defective concrete blocks in Donegal and Mayo, this figure includes an unquantified number of homes which are not currently eligible to apply for funding under the Scheme as they are not principal private residences. In addition, no estimate was provided by the Expert Group on the likely number of homes outside of Donegal and Mayo which may be impacted and would be eligible to apply for funding under the scheme, if the scheme is extended beyond Mayo and Donegal, which is expected if the same conditions are proven.

Discounting for the estimated number of impacted homes not eligible for the Scheme i.e. holiday homes, buy to lets, vacant homes etc. the DHLGH estimates are that approximately 6,600 homes may require remediation arising from defective concrete blocks. This includes all potentially eligible privately owned homes in the counties of Donegal and Mayo and an estimate for homes in other local authority areas which may come into the scheme. This figure also includes an estimated 1,000 social homes which according to local authorities will need remediation. This figure is an estimated projection only.

Financial Projections

It has become apparent over time that large numbers of homes are being recommended by IS 465 engineers for Option 1 and to a lesser extent Option 2. Options 3-5 are not being recommended as the minimum feasible remediation options to the extent originally envisaged when the scheme was being formulated. This obviously has significant financial implications. In addition, local authority areas outside of Donegal and Mayo have begun to seek admittance to the scheme and demands to fund social homes, now that a scheme is in place for private homes, have grown.

Based on Stage 1 approval data available to the Department from the relevant local authorities after the scheme was open for six months it was estimated that the average cost per home was €150.000.

Based on 6,600 homes the likely overall cost was estimated at just under €1 Billion.

As the number of remedial options 1 have continued to grow the average cost had risen to €174,000 after nine months, to €204,000 12 months and is now at €209,000.

On the basis of actual applications and approvals therefore, the projected cost of remediating homes under the Scheme, as well as remediating social homes, has risen by almost 50% in recent months and is now estimated at €1.4 Billion.

Given the scale of Exchequer funding required, any changes to the scheme which contribute to a further rise in the projected cost will require very serious consideration by Government.

4. Working Group - Scope of Review and Deliberations

In June of 2021, in response to concerns raised by homeowners, Minister Darragh O'Brien established a representative and time bound working group to review and address issues in relation to the Defective Concrete Blocks Grant Scheme.

The membership of the working group comprised of 3 homeowners from Donegal nominated by the Donegal Mica Action Group, 3 homeowners from Mayo nominated by the Mayo Pyrite Group and the North Mayo Pyrite Group, 3 officials from the Department of Housing, Local Government and Heritage nominated by Minister O'Brien, 1 official from Donegal County Council nominated by the Donegal CC Chief Executive and 1 official from Mayo County Council nominated by the Mayo CC Chief Executive. The Group was chaired by the Secretary General of the Department of Housing, Local Government and Heritage.

Over the course of it's work, four homeowner representatives withdrew from the Working Group and were replaced by new nominees of the homeowner action groups. The representative from Donegal County Council withdrew late in the process due to retirement.

Scope of the Review

The Working Group was tasked with considering the issues which had been raised in relation to the Defective Concrete Blocks Grant Scheme, including grant caps, homeowner contributions, engineering costs, allowable costs etc.

The Group was originally required to report to Minister O'Brien, by the 31st July, 2021. However, this date was extended to the 30th September, 2021 at the request of homeowner representatives During this extended period the Housing Agency facilitated detailed technical financial and administrative analysis of some key issues with homeowners.

The 8 issues which were within the scope of the review are listed hereunder.

Issues Within Scope of Review	Detail
1. SEAI Grants	To consider the need for homeowner eligibility for SEAI grants and make recommendations to the Minister
2. IS:465 Costs	To consider options for homeowners to fund IS:465 costs and make recommendations to the Minister
3. Eligible Homes	To review the scope of homes deemed eligible and make recommendations to the Minister
4. Allowable Costs and Qualifying Works	To review the allowable costs and qualifying works under the scheme and make recommendations to the Minister
5. Homeowner Contribution	To review the existing homeowner contribution and make recommendations to the Minister
6. Existing Grant Caps	To review the existing grant caps and make recommendations to the Minister
7. Role of Responsible Parties and Financial Institutions	To consider what assistance, if any, is required or can be secured from responsible parties and financial institutions/funds who hold mortgages over DCB homes and make recommendations to the Minister
8. Public Enquiry	To consider calls for the establishment of a public enquiry into the issue of defective concrete blocks and make recommendations to the Minister

Deliberations

The first meeting of the Working Group took place on the 30th June, 2021. The terms of reference for the working group were agreed at the first meeting (Appendix 1). A further 6 meetings were held prior to the final meeting of the working group which took place on the 29th September, 2021. Meetings were held on the following dates;

30th June, 7th July, 14th July, 21st and 23rd July, 27th July, 17th September, 29th September

In addition, break out groups from the main Working Group engaged on specific aspects of the scheme with various stakeholders and officials from the Housing Agency, Engineers Ireland, SCSI and DHLGH throughout the months of August and September. Engineers Ireland subsequently made a formal submission to the Working Group and this is set out in Appendix 2

At the meeting on 17th September the homeowner representatives presented their "final homeowner submission" to the Group and subsequently published its submission. This "Final Homeowner Submission" is included at Appendix 3.

Responses from the Department of Housing, Local Government and Heritage are outlined in Appendix 4

5. Other Issues

Though not strictly within the terms of reference of the Working Group, a number of other issues were raised by homeowners, and discussion was facilitated at the Working Group, as follows:

- 1. The National Standards Authority of Ireland I.S. 465 Protocol
- 2. Administration and Implementation of the Scheme including the potential for a state run scheme along the lines of the Pyrite Remediation Scheme
- 3. Insurance Cover Engineers, Contractors and Homeowners
- 4. Local Property Tax liability¹
- 5. Support for DCB homeowners (being dealt with through the provision of additional support for the relevant local authorities)

Items 1 - 4 require more time to properly investigate and evaluate in terms of scientific, technical, legal and financial implications requiring specialist expertise. Other stakeholders external to the Group would also need to be consulted and given time to consider the issues.

Appendix 1 – Terms of Reference

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¹This issue has been dealt with by the Department of Finance and a 6 year LPT exemption is now in place

Terms of Reference for the Defective Concrete Blocks Grant Scheme

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Introduction

In response to concerns being raised by homeowners in Donegal and Mayo in regard to the Defective Concrete Blocks Grant Scheme, the Minister for Housing, Local Government and Heritage has requested that a time bound working group, with representatives from his Department, the relevant local authorities and homeowner representative groups, would be established to review and address any outstanding issues in relation to the operation of the Defective Concrete Blocks Grant Scheme.

The working group will be required to complete its work and submit a report with recommendations to the Minister for Housing, Local Government and Heritage. It is intended that this report and the recommendations therein will inform any changes or improvements to the scheme, as may be required. The Minister will, following consultation with Ministerial colleagues and in particular with the Minister for Public Expenditure and Reform and the Attorney General, bring forward proposals to Government for consideration.

Background to Defective Concrete Blocks Grant Scheme

Expert Panel

The cracking of external walls of dwellings in Donegal and Mayo, due to the crumbling of concrete blockwork, came to light in 2013. An Expert Panel was established in 2016 to investigate the matter. It was chaired by Mr. Denis McCarthy (formerly of Waterford Co Co) and it included representatives nominated by the National Standards Authority of Ireland, Association of Consulting Engineers of Ireland, and the Institute of Geologists of Ireland.

The report of the expert panel (available on the Department's website) was published on the 13th June 2017. It concluded that the disintegration of the concrete blocks used in the construction of the affected dwellings in Donegal and Mayo was primarily due to *excessive* amounts of deleterious materials in the aggregate used to manufacture the concrete blocks. The deleterious material in Donegal was primarily muscovite mica and in Mayo it was primarily reactive pyrite.

In many of the affected dwellings, the problems appear to have been exacerbated by their location in geographic areas of severe exposure and the ingress of moisture into the concrete blocks. The problems were possibly accelerated by the extreme weather conditions arising in the winters of 2009 and 2010.

Scale of the Problem

The panel estimated that the scale of the problem in Donegal as being between 1,200 - 4,800 private dwellings and 541 - 1,000 social housing dwellings. In the case of Mayo, the panel estimated that the minimum potential number of private dwellings likely to be affected is approximately 345 with 17 social housing units across 3 estates known to be affected.

Defective Concrete Blocks Grant Scheme

On the 31 January 2020, the Minister for Housing, Planning and Local Government and the Minister for Public Expenditure and Reform, made Regulations to provide for a grant scheme to support affected homeowners in Donegal and Mayo. The Department subsequently prepared and issued guidelines on the operation of the scheme to both Councils to assist them in the administration of the scheme. The scheme opened for applications in June 2020.

