

BRE Client Report

Guidance on PRC Repair Scheme - Prepared for Scottish Government to support Mortgage Lenders and Home Owners

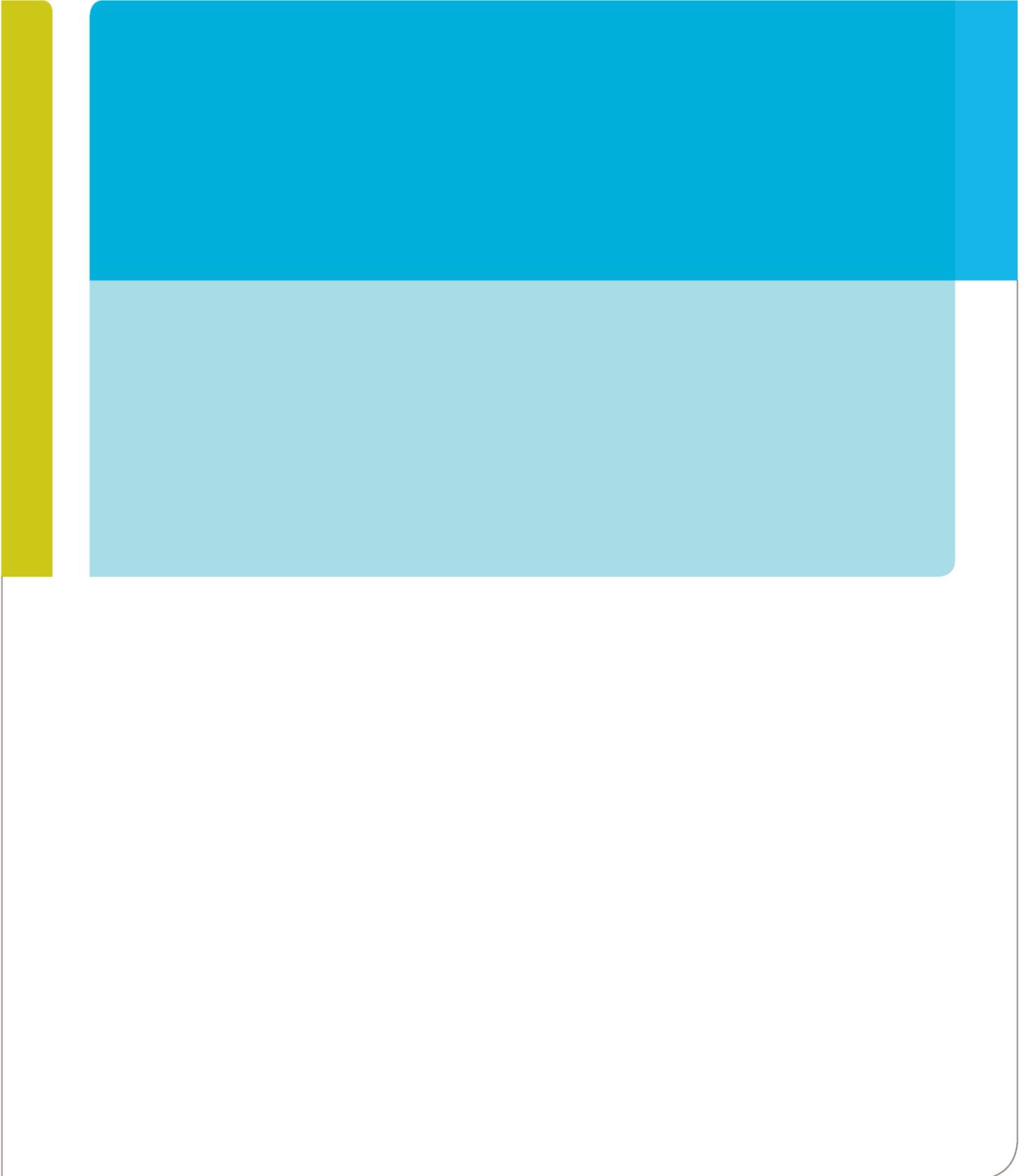
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Executive Summary