The goal of the grant scheme is to help a restricted group of homeowners who have no other practicable option to seek redress. It is not a compensation scheme but a mechanism for the State to help ordinary homeowners to remediate defects to their principal private residence and return their homes to the condition they would have been in had they not been built with defective concrete blocks.

I.S.:465 Protocol and Register of Engineers

The Department of Housing, Local Government and Heritage arranged for the National Standards Authority of Ireland (NSAI) to prepare and publish a standardised protocol for the assessment, testing and categorisation of damaged buildings incorporating concrete blocks containing certain deleterious materials.

The I.S. 465:2018 protocol was published in November 2018. It allows for a consistent and reliable assessment to be undertaken to determine whether a building has been damaged by concrete blocks containing excessive amounts of certain deleterious materials. It:

- describes methods for establishing the extent of the problem;
- o describes the scope of any testing required; and
- o categorises buildings, in accordance with this Standard, providing competent persons with guidance on the appropriate measures to be taken.

The Department of Housing, Local Government and Heritage also arranged for Engineers Ireland to establish a register of Chartered Engineers who have the necessary professional experience, competence and specialist training in accordance with the requirements set out in the I.S. 465:2018 protocol.

Remediation Options and Funding

The expert panel put forward a total of 5 engineering solutions to address the defects, ranging from removal and replacement of the outer leaf of affected walls only to the complete rebuild of the dwelling. The level of funding available is subject to the maximum limits below depending on the remedial option recommended in the engineer's report or 90% of the eligible costs, whichever is the lesser. The grant may be paid out in stages.

Remedial Option	Remedial Option Description	Maximum Approved Cost ¹	Maximum Grant Payable ^{1,2}
Option 1	Demolish entire dwelling to foundation level and rebuild.	€275,000	€247,500
Option 2	Demolish and rebuild external walls (both outer and inner leafs) down to foundation on a phased basis and rerender.	€220,000	€198,000
Option 3	Demolish and rebuild external walls (both outer and internal leafs) down to top of rising wall on a phased basis and re-render.	€210,000	€189,000
Option 4	Demolish and rebuild external walls (outer leaf only) down to top of rising wall on a phased basis and rerender.	€75,000	€67,500
Option 5	Demolish and rebuild outer leaf of affected walls only and re-render.	€55,000	€49,500

^{1.} All costs are inclusive of VAT.

Eligibility for the Scheme

This scheme applies to the owners of dwellings (located in Donegal or Mayo) that are damaged due to the use of defective concrete blocks containing excessive amounts of deleterious materials, namely mica or pyrite.

The dwelling must be the individual's principal private residence.

The dwelling must have been constructed or acquired prior to 31 January 2020.

Eligible costs covered by the Scheme

The scheme covers up to 90% of the costs associated with the remediation of the dwelling including:

^{2.} Not to exceed 90% of the maximum approved cost or, 90% of actual cost of the qualifying works, whichever is the lesser.

- Engineer's report (including the final report in accordance with I.S. 465);
- o Preparation of remedial works plan by a competent engineer;
- Costs associated with a contractor carrying out the remedial works;
- Professional oversight of the remedial works, including inspection and certification;
- o Removal of furniture/contents, temporary storage, and external painting.

Only works carried out after the Stage 2: Grant Approval are eligible for funding

Engagement by Homeowners with the Scheme

Homeowners have been engaging with the scheme and already 448 homeowners have applied for grant assistance, 296 of whom have received a Stage 1 - Confirmation of Eligibility and 16 of whom have received a Stage 2 - Grant Approval.

Of the 296 homeowners approved for Stage 1 almost half have had their homes recommended for demolition and re-build. The current average cost of remediation for homes approved for Stage 1 is €174,000 per home. Current estimates for remediation of homes, including social homes and homes in counties not currently within the scope of the scheme is €1 billion.

Scope of the Review of the Defective Concrete Blocks Grant Scheme

Issue	Details
SEAI Grants	To consider the need for homeowner eligibility for SEAI grants and make recommendations to the Minister
IS:465 Costs	To consider options for homeowners to fund IS:465 costs and make recommendations to the Minister
Eligible Homes	To review the scope of homes deemed eligible and make recommendations to the Minister
Allowable Costs and Qualifying Works	To review the allowable costs and qualifying works under the scheme and make recommendations to the Minister
Homeowner Contribution	To review the existing homeowner contribution and make recommendations to the Minister
Existing Grant Caps	To review the existing grant caps and make recommendations to the Minister
Role of Responsible Parties and Financial Institutions	To consider what assistance, if any, is required or can be secured from responsible parties and financial institutions/funds who hold mortgages over DCB homes and make recommendations to the Minister
Public Enquiry	To consider calls for the establishment of a public enquiry into the issue of defective concrete blocks and make recommendations to the Minister

Meetings

Meetings will be held weekly and a schedule of meetings will be agreed at the first meeting of the working group. Such other meetings as are deemed necessary by the Chair may also be held.

The quorum for meetings shall be not less than 7 members. In addition a minimum of 4 homeowner representatives (at least one from each local authority area), 1 local authority representative and 2 D/HLGH representatives must be present to form a quorum.

Agendas and meetings administration will be managed by D/HLGH and all agendas and reports shall be approved for circulation by the Chair. Agendas, minutes, reports etc. shall be circulated by email to working group members.

Minutes of all meetings will be recorded by the secretary to the working group. Minutes will record attendance, decisions taken, dissension from decisions and any additional commentary necessary to give meaning to decisions taken.

D/HLGH will provide secretarial support to the working group.

Costs

It is not envisaged that significant costs will arise for the working group but any legitimate costs which do arise will be covered by the Department of Housing, Local Government and Heritage

Decision Making

The working group should strive for consensus at all times in decision making.

Timescale

The working group will be required to complete its work and submit a report with recommendations to the Minister for Housing, Local Government and Heritage by the 31st July, 2021.

Membership of the Working Group

The membership of the working group shall comprise 3 homeowners from Donegal nominated by the Donegal Mica Action Group, 3 homeowners from Mayo nominated by the Mayo Pyrite Group and the North Mayo Pyrite Group, 3 officials from the Department of Housing, Local Government and Heritage nominated by Minister O'Brien, one official from Donegal County Council nominated by the Donegal Chief Executive and one official from Mayo County Council nominated by the Mayo Chief Executive.

The group will be chaired by the Secretary General of the Department of Housing, Local Government and Heritage

The following members have been nominated to the working group;

Graham Doyle, Secretary General, D/HLGH - Chairperson

Barry Quinlan, Assistant Secretary, D/HLGH

Paul Benson, Principal Officer, D/HLGH

John O'Connor, CEO, Housing Agency - Independent Housing Expert and Advisor

Michael Doherty, Donegal Homeowner

Paddy Diver, Donegal Homeowner (Replaced by Ann Owens and then Joe Morgan)

Eileen Doherty, Donegal Homeowner

Loren Devers, Mayo Homeowner (Replaced by Eamon Jackson)

Jamie-Lee Donnelly, Mayo Homeowner (Replaced by Julie Tracey)

Josephine Murphy, Mayo Homeowner (Replaced by Martina Hegarty)

Joe Peoples, Director of Services, Donegal County Council (Retired – Not Replaced)

Tom Gilligan, Director of Services, Mayo County Council

Substitutes - Ann Owens for Donegal – Dorothy Keane for Mayo

Meetings of the working group may also be attended by advisors to Minister O'Brien, D/HLGH and Minister McGrath, D/PER

Appendix 2 - Submission from Engineers Ireland



Submission to the Working Group on the Defective Blocks Grant Scheme

Introduction

Engineers Ireland welcomes the establishment of the Working Group on Defective Blocks Grant Scheme. This document provides a summary of issues identified during the first year of the Defective Concrete Block Grant Scheme experienced by Chartered Engineers who are members of the I.S. 465 Concrete Blocks and Mica Register of Engineers, (registrants), considered competent to assess houses damaged by defective blocks containing certain deleterious materials.

This submission relates to the provision of services, by the registrants, associated with the assessment of dwellings affected by defective concrete blocks in accordance with I.S. 465:2018+A1:2020 "Assessment, testing and categorisation of damaged buildings incorporating concrete blocks containing certain deleterious materials" for the purposes of supporting applications to the scheme.

Registrants from the I.S. 465 Concrete Blocks and Mica Register (maintained by Engineers Ireland) are facing increasing challenges in assessing properties and preparing reports in support of clients' applications to the scheme. This submission sets out the key issues which have been experienced by registrants. The experiences detailed in this document have resulted in several registrants calling into question the viability of continuing to provide this service. This is obviously a major concern for Engineers Ireland and the registrants.

This document has been compiled following three online meetings, hosted by Engineers Ireland, during July, August, and September of this year. It is also based on online surveys of registrants in December 2020 and August 2012 to provide feedback on topics to stakeholders.

The meetings were organised at the request of some of the registrants to provide a forum to facilitate a discussion on views and experiences, in a collective way, of Engineers experiences and observations in the provision of services associated with assessing, reporting, and supporting homeowner applications for the Defective Block Grant Scheme.

Though not represented at the meetings of the Defective Blocks Grant Scheme Working Group Engineers Ireland does welcome and acknowledge the opportunity to participate in the online discussions at the latter stages of the process with a sub-group of the Working Group comprising mostly of homeowners during the second half of August. It is hoped the issues outlined therein, in conjunction with this document will get due consideration and action in the deliberations of the Working Group.

The registrant provides a pivotal and key role in the scheme processes and a fundamental party between their client, the homeowner, and the Administrators of the scheme. The registrant is the homeowner's representative and being at the forefront of the matter, they have first-hand knowledge of the issues, and have a good understanding of the key difficulties affecting their clients.

This submission provides high-level observations during the first year of the scheme by our members, registrants on the I.S. 465 register established in 2020. This includes:

- The Role of the Engineer on the I.S. 465 Register
- Concerns regarding second remediation
- Issues for further consideration
- Discussion on the operational impact of several possible approaches

The views expressed by registrants in this document are intended to guide improvements in I.S. 465 and the operation of the 'Defective Concrete Blocks Grant Scheme' for the benefit of all stakeholders.

The engineers on the I.S. 465 register have extensive experience working as Chartered Engineers, and since the establishment of the I.S. 465 Register have surveyed more than 1,600 homes in Donegal and Mayo.

About Engineers Ireland

With over 25,000 members from every discipline of engineering, Engineers Ireland is the voice of the engineering profession in Ireland. Engineers Ireland was established in 1835 making us one of the oldest and largest professional bodies in the country. Members come from every discipline of engineering and range from engineering students to Fellows of the profession. Engineers Ireland is the registered Competent Authority in Ireland for the engineering profession under EU Directive 2005/36 and is a founding member of the International Engineering Alliance, an organisation committed to the adoption of global standards in engineering education and competence. Engineers Ireland also accredits engineering programmes at third level in fourteen Institutes of Technology and seven Universities.

Engineers Ireland awards the professional title Chartered Engineer (CEng MIEI) in line with the Institution of Civil Engineers of Ireland (Charter Amendment) Act 1969. Chartered Engineers have been assessed by their peers as professionals in their field in delivering the highest standards of quality, expertise, and innovation to serve the needs of society while ensuring public health and safety. They adhere to the Engineers Ireland Code of Ethics in all areas of their engineering practice.

Chartered Engineers are committed to solving problems by designing and implementing solutions to address the needs of customers and society in general. As required by the Code of Ethics of Engineers Ireland Chartered Engineers "shall at all times be conscious of the effects of their work on the health and safety of individuals and on the welfare of society".

The registered professional title is recognised internationally and under Irish Law. According to the Building Control (Amendment) Regulations (SI 9 of 2014 & Code of Practice),

Chartered Engineers are one of the three professions which may act as Assigned Certifiers.

Engineers Ireland has also established and maintains registers of suitable qualified persons in specialist areas including:

- IS 398 Pyrite Assessment and Remediation
- Historical Landfill Waste Disposal Sites (EPA, 2007).
- I.S. 465 Mica and Pyrite

Our members contribute to the development of national standards and policies with consultative groups across industry. Recent submissions include:

- Draft Code of Practice for Fire Safety assessment of premises and buildings
 Submission to Joint Oireachtas Committee on Professional Indemnity Insurance
- Submission on Climate Action Plan Review 2021.

A list of Engineers Ireland's submissions to key stakeholders is available here: https://www.engineersireland.ie/Professionals/News-Insights/Campaigns-and policies/Submissions

For many years Engineers Ireland has proactively sought greater protection for the public through the regulation of engineering activities, in particular where there is risk associated with the delivery of engineering services. There is the potential threat to public safety, health, and welfare if engineering projects are not implemented by appropriately qualified and competent practitioners. Risks to consumers of engineering services relate mainly to financial, safety, health and welfare issues associated with engaging inadequately or inappropriately qualified persons to undertake engineering works. The consequences of misjudgement can be costly in either financial or human terms. Aside from immediate health and safety implications of engaging poor engineering services, there can be enormous financial costs to the individual with the delivery of poor engineering services.

The Role of the Engineer on I.S. 465 Register

The I.S. 465 standard (Section 1)

- a) Establishes a protocol for assessing and determining whether a building has been damaged by concrete blocks containing excessive amounts of certain deleterious materials (aggregate containing free or unbound muscovite mica or potentially deleterious quantities of pyrite).
- b) Describes the methods for establishing the extent of the problem and categorise dwellings.
- c) Describes the scope of any testing required and the evaluation of the findings; and
- d) Provides the Chartered Engineer with guidance on the selection of the appropriate remedial works to be undertaken.

The role of the registrant, an engineer on the I.S. 465 register, as set out is purely to prescribe/oversee testing and provide guidance on appropriate remedial works. By virtue of being on the I.S. 465 register a registrant is not acting as an Assigned Certifier or in any other statutory role. In practice, it is reported that the role of registrants extends beyond purely engineering-related related work.

In late 2018 Engineers Ireland was requested by the Department of Housing, Local Government & Heritage (DHLGH) to provide a training programme with the outcome of establishing and maintaining a Register of Engineers considered competent to assess buildings damaged due to precast concrete blocks containing certain deleterious materials in accordance with the Standard and hold professional indemnity insurance.

This register lists Chartered Engineers who have the necessary direct professional experience, competency, and specialist training in accordance with the requirements set out in the Standard. There are currently in or around 30 Engineers on the register – this number has reduced from 38 since the inception of the register.

Concerns Relating to Second Remediation

The primary issue with the current scheme is the liability risks associated with providing this service as defined in I.S. 465 to homeowners. Specifically, the risks are inherent with

reference to options of remediation other than Option 1 Demolish & Rebuild, i.e., Options 2, 3, 4 & 5 (or a combination thereof) where blockwork is being retained (reference the standard and scheme administrative guidelines).

This is exacerbated by the fact that laboratory reports indicate that a further deleterious material, namely pyrrhotite, has been determined to be present in concrete blocks in Donegal, the significance of which is unknown.

Engineers are being asked to make recommendations on remedial works whereby the mechanism for degradation of concrete blocks requires further research. Furthermore, the scheme emphasises the engineer should make a recommended remedial option that demonstrates the "minimum feasible option" forcing a remedial option that would include retention of blockwork where the technical evidence doesn't support that option. Long term structural performance of the retained blockwork is uncertain and requires further research. This leaves potential future liability risks for the registrant which is exacerbated by the fact the scheme is limited to one applicant, one home, one grant.

Homeowners understandably want certainty in the recommended remedial option.

However, in these cases, given that the mechanism for concrete block degradation is not fully understood and with wording in the standard including caveats, uncertainty has become commonplace among homeowners.

A survey of registrants in December 2020 indicated that Option 1 (demolish to foundation level and rebuild) was recommended in 68% of cases in a sample size of 210. In August 2021 this figure was 62% from a sample of approximately 1,600 dwellings. Options 2 and 4 or a combination thereof are the next most frequent recommendations. Registrants are reporting a trend towards increasing recommendations for Option 1 due to the absence of any substantiating evidence/research to mitigate risk or support a decision to opt for other remedial options.

The overwhelming sentiment regarding the scheme is the lack of certainty concerning partial remediation and the liability for any second and subsequent investigation and remediation works. It is therefore no surprise that recommending Options 2-5 creates considerable unease with registrants. Registrants feel exposed when after an initial remediation, the potential for further damage may occur. Registrants are being asked to recommend remedial works based on currently available information which lacks evidence on the long term structural performance of retained blockwork containing deleterious material including free muscovite mica or pyrrhotite. There is a concerning lack of urgency from any Government body as regards a co-ordinated approach to research into the subject — a subject which has been calling out for such research for at least 6-7 years. Further research was recommended in the report of the Expert Panel on Concrete Blocks in 2017.

Engineers strongly value their professional indemnity insurance which is essential to them conducting their practice and without which engineers cannot work. There is a perception that the current structure of the scheme could give rise to claims arising on an engineer's professional indemnity insurance arising from a second remediation. The footnotes to I.S. 465 Table 6 refer to the uncertainty of any remediation option other than Option 1 and Option 2 and contains a reference to 'limited test data'.