BRE has been involved in previous research on the issues affecting homes constructed using precast reinforced concrete (PRC) and concerns on their long-term structural durability. This work has included issues between the recognition of a property as originally “designated defective”, and the acceptance of the properties for securing a mortgage. Also included are the main stages and issues causing confusion to owners and lenders. BRE has been involved in discussions on each of the stages with the appropriate stakeholders and within the context of dealing with obstacles that may hinder progress towards mortgageability. The aim is to discuss the issues affecting market confidence in the properties, and to permit them to be assessed and considered as part of the general housing stock – ultimately to restore value to the owners’ investment.

The issues involved in the initial perception of problems, how these will affect the assessment of structural capacity, and consequently financial risk will be addressed. This will ensure that there is a clear route to follow that can be understood and accepted by lenders, homeowners, and those at each stage of upgrading the properties.

BRE’s approach to this work is following a work item structure as follows:

Work Item 1: Where are we and how did we get here?

Work Item 2: Scope of the problems; affected house types, and range of solutions currently being applied

Work Item 3: Wider industry issues

Work Item 4: New process map related to current context

Work Item 5: Final Report

This report summarises the findings related to Work Items 1-5 and is the final report for this project.

BRE has undertaken and completed the following tasks:

- A review of previous research and repair of PRC houses
- A review of the scope of associated problems and the range of repair solutions applied
- A review of the wider industry issues around lending, risk, and consistent repair
- The development of a Repair Scheme to manage the repair of PRC Homes
- Engagement and discussion with CML (UK Finance) on this proposed Repair Scheme and how it may be perceived by lenders.

The Council of Mortgage Lenders (CML) was merged from July 2017 into a new trade association, UK Finance. CML (UK Finance) have reviewed the Repair Scheme documentation and discussed this with BRE, both verbally, and through written communication. It is apparent that, **whilst recognising the potential for the Repair Scheme, mortgageability is a matter for lenders and valuers on a ‘case-by-case’ basis.**

The adoption and expansion of the Repair Scheme could see a range of PRC Home typologies having repair strategies in place, which may provide greater comfort to lenders around the risk of structural durability and/or failure. It is also clear that and **repair strategy, including those covered by the Repair Scheme, would need to be backed by a warranty to give further reassurance that the repair solutions are viable and robust.** This warranty could be provided by the contractor who has undertaken the works.



CML (UK Finance) also recommended that the Repair Scheme is circulated to RICS to raise awareness amongst surveyors on its existence and its potential to provide certified repair to PRC Homes.

In conclusion, the development of a Repair Scheme has been concluded, presented to, and discussed with UK Finance. This provides a structure to the repair of PRC Homes, which CML (UK Finance) are aware of.

The adoption and acceptance of the Repair Scheme would be supported by a UK-wide approach to the designation and repair of PRC Homes and this is a matter to consider as a follow-on to this project.



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Introduction

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Background

Issues associated with PRC Homes

The history of Non-traditional Housing in the UK and the specific types built in Scotland have been the focus of much discussion and debate relating to their long-term structural integrity and, consequently, mortgageability. The legislation under the Housing Defects Act 1984 collated various types of precast reinforced concrete (PRC) homes into a group and designated them as “defective”. Within the industry and particularly amongst mortgage lenders this became the main reference to the affected houses and other characteristics became secondary. The designation affected the availability of mortgages for any property classified as defective. The legislation was originally intended to assist in dealing with the problems and was accompanied with grant aid to assist with restoring the buildings to mortgageable status and hence normality in terms of the housing stock and the housing market.

There are a range of PRC homes within Scotland. In previous work completed by BRE, PRC homes were surveyed and catalogued; this information is summarised in Appendix A.

This approach was only partially successful with a limited number of properties subject to approved upgrading in Scotland under the grant aid scheme. Grant aid was not available for houses sold to tenants after the legislation came into force, providing that the local authority gave notice of the designation prior to the sale. The remaining properties were left stigmatised by the label “defective” and when the specific grant aid ended in 1995, there was no clear route to upgrading for many of these properties and no on-going entitlement to financial assistance leading to upgrading.

In the years since 1995 there has been a perception that many of these properties have been demolished. This may be partly due to a tendency for some Local Authorities to demolish whole estates when faced with redevelopment challenges in particular locations and therefore this type of wholesale demolition is inevitably high profile. Intermittent engagement by BRE and others with PRC homes has shown that there are still a significant number providing family homes across Scotland. Many owners have been left with properties that have low market value in relation to both location and accommodation because they are designated structurally defective irrespective of their current structural condition.

The generally assumed condition of the structures classed as defective, is that they are deteriorating due to problems with the concrete. This is likely to be true in general but provides a simplistic perspective on the designated properties. The rate of deterioration of the structural concrete varies from house type to house type and from house to house within each type and therefore the actual conditions of any specific property requires to be individually assessed at the time of any prospective works if decisions are to be based on relevant information. If significant deterioration does occur in the PRC components, the repair costs are likely to be greater than those expected for a traditionally built house of a similar shape and size. The rate of deterioration may however be minimal in some houses and therefore repair costs will be similar to those of a traditional house for any immediate problems. This will not be an upgrade but simply a repair as necessary. Alternatively, if the deterioration is severe, it could lead in extreme circumstances to demolition and rebuilding.

The majority of these houses have provided good homes for many occupants over the last sixty years (almost 100 years for some types) and from the various surveys on the properties, the majority are capable of continuing to provide reasonable accommodation for a significant period of time. Many of these houses have in recent years been externally insulated to deal with heat loss. This should have the additional benefit of reducing the risk of water penetration to the depth of the structural concrete and consequently reducing the risk of condensation on the concrete members. This reduces the risk of



corrosion of the embedded steel reinforcement and therefore reduces the consequential risk to the overall structural stability of the house. However, since no thermal upgrading is capable, under current perceptions, of improving the value of a designated property, designs tend to specify normal, minimum standards of weather protection and the opportunity of minimising the risk of deterioration by additional waterproofing features is generally lost.

A full mortgage term over the period since 1995 has generally been around 25 years but a figure of 60 years is generally the assumed term that mortgage lenders require from a certificate of long term stability. This is both difficult to assess and may conflict with an engineer's Indemnity insurance (i.e. what the engineer would be permitted to, or happy to, issue). The origin of the 60 years is not clear since although two mortgage terms is often mentioned as the basis of this figure, this would generally be 50 years and 60 years would require two long mortgage terms. Since the majority of these houses were built by local authorities, it is possible and more likely that the 60 years relates to two local authority investment terms.

PRC upgrades for the defective homes are assumed to provide the confidence required and this is accepted by CML (UK Finance) members but there is no direct relationship between the licensed upgrades and the 60 years. The upgrades simply remove any structural reliance on the precast concrete members and therefore restore the support for the loads to more traditional load paths. Lifetime in years is therefore deemed to be irrelevant with approved upgrades since the risk is assumed to be similar to that of any traditionally built house.

The real target in terms of stability therefore should be 'normal risk'. The 60 years has simply been discussed as a target figure and is generally accepted by CML (UK Finance) members. Since the 60 years is in most cases beyond what an engineer would certify, it is difficult to find any compatibility between these approaches. An engineer would regard 20 to 30 years as a reasonably stable domestic structure and where a longer term is necessary regular checks would generally be required. The author of this report is not aware of any domestic property that has been provided with a certificate of 60 years or any similar timespan. This question was also asked during discussions with the industry and no-one interviewed was able to confirm that certificates of this length are issued.