"The efficacy and longevity of remedial works options other than Option1 and Option 2 of Table D.1 are as yet uncertain. **Based on limited test data available to date**, concrete blocks containing free muscovite mica will not deteriorate if they are kept dry in freezing conditions or are protected from freezing when wet.

Any sign off in respect of such remedial works shall acknowledge the risk inherent in retaining blockwork which could be susceptible to degradation if exposed to freeze thaw conditions"

Excerpt: I.S. 465 Table 6 - emphasis added

"Any sign off in respect of such remedial works shall acknowledge the risk inherent in retaining blockwork which could be susceptible to degradation if exposed to freeze thaw action"

Though the risk is acknowledged, the ownership of the risk remains unclear. It may be the registrant and their professional indemnity insurance that will be the first area of contact in the event of a second occurrence. In practice the only way to achieve certainty is to recommend Option1. I.S.:465 states –"Compliance with this Irish Standard does not of itself confer immunity from legal obligations". This would infer that there is no 'protection' for the registrant by following the protocols of the I.S. 465 rigorously.

The unintended consequence of not addressing the issue of remaining deleterious material is to increase the overall cost of the 'Defective Concrete Blocks Grant Scheme' as recommendations for Option 1 will predominate. This may be an important consideration if the scheme is widened to other geographic locations. Engineers Ireland provides suggestions on several adaptations to the scheme and the likely operational impacts to assist the Working Group with their analysis.

The Role of Pyrrhotite

The presence of pyrrhotite is proving significant and registrants are requesting additional expert opinions and research from geologists concerning the mechanism of reaction and deterioration. It is noted that a GSI Targeted research project – 'Pyrite/mica in construction materials' was commissioned in April 2021. This is an 18-month project and results may not be available until late 2022 at the earliest.

It is the opinion of the registrants that much more focused and coordinated detailed research and extending to pyrrhotite, must be undertaken to allow confidence in

proposed remedial works.¹ To expedite this Engineers Ireland suggests the Registrants, Geologists & Laboratory Practitioners who have already undertaken analysis and findings on behalf of their clients should be commissioned to complete this research. This will be the most efficient way of progressing this issue given the extensive analysis undertaken to date by these individuals. Of note is that the Department has paid for 90% of the costs of this analysis already through the grant aid scheme. Without expert advice in this area, the ability of engineers to accurately identify causation and the mechanism of deterioration will be compromised, negatively impacting remediation of dwellings in all but Option 1 remediations. Without this robust information from the research, some of the existing remediation work may be in vain for the remaining Options 2-5. The correct course of remedials cannot be accurately prescribed if the causal mineral/s and the exact mode of degradation is not yet certain.

In addition to the presence of pyrrhotite, the range and diversity of comments from registrants indicates that in the absence of underpinning research a pause in survey activity to allow time to reflect on the experience of field-based observations may be required. Some registrants observed low compressive strength on many inner leaf

¹ The incidence of pyrrhotite and crumbling of foundations in northeast USA (Connecticut) has been documented and researched. The outcomes of research in the USA occurrence of pyrrhotite may be of use to inform the Irish context. https://www.gao.gov/assets/gao-20-649.pdf

walls which is not caused by freeze-thaw action. This could also mean that blocks are inherently weak.

Similarly, it was pointed out that I.S. 465 suggests that;

'Ongoing maintenance and monitoring of the dwelling's structural condition would be required if Option3, Option 4 or Option 5 are implemented to assess if/when further structural action should be taken.'

The standard does not provide guidance on the nature of the ongoing monitoring regime, the party that bears the cost of ongoing monitoring and who is responsible for any subsequent remediation. Nor does it mention Option 2, which also leaves deleterious material within the structure.

Engineers Ireland requests that this guidance is provided as a matter of urgency so that registrants may continue to address homeowners' concerns efficiently and comprehensively.

Further Items for consideration by the I.S. 465 Standard Group as part of this Engineers Ireland Submission

1. Under I.S. 465 and S.I. No. 25/2020 ('Dwellings Damaged by the Use of Defective Concrete Blocks in Construction (Remediation) (Financial Assistance)
Regulations 2020'), applicability is restricted to specific geographic areas ('dwellings located in the administrative area of a relevant local authority', Co. Donegal and Co. Mayo). However, I.S. 465 registered engineers have identified damage similar to that set out in I.S. 465 and S.I. No. 25/2020 but in different geographic areas, particularly counties Clare, Limerick, and Tipperary. This suggests that the issue is not contained

solely within counties Donegal and Mayo and may have a larger impact in other areas of the country.

Engineers Ireland requests the extension of the application of the redress scheme to cover dwellings similarly affected in other counties so that those homeowners are not disadvantaged by the existing geographic restrictions. This may require amendments to I.S. 465 and SI 25 of 2020.

2. I.S. 465 registered engineers have surveyed many houses with serious cracking symptomatic of deleterious material in the concrete blocks that have had insulation installed in the cavity since the freezing conditions of 2010. Some registrants have observed that there is potential for the insulation to trap moisture, preventing the cavity from drying and thereby accelerating deterioration. There are concerns that the deployment of certain materials and processes in the retrofitting of dwellings may be causing unforeseen problems which may necessitate future remediation. There is a real danger that the retrofit pumping of wall cavities with insulation could have an unintended consequence of exacerbating the cracking of walls with blocks containing deleterious material.

Engineers Ireland requests technical guidance on processes and materials suitable to retrofitting in these circumstances.

- 3. Registrants are experiencing increasing delays in obtaining test results from laboratories due to the volume of cases and required analysis. Whereas in the past results were available in three weeks, over time this has extended to over three months. Engineers Ireland requests a review of the test requirements.
- 4. Registrants are overwhelmed with the volume of work required under the existing scheme. The entire remediation work/project management is Engineer-led which substantially increases the workload on the cohort of registrants and will

inevitably lead to delays. In similar projects other Practitioners (e.g., Architects) can fulfil design oversight roles where Option 1 demolition and rebuild applies.

Architects are considered competent persons to provide oversight for new builds on the Building Control (Amendment) Regulations but this the scheme is required to be Chartered Engineer led whereby for Options 1 remediations it is the registrants view that Architects are competent to provide this function.

Engineers Ireland requests that further consideration is given to professionals who could fulfil oversight roles and in doing so support the registrants in managing this quantum of work.

5. Some of the reports submitted by homeowners require further clarifications following queries from the local authority. In some cases this is causing significant delays and has resulted in non-recoverable costs for the engineers involved. One registrant has repeatedly sought, but not received, clarification that employees of the county council reviewing the engineers' reports have received training on the Defective Blocks Scheme and undertaken training on I.S.465.

Engineers Ireland recommends that local authority personnel reviewing applications are Chartered Engineers who have completed the I.S. 465 training.

- 6. To optimise the review process going forward, Engineers Ireland recommends consideration of a centralised application section administered by Central
- 7. Government rather than separate Local Authorities. The occurrence of process delay will increase should further counties be included in the redress scheme. A centralised approach would mitigate inconsistencies in the assessment of applications and the processing section would include qualified engineers trained under I.S. 465 to meet the competency requirements.

Similarly, a centralised Appeals Section would address appeals in a consistent manner.

- 8. Engineers Ireland recommends that regular workshops are held between Local Authority staff and assessing Engineers to discuss any issues arising which will mitigate requirements for further information requests with the goal of streamlining the application and assessment process.
- 9. There are reports that laboratory report results are being rejected based on photographs of properties, apparently without inspection of the property by a local authority representative. Engineers Ireland requests a review of local authority practices in reviewing applications from homeowners to ensure that they are in keeping with the principles of the scheme.
- 10. The completion of stages of the 'Defective Concrete Blocks Grant Scheme' are in practice not clean-cut, and considerable post survey administration work can be generated for the registrant.
- 11. The payment of contractors for remediation work using staged payments(stages 2 and 3) may need clarification particularly regarding payments to contractors. There is concern regarding retention of 25% by the Local Authority. This may only serve to inflate the cost as contractors may reflect this in their tender response and the perceived risk of any payment uncertainty may significantly increase tender prices.

Conclusion

The above submission provides a summary of the key experiences of registrants operating the 'Defective Concrete Blocks Grant Scheme' during the last year. Many of the registrants' observations to date may require further investigation and registrants can assist in this

work. If required, Engineers Ireland can facilitate meetings with registrants to expand on any of the topics.

Engineers Ireland recommends that a review of the operation of the scheme and the content of the I.S. 465 standard be undertaken to benefit from the most recent field-based experience. The registrants have suggested several improvements for the operation of the Defective Concrete Block Scheme and an analysis of the possible technical and operational impacts. This analysis is provided in the annex to this submission.