The structural condition of all of these houses is treated as worst case, consequently the financial risks are also assumed to be worst case and therefore actuarial assessments based on the assumed structural condition of the worst of these house-types will result in declaring all of them as a significant risk. In reality, the realised risk has been relatively small in relation to the number of properties and the thermal improvements too many of them has potentially reduced the risk further. This must, in turn, be offset by consideration of the progressive nature of the deterioration of the concrete which is in most of the houses likely to have reached a level where any reinforcement within the concrete is likely to be vulnerable to dampness. Persistent dampness would cause problems at a level not common in traditional build. There are indications however that in some of these properties the level of carbonation is relatively low.

It is important under the PRC system of upgrading to correctly label each house to ensure that the correct system is applied if mortgageability is one of the aims of the upgrading. This is problematic since there are similarities between different house types and there is an imprecision over the use of the names for each type potentially leading to confusion between the types. Where there is doubt over the correct classification of surveyed houses (i.e. which type of system build it belongs to) this may have significant implications for the survey responses but also for the system of approved upgrades appropriate to that particular type. All of the PRC houses carrying the "defective" labels suffer from the same qualifying defect, as follows:

"Ineffective protection of the embedded steel in the reinforced concrete loadbearing parts of the buildings"

This however describes the basic problem for each type rather than the full mechanism of failure. The affected properties may still fail in slightly different ways with respect to individual components. There is



however a level of similarity regarding the failure of individual concrete columns and the consequential effect on the structure.

The need to relate the upgrades to current building regulations requires the re-assessment of the existing approved upgrades to ensure that they meet not just the original structural requirements but also the current standards. The original system of assessment is no longer available to do this.

It has not been possible, under the terms of this project to compare the structural upgrades and to determine any level of commonality which would permit some level of interchangeability of upgrading systems across similar house types. Some aspects of the upgrades are likely to be applicable to other house types. This also raises the question of how this has been addressed in real situations in the past. Many of the house types have been built with variations due to the shortage of building materials when they were built. This demanded flexibility at the time and flexibility during an upgrade.

All of the PRC Homes approved upgrades require the original precast support system to be removed from the building or made redundant and a new support structure introduced reflecting the risks appropriate to traditional construction methods.

If therefore the PRC components, which vary between the different house types are to be made redundant and the new support system to restore a traditional approach and traditional levels of risk, there is potentially an opportunity for pooling some aspects of the details of upgrades for similar types of construction methods irrespective of the particular label.

This could not be assessed without the restoration of an agreed system of approval of upgrades since the PRC approval system has been discontinued and there is no universally accepted system currently in use.

Industry perceptions of PRC Homes

PRC Homes built across the UK to supplement the output of the traditional building industry were examined in the early 1980's following problems discovered in an Airey house. This process led to a range of PRC Homes being designated defective and consequently un-mortgageable without an approved upgrade.

The designation was followed by the introduction of the PRC Homes Scheme run by the National Housebuilding Council (NHBC) and this permitted designs for upgrading to be licenced. These designs were considered acceptable by the lenders as an effective way to restore mortgageability for affected properties. This scheme ended in 1995 and therefore there is no current system of approval for design of upgrading. The homes designated defective have provided reasonable housing for many families until the present day and many private homeowners who purchased one of these properties are confused over the disparity between their experience of the homes and the market value attributed to them as defective properties. The initial investigations that led to the designation were detailed and extensive and produced conclusions based on the potential for problems to develop over time. The end of the PRC Scheme however, which was intended to channel grants for upgrading the homes has left a gap between the effect of designation at that time and the situation now. There is no financial assistance available now to assist with upgrading and there is no clarity over how these homes can be restored to stability and mortgageability.

It was recommended that the legislation leading to designation in Scotland should be repealed. This legislation has since been passed by Scottish Government and will be enacted following the development of a robust repair scheme.