Engineers Ireland supports the need for a register of competent persons to support the scheme. In its current form, however, there is a high likelihood that individual professionals will discontinue any further involvement with the Scheme. Several registrants have already indicated their intention to withdraw from the scheme. In reality, on the ground, the Scheme has already stalled due to uncertainty, and it will draw to a halt very soon if the registrants' concerns are not addressed.

Damien Owens

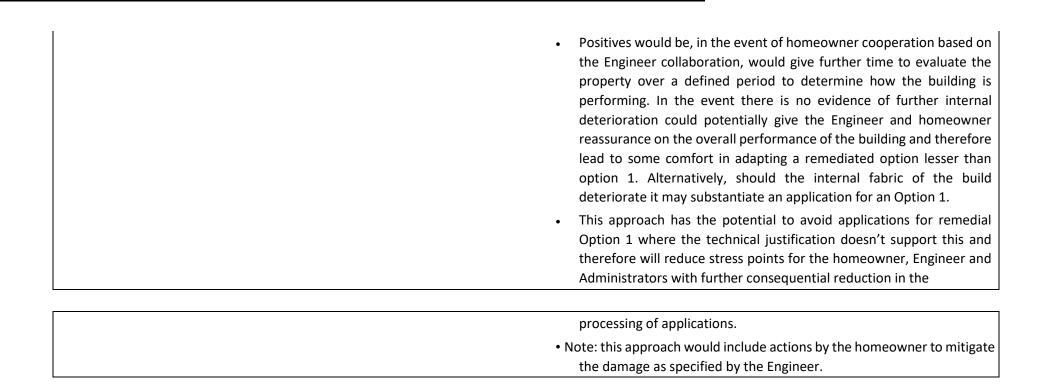
Registrar

21 September 2021

Annex 1: Operational Analysis of Potential Changes to the Defective Concrete Block Scheme.

	Description of Change	Potential Operational and Technical Implications
1	Retain existing scheme (No change)	 Many, if not all Chartered Engineers on the Engineers Ireland panel may conclude that it is not feasible to continue to provide services in the current scenario. Note there is a significant reduction already and it is Engineers Ireland reading of the situation amongst current Registrant's is that this is likely to continue. The current situation is seen as a "high risk" service.
		 Even where Engineers are willing to provide the service the cost and availability of PI insurance may become prohibitive.
		 Homeowners will continue to be uncomfortable with options other than complete demolition increasing pressure on Engineers and Local Authorities, and greatly increasing the cost to the Grant Scheme.
		 Homeowner issues with sale of properties, insurance etc would continue.
		 Ultimately if there are few, or no private sector engineers to provide the necessary services the continued operation of the Grant Scheme in its current form may become impossible.
2	Demolish all properties affected due to the ongoing uncertainty. Considering the uncertainty around the long-term impacts of these deleterious materials as outlined above, and the need for	 This may not be accepted as a rationale for Option 1 remedial schemes by the Local Authorities, leading to an ongoing series of further information requests or refusal of Stage 1 applications. If this was accepted as rationale for Option 1 then:
	further research and guidance in assessing affected properties, Engineers may take the view that they are unable to recommend any other Option than full demolition in these cases.	 Certainty and confidence of homeowners in the remedial solutions would be achieved in all cases.

		Homeowner ability to sell, mortgage and insure remediated properties – in tandem with a programme of education and
		 awareness in the financial services industry. Huge increase in potential cost to the State of remediation of affected properties. Logistical issues in the affected counties in relation to industry capacity, temporary accommodation etc.
3	Defer remediation of properties which do not otherwise meet technical justification for Option 1. In this scenario, the decision could be taken, either by individual engineer, by Registrant engineers collectively, or by the State in administering the grant scheme that there is insufficient information currently available to make sound robust recommendations without undue levels of potential liability, on properties which do not clearly have technical justification for demolition.	 Negative reaction from affected homeowners to being required to continue living in damaged and deteriorating properties. Homeowner issues with sale of properties, insurance etc would continue. Further delays in remediation properties which will continue to deteriorate would be likely to increase the final cost of the scheme. Issues with homeowners seeking to submit Option 1 applications regardless of technical justification would persist, or potentially increase, placing further pressure on assessing Chartered Engineers and on Local Authorities.



4 Defer remediation of properties which do not otherwise meet technical justification for Option 1 & allocation of an Interim State Bond.

In this scenario, the decision could be taken, either by individual Engineer, by Registrant Engineers collectively, or by the State in administering the grant scheme that there is insufficient information currently available to make sound robust recommendations without undue levels of potential liability, on properties which do not clearly have technical justification for demolition.

In this scenario the Stage 1 application would be completed and approved Stage 1 eligibility by the scheme administrators based on an option other than Option 1. The State would allocate a bond amount to cover future remediation costs should they occur. This sum would apply to the building rather than the applicant.

5 Provision of some form of State or Insurance Backed Guarantee for remediated properties.

In this scenario, pending further research and certainty regarding the technical issues outlined above, the State could directly, or through an underwritten insurance fund, provide a Structural Warranty for remediated properties.

The possible outcomes of this are:

- Negative reaction from affected homeowners to being required to continue living in damaged and deteriorating properties.
- Homeowner issues with sale of properties, insurance etc would continue.
- Further delays in remediation properties which will continue to deteriorate would be likely to increase the final cost of the scheme.
- Would allow the engineer and homeowner further time to assess how the building is performing over time with potential reduction in Option 1 applications being made and/or approved.
- The homeowner maybe in a position to sell the house if the bond applies to the building rather than the applicant.
- Note: an alternative approach to this would be the scheme provides funding for replacement of the outer leaf only and an allowance is made for fees for the Engineer to undertake a BCA at an agreed period as part of the monitoring process. A bond would then cover future further works should they be deemed necessary by the Engineer.
- Increased confidence among homeowners to accept technical recommendations other than Option 1.
- Improved homeowner ability to sell, mortgage and insure remediated properties in tandem with a programme of education and awareness in the financial services industry.
- Reduced liability for Engineers in relation to cases where due diligence and robust assessment has underpinned a

_		recommendation (inadequate or negligent assessment or services would obviously not be covered).
		 There may be a need for the State or Insurer to provide a technical resource or oversight to ensure recommended remedial schemes were suitable before warranty could be extended.
		 Reduction in homeowner preference or pressure for Option 1 remedial schemes where not necessary from a technical perspective could dramatically reduce the ultimate cost to the Grant Scheme as well as reducing cost to affected homeowners.
6	Provide an alternative approach to assessment of properties. If it is no longer feasible for private sector Engineers to provide services for assessment of affected properties, in may be necessary to revert to a centralised or state provided service model if the provision of a Grant Scheme is to be possible. This could be provided either by Engineers employed directly by the Department or Local Authorities, or by the State retaining the services of competent private sector engineers on the basis that indemnity was extended to retained service providers.	 It would remain possible to provide and administer a Grant Scheme. Homeowner issues with sale of properties, insurance etc would continue. Availability of Engineer resources either directly employed or on a consultancy basis are unknown. Homeowner confidence in service providers employed or provided by the State may be very low. Therefore, acceptance of recommendations other than Option 1 is likely to continue to be low, or potentially even lower than currently, due to mistrust of the Engineering service provider. May therefore be very unpopular with homeowners
		Iway therefore be very unpopular with homeowners

-end-

Appendix 3 – Final Homeowner Submission



Our Final DBWG Position

□ This document outlines the final, informed position of the Donegal Family representatives on the Defective Blocks Working Group (DBWG)
 □ This document is informed by:
 □ Extensive knowledge of the issues facing families affected by the Defective Blocks Scandal in Co. Donegal
 □ Significant research and understanding of the Defective Blocks Scheme and its inadequacies
 □ Significant concerns with the IS465 through liaising with families, local authority, Engineers Ireland and IS465 engineers
 □ Discussions of the Defective Blocks Working Group from June 2021-present
 □ An understanding of the Pyrite (2013) scheme and its workings afforded by expertise from the Housing Agency meetings
 □ Society of Chartered Surveyors (SCSI) costings for rebuilds in parallel with independent and local/regional QS expertise
 □ Data provided by Donegal County Council on existing applications to the scheme



100% Redress

Description

- 100% Redress of all costs to fix our homes in line with 2013 Pyrite Remediation Scheme
- □ Transition to a 100% oversight model led by Housing Agency for Homeowners unable to oversee their own projects
- Families cannot be expected to contribute 10% or VAT (we paid this on our first build) towards the cost of fixing our homes
- Retrospective payment to cover the costs of all works undertaken by homeowners up until now

Rationale

- Utilising the Society of Chartered Surveyors Ireland (SCSI) construction costs calculator with allowances for:
 - Mica/Pyrite project specific additional costs.
 - Provisions for reuse of fixtures.
 - Economies of Scale & Exclusion of "Betterment" costs.
- Costs inclusive of accommodation, engineering & lab testing costs, septic tanks where applicable, fixed fittings where damaged, removal of fixed fittings where reusable, groundworks & utility connections.