It must be noted that the repeal of the designation will not make the houses structurally sound but may open them up to the possibility of a full structural assessment. In addition, homeowners with affected properties that have not been upgraded are confused since their experience appears to indicate that their homes are of a comparable standard to those around but are being penalised by what seems to them to



be a historical labelling. This perception is not an accurate reflection on the condition of these properties but the homeowners have in the majority of cases little evidence of deterioration and no clear options on restoring value to their property.

With the effective demise of the PRC homes scheme for upgrading, a new system must be established to provide reasonable options for homeowners or the method of assessment must be opened up to permit qualified engineers to carry out assessments and design individual upgrades. This, in turn, will lead to opportunities to engage with CML (UK Finance) to allow the 'value' of PRC Homes to be recognised and supported through the transaction process.

Valuation criteria

CML (UK Finance) provides a 'Lenders Handbook' which a lender will use to inform its decision making in relation to mortgagability. Part 4 of the handbook describes the 'Valuation of the Property', and further describes the need to review the valuation report – most commonly completed by a professional surveyor.

The surveyor (valuer) will usually look at the same specifics when judging a property, such as:

- Age
- Size
- Wear and tear
- Structural improvement
- Fittings
- Room layout
- Electrics/heating
- Extras (e.g. double glazing)
- Storage space.

The surveyor undertakes a detailed inspection, during which he assesses every room, including additional external structures - nothing is overlooked. He or she takes measurements and photos throughout the property to help him reach an eventual decision.

There are a number of different types of survey that can be conducted as follows:

Condition Report

This is the most basic type of survey and is undertaken to:

- complement the mortgage valuation
- provide 'traffic light' indications as to the state of various parts of the property. Green means everything is ok, orange is some cause for concern, and red means serious repairs are vital
- provides you with a summary of risks to the building
- does not include any advice nor a valuation

Home Buyers Report

This is a more detailed survey:



- It will identify any *obvious* major problems – *obvious* rot, subsidence, etc.
- It will include a valuation and an insurance reinstatement value

Home Buyers Reports can include caveats and statements designed to cover issues that have not been fully investigated or detailed.

Building Survey

Building surveys are expensive, but can be worth the investment:

- They are extensive surveys and you will be given a detailed report at the end
- Building surveys are valuable for old, unusual, listed, timber framed, or thatched properties
- It includes advice on repairs, and provides estimated timings and costs
- Unless specified, it probably will not include an insurance reinstatement value estimate, or a market valuation.

Perceived risk of PRC Homes

Structural assessments are common for all types of buildings, occasionally at maintenance intervals and generally necessary when new work is proposed. The accepted approach across the industry for buildings that may have structural problems is to commission a structural survey by an engineer (civil or structural). These engineers should carry the appropriate indemnity insurance to cover this type of assessment, and produce a remedial design where required. A full structural survey is in most situations regarded as an appropriate approach to establishing a basis for predicting long term stability for buildings and with a remedial design, generally accepted as a basis for mortgage ability for domestic properties.

The defective PRC homes however are an exception to this approach since at present the defective status currently overrules the engineers report in terms of mortgage ability. The mortgage industries' response to the perception of increased risk for these PRC houses is based on the designation, which is in turn a response to the historical situation. For the majority of lenders; the defective status (and the assumed implication of failure in the medium to long term) cannot be modified by an engineer's report. The major route to upgrading is through a PRC Homes approved upgrade licence. This can however only be applied to homes for which an approved upgrade has been developed under the scheme and there are no approved upgrades for around 50% of the affected house types built in Scotland. Houses for which no system of upgrading was designed and approved by PRC Homes when the scheme was in operation (generally 1985 – 1995) have no recourse to this approach and are denied the normal course of utilising the expertise and credibility of a chartered engineer to design and supervise the upgrade. Other systems of upgrading have been developed but the acceptance of these by lenders appears to vary depending on the prevailing financial climate at the time.