100% Redress

- * Reuse accommodated through 60% reduction in PC SUM allocation in SCSI calculator
- ** Economies of scale represented through a 1% reduction for every 215sq.ft above 1615sq.ft
- *** "Betterment" calculated at 2% reduction of total build cost.
- **** Scheme should be <u>updated</u> <u>annually</u> to reflect April updates to the SCSI calculator

Detached Property Size (sq.ft)	True Cost	Scheme contribution (%)	Houses in this size category (%)	
1700	€272,415	919	à	19%
2000	€309,144	809	6	10%
2500	€367,808	679	5	31%
3000	€423,283	58%	6	23%
3500	€475,569	529	5	12%
4000	€524,666	479	6	4%
>4000				1%

100% Redress

Notably:

Minister O' Brien's assertion that 'the existing scheme is working for the majority of affected families' can clearly be seen to be untrue.

Based on our figures and up-to-date submissions at DCC, only 19% of affected families live in homes where the DBS covers the proposed 90% of the overall costs and these are homes of 1700sqft or less.

As these figures show, the overwhelming majority of homes are in the 2500-3000sqft range (54%) where there is a significant shortfall (where the DBS only covers 58-67% of overall costs).

Detached Property Size (sq.ft)	True Cost	Scheme contribution (%)	Houses in this size category (%)	
1700	€272,415	91%	,	19%
2000	€309,144	80%		10%
2500	€367,808	67%		31%
3000	€423,283	58%	,	239
3500	€475,569	52%)	129
4000	€524,666	47%	,	49
>4000				1%

Homeowner Assurances

IS465 Certification

- No certification of remediation is currently embedded within the IS465 Standard (unlike Pyrite (2013). Both engineers & families are gravely concerned this exposes them professionally and personally to future issues emerging with the home.
- This needs to be rectified as a matter of urgency to facilitate a guarantee of works completed in order that properties can have insurance and future financing opportunities reinstated.

Government Guarantee

- A Government guarantee is mandatory, possibly in the form of a 40yr bond, inclusive of Opt 1 thru 5 remediation categories, to cover homeowners in the event their properties experience future structural deterioration due to deleterious materials within the property.
- A Government Bond, accompanied by a quality certification in IS465 will help restore asset value and provide lenders & insurance companies alike, the reassurances they need to engage with these homeowners.

Property Exclusions

Residential Properties

- Its is widely accepted principal private residential properties should be remediated as a priority
- All affected properties (rental and second homes) need immediate inclusion as these properties are also housing families
- Failure to include these properties will exponentially & negatively impact on an already dysfunctional rental sector in the region
- Donegal County Council have voiced concerns in terms of impact on their own social housing lists

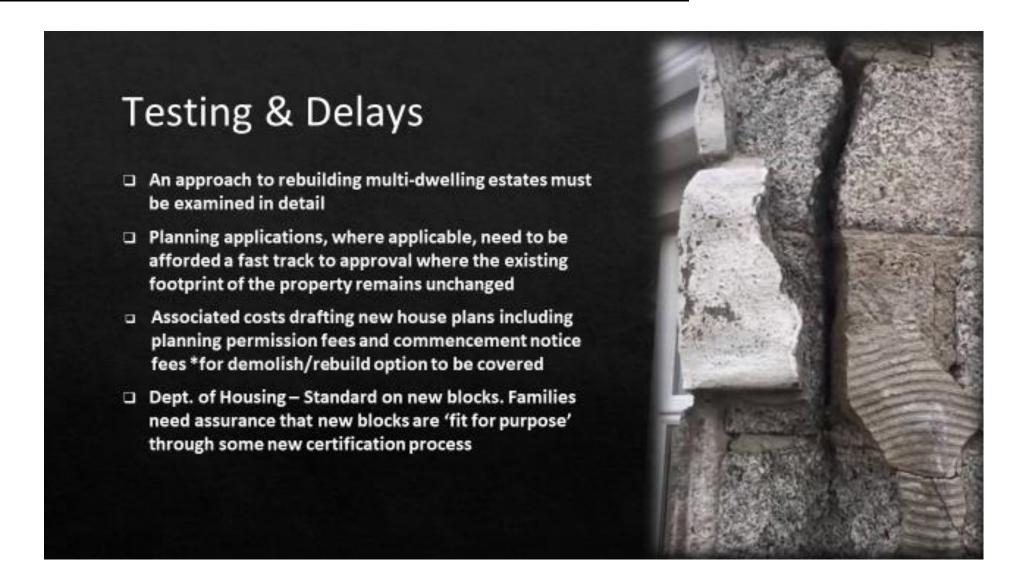
Other Exclusions

- Commercial, Community, & Farm Buildings need to be allowed access to the scheme when residential housing has been remediated
- These categories of buildings were also constructed in good faith, were bought and paid for as well as contributing the requisite VAT receipts to the public purse. These buildings are the lifeblood of our communities and are the only source of income for many affected families and must not be left behind
- Post Jan 2020 purchases in good faith post Jan 2020 purchases in good faith should be covered under the scheme (agreed more relevant to Mayo than Donegal where awareness was higher in Donegal)



Testing & Delays

- The majority of mica/pyrite victims are not in a position to gain entry to the scheme due to the prohibitive costs at stage 1 & stage 2 (approx 15k) of the DBS application process
- This issue needs urgent attention and a solution must be found where homeowners do not have to pay these exorbitant up-front costs to gain entry. Often the most disadvantaged families are left powerless
- Centralisation of testing locally should be implemented and overseen by the assigned public authority. An opportunity to exploit facilities at Letterkenny Institute of Technology should be given urgent consideration to expedite the testing process
- Efficiencies need to be identified & agreed for testing semi-detached/multi dwelling estates with an objective or expediting timeframes and reducing overall cost to the state



Local Authority Administration

- A formal and detailed explanation is required, with supporting evidence from DCC and MCC, when a decision is taken that is not in line with the engineer's recommendation to demolish
- Assurance that adequately trained personnel has been planned and budgeted for by DCC/MCC and will be enhanced as demand for the scheme is ramped up.
- A maximum time limit must be set and monitored through KPIs for each stage of the application process
- The existing payment process requires streamlining into a smooth and equitable online payment process of the grant in stages. The final proposed payment of 25% puts a significant financial pressure on contractors and will discourage them from participation
- Investigation into the administrative disparities between Mayo CC and Donegal CC with regards to option 1 under the scheme
- Traceability of blocks Implement a similar process as 'farm to fork' to clearly enable tracing of blocks to the manufacturer



Special Provisions

Requirements

- Homes which are condemned by an engineer and in danger of catastrophic failure should be fast-tracked through ALL stages of the scheme
- Support & priority for <u>vulnerable</u> homeowners to be given for the duration of the Application & Remedial works process
- Provision within the scheme Support Services for families with <u>special needs children and adults</u> who must vacate their homes for the duration of remedial works. This is particularly important for children on the Autistic Spectrum who find change very challenging
- Mental health support (walk in help as well as telephone support) for Mica/Pyrite affected families
- Special consideration for rebuilds adjacent to existing properties where space available - saving costs for temporary accommodation

Issues

- The Dept. of Housing has indicated approval for two facilitators for Donegal. However, the local authority has not progressed recruitment
- Families with members who have existing mental or physical disabilities, whose homes are modified to enhance their living conditions, need special consideration of their living requirements
- Funding for existing mental health services should be enhanced to increase capacity sufficiently to cover the additional requirements associated with Mica/Pyrite families

IS465 Protocol Issues

- Issues around the lack of certification/government assurances/issues with foundations have already been outlined in relation to IS465 and necessitates a change to the protocol
 Due to concerns raised by Engineers Ireland, IS465 should be adapted to include testing &, where necessary, remediation of Foundation Poured concrete & aggregate
 Revised engineering recommendations (changing to a different remediation option) during the scheme
- application process needs to be accommodated post stage 2 approval
- IS465 protocol was designed to address "The deleterious material in County Donegal [which] was primarily muscovite mica, while in County Mayo it was primarily reactive pyrite" (IS465:2018). The protocol does not take into account the impact of the combination of these deleterious materials as well as Pyrrhotite as a deleterious material which has also increasingly been found in the blocks of affected properties and as such undermines the remedial options outlined in the protocol
- ☐ Where the local authority has challenged the initial engineers submission to the scheme, there must be recourse to an independent appeals process and escalation to the Ombudsman

SEAI Grants

Requirement

- All homes under the scheme to be seamlessly upgraded under the SEAI Grant Scheme to fulfil our international obligation under the EU Paris agreement
- NOTE: SEAI approval has been approved for affected homeowners in late 2020. This was not an 'ask' of affected families during the DBWG and is not new or as a consequence of the talks

Query?