The side-lining of the normal engineers report has resulted, for many properties in a tendency to undertake less precise surveys, sometimes restricted to visual assessments, to determine if any features are currently dangerous and require urgent treatment. Assessment of long term stability and mortgage ability therefore may be only partially addressed since even a report stating that there are no obvious problems would have little effect and be unable to supersede the effect of the defective designation for lenders. Laboratory assessment of concrete quality has therefore often been ignored in the brief reports even when an extensive visual assessment has occurred.

Since the demise in 1995 of the PRC Homes upgrade approval scheme, at which time only some of the affected house types had approved schemes for upgrading, there has been no recognised method for



approving upgrading schemes. Therefore, for any house type that did not have an approved licence for upgrading at that stage there is no currently recognised path to effective upgrading and the designation acts as a barrier.

The long-term durability of PRC Homes have impacted on the valuation and mortgagability of these properties. CML (UK Finance) have been consistent in their comments in relation to previously defined 'defective homes', which In their submission to a consultation on this matter from the Scottish Government, CML (UK Finance) stated that they did not believe the removal of the designation "defective" from Precast Reinforced Concrete (PRC) homes in Scotland would improve the availability of mortgages on these types of property. CML (UK Finance) went on to state that the stigma attached to these properties was fairly deep rooted and lenders would still adopt a cautious attitude to them and unless approved repairs have been carried out to them they will still be regarded as not being suitable as security.

CML (UK Finance) has stated that "The present proposal has also the ability to create a confusing picture so far as our members are concerned. The majority of lenders operate on a UK wide basis and many of the PRC house types exist in both Scotland and England and Wales. It will raise questions going forward of why in Scotland these house types are not considered defective but in England and Wales they are.

The development of new approved repair schemes in conjunction with the Buildings Research Establishment is in our view more likely to bring long term benefits in relation to PRC homes although it cannot be guaranteed that such schemes will meet all aspects of every lenders' individual lending policies."



Basic process map for PRC Repair Scheme

The approved designs under the PRC Homes scheme provided a recognised way to deal with the problems covered by designation. The licences granted to scheme designers and contractors demonstrating their knowledge and understanding of the forms of construction and proving their methodology for upgrading formed an option for householder's to restore their properties with the approval of lenders. The scheme also limited approved upgrading to those demonstrating their experience and holding a licence for the work. This is reasonable since the development of a scheme requires an investment in the design and detailing of the work.

Only some of the house types designated defective had licences for upgrading under the PRC Homes scheme. The ending of the scheme means that the panel approving upgrade schemes is no longer operating and therefore additional schemes for house types not already covered are no longer possible by this route. The companies holding the existing licences will presumably still retain the rights to the licence.

However, due to the infrequency of upgrades in the last twenty years, these companies may have few staff, if any, familiar with the designs or techniques for upgrading. In addition, some of these companies may no longer be operating. These factors will further diminish the options for householders and, if a company that is no longer operating held e.g. the only licence for the upgrade to a specific type of house, then it may not currently be possible to achieve a PRC Homes approved upgrade.

It must be recognised that restricting the assessment of these house types by civil and structural engineers can only be considered reasonable provided another approval scheme is current and will provide options for these homeowners.

The approved licences are now considered dated and would require to be re-assessed structurally and against the current building regulations to ensure that they are suitable for upgrading properties in the current market and to current regulations. There is no operating scheme which meets those requirements across the market and a replacement for the PRC Homes approach is urgently required. Following discussions between CML (UK Finance) and BRE, details of a potential scheme for approving upgrades has been discussed. This scheme is currently in preparation and with a structure in place for assessment of new approaches to upgrading, could potentially address the needs of many of these houses for a route through the current impasse.

The process diagram, shown in Figure 1, outlines the approach intended for this scheme and further development of this scheme would provide an up-to-date supplement or replacement for approved upgrading for the affected properties.

This process map has been developed into a documented scheme by BRE's certification body, BRE Global. The content of this scheme are described in the following section of this report.