Clarity required if there is a legal requirement to adopt 2021 building regulations where a homeowner has changed the existing footprint of their property?

Public Inquiry

Requirement

- Establishment of a public Inquiry into the issue of defective concrete blocks and make recommendations to the Minister, inclusive of:
 - · how did this happen and who is accountable?
 - An apology for all homeowners for the devastating impact that this has had on their lives.
 - Compensation paid to all homeowners due to anxiety, stress, mental health deterioration, and inconvenience caused by this crisis.
 - An urgent review of DCC/MCC using the same defective blocks suppliers for Local Authority contracts INCLUDING the defective blocks scheme.

Rationale

- Living in a property which has been deemed to be of questionable structural integrity; coupled with water ingress, mould, and progressively deteriorating cracking, has put immeasurable pressure and stress on families. Those accountable for this crisis need to be identified and brought to justice.
- Families require a state apology and compensation for the conditions they have been forced to endure for over a decade in most cases.
- The Expert Panel concluded "what" was the cause of the structural defects identified in Donegal. Its terms of reference did not address "who" was responsible.

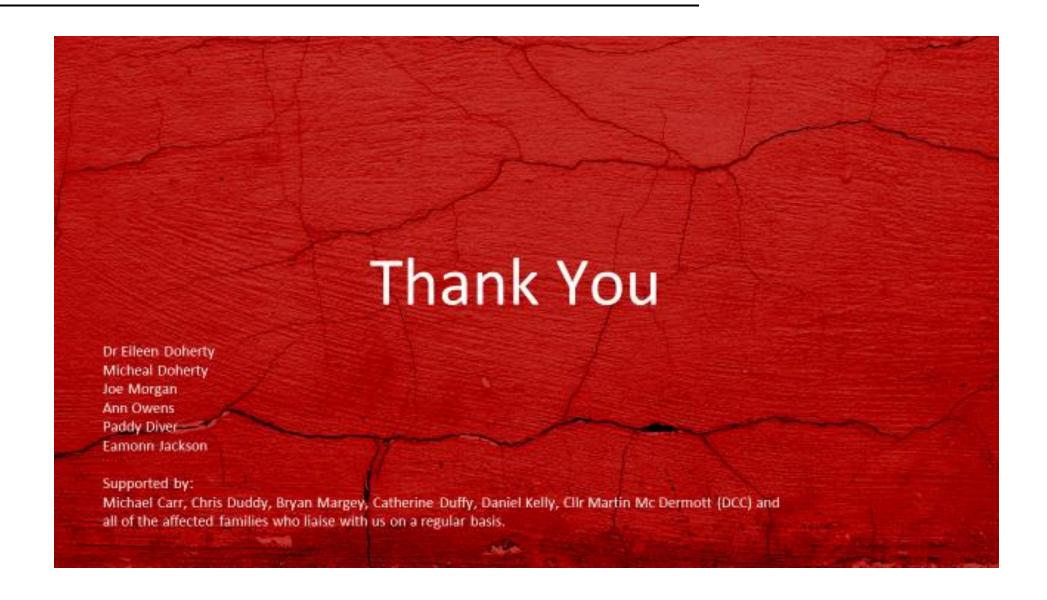
Existing Gaps ☐ Family Representatives on the Defective Blocks Working Group (DBWG) from Donegal and Mayo submitted a paper on July 1st outlining a comprehensive list of the inadequacies of the existing scheme On July 22nd a position paper from the Department of Housing, Local Government and Heritage was sent to families addressing a SMALL number of these requirements The majority of issues raised by Donegal and Mayo family representatives on July 1st remain unresolved A fully transparent document outlining the key homeowner requirements v the final DHLG position must be published following the conclusion of these talks ☐ These significant disparities have been outlined in the 'Homeowners Position on the talks' excel spreadsheet

Our Final DBWG Position

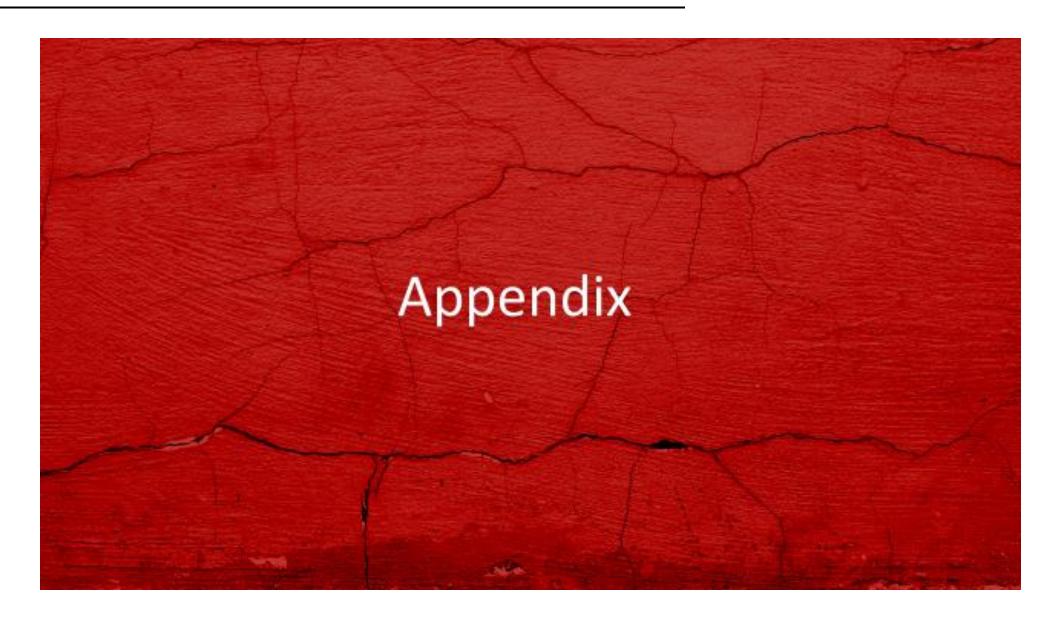
- Donegal family representatives have engaged in good faith with the DBWG since
 June 2021-present
- We have found the engagement to be continuously thwarted and stymied
- The talks have not been in a spirit of trying to find a solution to the crisis for families
- Instead they have been a constant reiteration by DoH representatives that 'this cannot cost any more to the State'
- This process has been very disappointing and difficult for family representatives (as is evident from Mayo family representatives leaving the talks)
- It is important to remember, we are all affected homeowners and our homes are collapsing around us

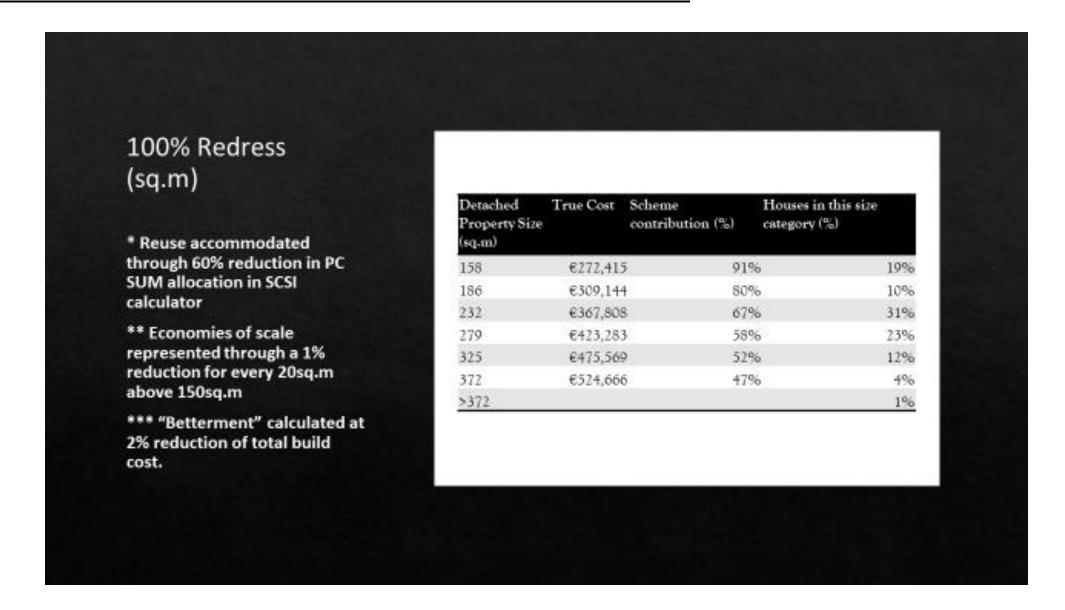
Our Final DBWG Position

- The State failed in its obligation to protect us as its citizens through lack of effective governance and adherence to legislation that was already in place (both Irish legislation and EU directives)
- We have a mandate to deliver a fair scheme for ALL affected homeowners
- We must honour this mandate and this remains our final position
- We are happy to answer any further questions on this document
- We respectfully ask that you proceed to submission of the final paper to Minister O'
 Brien expediently
- Families MUST be allowed the opportunity to rebuild their homes and their lives with immediate effect