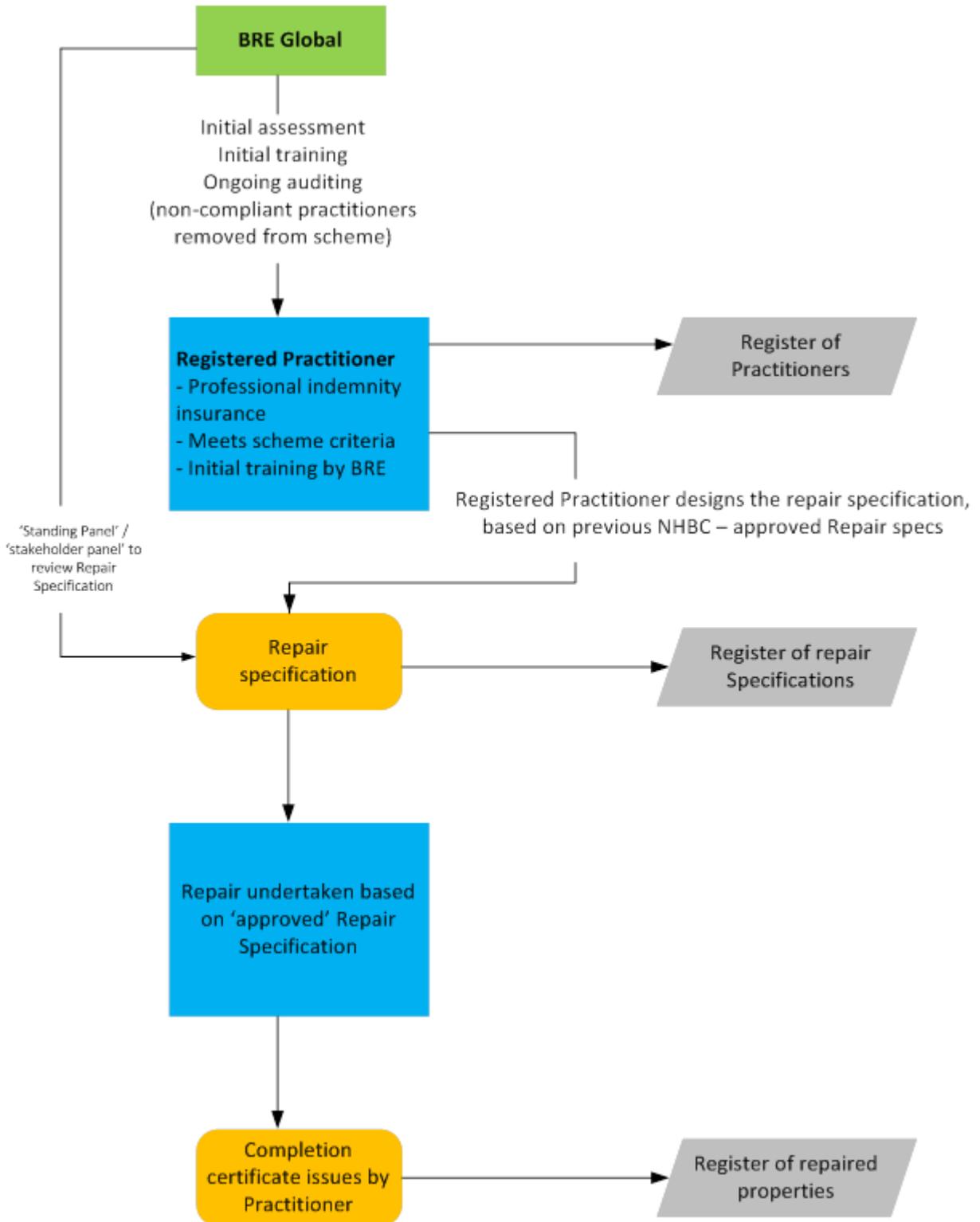


Figure 1. Initial process diagram.