Appendix 4 - Clarifications from DHLGH

Clarifications Regarding the Current DCB Scheme

- Current Grant Scheme It is important to note that Government has put in place a
 grant Scheme to support homeowners which has been in place since the 30th June,
 2020. Under the Scheme a grant of up to €247,500 is available to homeowners to rebuild their home.
- 2. Design of the Current Grant Scheme The Scheme was designed following the Expert Group Report, in consultation with numerous stakeholders including homeowners, Engineers Ireland and others.
- 3. Purpose of the Current Grant Scheme The purpose of the current grant scheme was to allow the State to make a voluntary Exchequer contribution, with the intent of assisting homeowners in great difficulty, to help them fund the remediation of damage to their homes. It is not a compensation or redress scheme and its primary aim was not to restore value or investment nor to fund the full cost of rebuilding damaged homes with upgrades to 2021 building standards but rather to ensure that homeowners could remain living in their homes. Homeowners therefore would be expected to pay for upgrades or improvements to their homes.

4. Re-build Costs - The Society of Chartered Surveyors Ireland (SCSI) publishes a 'Guide to House Rebuilding Costs for Insurance Purposes' annually for regions right across the country. Based on its latest Report the cost estimated by SCSI for the North West of the country is €138 per sq. ft. This covers the cost of building a completely new home, to 2021 building standards on new foundations.

Based on this costing it should be possible to build a 2,000 sq. ft. home to 2021 building standards for €276,000. The DCB Scheme deals with defective blockwork only and therefore new foundations are not encompassed. Furthermore, building standards have improved very significantly since the impacted homes were built and therefore newly built homes will be of a much higher standard.

5. Foundations – While potential issues in respect of foundations were raised at Group meetings, it is important to clarify that Engineers Ireland, in their report to the working group, did not make any reference to possible deficiencies in the existing foundations of DCB impacted homes. The Expert Group Report and the NSAI IS:465 standard, both make clear that the cause of damage in the affected homes is defective blockwork which has been caused by excessive amounts of pyrite or mica in the aggregate used to manufacture the said blocks

to manufacture the said blocks

- 6. Contents Removal and Refitting These have been clarified as allowable costs under the current scheme.
- Costs for Utility Disconnections/Re-connections These have been clarified as allowable costs under the current scheme.
- Re-instate Driveway/Garden These have been clarified as allowable costs under the current scheme.
- 9. Extension to Homes Extensions impacted by defective concrete blocks have been clarified as eligible under the current scheme notwithstanding the original home may not be impacted.
- 10. Post January 2020 Purchases These homes have been clarified as eligible under the current scheme where the homeowners did not know or could not have known that the home was impacted by DCB.

11. Comparison with the Pyrite Remediation Scheme were raised throughout the meetings of the Working Group. A brief comparison is therefore provided below:

Pyrite Remediation Scheme	Defective Concrete Blocks Grant Scheme
There is only 1 remediation option under PRS and this involves the removal of the floor slab (not the foundation)	There are 5 remediation options under DCB ranging from removal of outer leaf only to demolition to existing foundations and rebuild
The remediation works are specified, designed, procured and carried out by engineers and contractors employed by the State	The remediation works are specified, designed, procured and carried out by engineers and contractors employed by the homeowner
The scheme covers 100% of the costs of works specified but does not cover upgrades/improvements	The scheme covers 90% of the cost of each remediation option, subject to caps
Eligibility - One Person One Grant Provision	Eligibility – Homeowners Principal Private Residence Only
The scheme covers the cost of alternative accommodation, subject to caps	The scheme does not cover alternative accommodation costs
The average size of dwelling under PRB is 118 sq. mts./1,270 sq.ft	Homeowners on the Group advise that the average home size under DCB will be 2,400 sq.ft. with many homes between 3,000 – 4,000 sq. ft.
The works under PRS are relatively consistent across all homes and relatively quick to complete	Remediation works under DCB are bespoke to each of the estimated 6,600 homes impacted
The average cost of a remediation under PRS, including vat, fees etc. is €67,000	The current average cost of a remediation under DCB for privately owned homes is €209,000. Based on the homeowner final submission this would require grants increase to an average cost of €380,000 per home with some homes requiring up to €524,000
The overall cost to the exchequer is unlikely to exceed €400m	The overall cost to the exchequer is currently estimated at €1.4Bn. Based on the homeowners <u>final</u> submission the estimated costs of the changes requested could rise by €1.8Bn to €3.2Bn. This is on the basis of capital works and associated costs only and does not take account of potential costs for items sought such as; compensation for homeowners and inclusion of all non-residential buildings impacted.

Matters agreed by the working group to be put forward for consideration as improvements to the Scheme in the immediate term:

- Exempt Development Status Put in place regulations to confer exempt development status on like for like replacement of DCB homes
- 2. Financial Barrier to Scheme Entry Revise application processes so the homeowner is only required to submit a building condition assessment (likely cost €500-750), similar to the PRB scheme, and thereafter the Housing Agency, on behalf of Local Authorities takes on the assessment, testing and categorisation of homes and recommendation of the appropriate remediation option to the LA
- 3. Methodology for Grant Calculation To be based on a cost per square foot, discounted as appropriate, to exclude the cost of foundations, betterment, salvage etc. SCSI to be asked to determine the appropriate cost per square foot using their existing rebuild cost indicator for insurance purposes
- **4. Alternative Accommodation Costs** Agreed in principle but quantum yet agreed.
- 5. Septic Tanks Allow subject to an overall expenditure cap of €2,000
- **6. Expenditure Caps –** Increase the current expenditure caps by the agreed alternative accommodation costs for each of the 5 remediation options
- 7. State Guarantee Allow a second grant application for remediation options 2, 3, 4 and 5 if the original blockwork retained in the home after the first remediation subsequently requires replacement. The second grant option to go with the home rather than the homeowner
- 8. Percentage Grant Awarded Allow a 100% grant, subject to the revised expenditure caps, for each of the remediation options 2, 3, 4 and 5. These remediation options have some equivalence with the Pyrite Remediation Scheme as they involve repairs to the existing home. Option 1 involves complete demolition to foundation level and rebuild of the home.

General Comments

- 1. The Department would like to thank all of the members of the Working Group for their efforts in working together to build a shared understanding of the issues and challenges with the current scheme. The Department would also like to thank the Housing Agency, Engineers Ireland and SCSI for their help during this process.
- 2. The work of the Group was difficult at times given the scale of the issues involved and the impact on homeowners. Everyone's patience and understanding in bringing the work to a conclusion is appreciated.
- 3. The Working Group deliberations have ensured that the key issues and challenges being experienced by everyone involved with the current scheme have been aired and fully interrogated within the time available.
- 4. The key requests from homeowners covering: 100% Cost Recovery; Property Exclusions and a State Guarantee, have been clearly set out in the final homeowner submission in Appendix 2
- 5. Additional issues have been raised during the deliberations of the Group, including those by Engineers Ireland, that will require further technical and scientific analysis and this will take time. Consideration of any significant changes to the operation and administration of the Scheme will also require further analysis and consideration and consultation with various stakeholders
- 6. At the last meeting of the Group, Minister O'Brien signalled his intention to bring a memorandum to Government in the coming weeks following the necessary engagement with the relevant Departments and Ministers and the Attorney General. The "Final Homeowner Submission", this report and the Engineers Ireland submission will inform these discussions.

Principles Which Should Inform any Changes to the scheme

Timely

- There are ongoing risks associated with the most damaged homes so a short term solution to address this is important
- The work required to implement changes must be done in the most efficient and effective way
- Changes must at least minimise any disruption to homeowners who are currently within the grant process

Reasonable

- There must be reasonable, evidence based solutions
- The solutions must be justified from an engineering perspective
- The costs for undertaking remediation works are quantified
- There should be a safety net for homeowners undertaking remediation, as distinct from rebuild, should they require further work to be done on their home

Consistent

- Consistent in that each homeowner receives the same support for the same solution
- That there is consistency in each county and between counties
 - Engineers need to be clear on the criteria for assessing options and clear on the regulations that apply