PRC Homes Repair Scheme documentation

The BRE Global Certification PRC Homes Repair Scheme (the Scheme) is intended to provide an owner of a Pre-cast Reinforced Concrete (PRC) Home with a means to demonstrate structural integrity of the home to mortgage lenders and home insurers.

Background to the Repair Scheme

The Scheme builds on the system operated by a subsidiary of NHBC PRC Homes Ltd (a subsidiary of the National House Building Council (NHBC) between 1985 and 1996 to license repair scheme for housing systems designated as defective under the 1984 housing defects legislation and incorporated into the Housing Act of 1985.

The primary source of information for developing individual repair specifications was contained in a number of reports prepared by BRE following on-site investigation and analysis of the majority of systems.

The outcome was that a series of prescriptive repair specifications was established, one for each system, and licences to implement the repair specifications were issued to designers able to demonstrate competence in the application of the repairs to individual dwellings.

Approved parties issued certifications of completion which were acceptable to lenders and insurers for each dwelling.

In the intervening years a large number of dwellings have been rehabilitated using this approach but the original repair specifications have not been updated to account for changes in construction practice or building regulations and the lack of a central register of completion certificates has resulted in difficulties for sale and resale of properties where certificates have been lost.

The original repair specifications were wholly prescriptive and experience has shown that in some instances the implementation of a full repair in every case has led to unnecessary work being carried out. The development of alternative cladding products allows the possibility of including alternatives to brickwork (as previously universally required) to be incorporated in repair specifications.

The Scheme therefore reintroduces a formal means of preparing and registering Certificates that are acceptable to Mortgage Lenders and Insurers. Scheme is more flexible than its predecessor in that it allows for the approval of System Repair Specifications which permit stated variations in the extent of work to be carried out and a choice of external finishes.

Repair scheme process

The Scheme has two key means of ensuring that repair works should be of a suitable standard to meet mortgage lenders' and insurers' requirements, as follows:

Registered Practitioners who have demonstrated to the Scheme Manager that they have the qualifications and experience necessary to design and administer Approved Repair Specifications and subsequently confirm that these have been carried out to an acceptable standard

Evaluated Specifications which can only be prepared, modified and used by a Registered Practitioner if they (the Specifications) have been formally registered following an approval assessment by the Scheme Manager.

The methodology ensures that structural repairs to Pre-cast Concrete Homes are of a suitable quality to meet the requirements of mortgage lenders and insurers and meet current building regulations, at the



same time allowing enough flexibility to ensure that repairs on any particular property are appropriate in the circumstances.

There are three main elements to the Scheme:

- The Register of Practitioners
- The Register of PRC Home System Repair Specifications (Register of Specifications)
- The Register of Properties that have been confirmed as satisfactory by Registered Practitioners under the Scheme (Register of Properties).

These Registers are maintained by BRE (the Scheme Manager) and published on The Scheme web-site <http://www.breglobalistings.com/search/scheme.jsp?id=4>

To be included on the Register of Practitioners, an individual (not a company) must demonstrate to the Scheme Manager that they are competent and have appropriate qualifications, experience and professional indemnity insurance cover. This will be audited by the Scheme Manager on an annual basis and take into account their previous year's activities.

Only designs prepared by a Registered Practitioner can be considered by the Scheme Manager for inclusion on the Register of Specifications. The Registered Practitioner is automatically registered to use the specification that they have registered but must obtain additional agreement to use other registered specifications.

The property to be repaired is registered on the 'Register of Properties' at commencement of the works.

A 'Certificate of Structural Repair' is prepared by the 'Registered Practitioner'. The Certificate only becomes valid when formally registered and published on the 'Register of Properties'.

Applications by Registered Practitioners

The following approach has been developed relating to applications by registered practitioners:

- Applications must be in writing using paperwork provided by BRE
- If the requested information has not been provided in the detail specified on the application form the Scheme Manager reserves the right to make additional charges
- If an application is rejected then there is recourse to an Appeals procedure.

Certificates

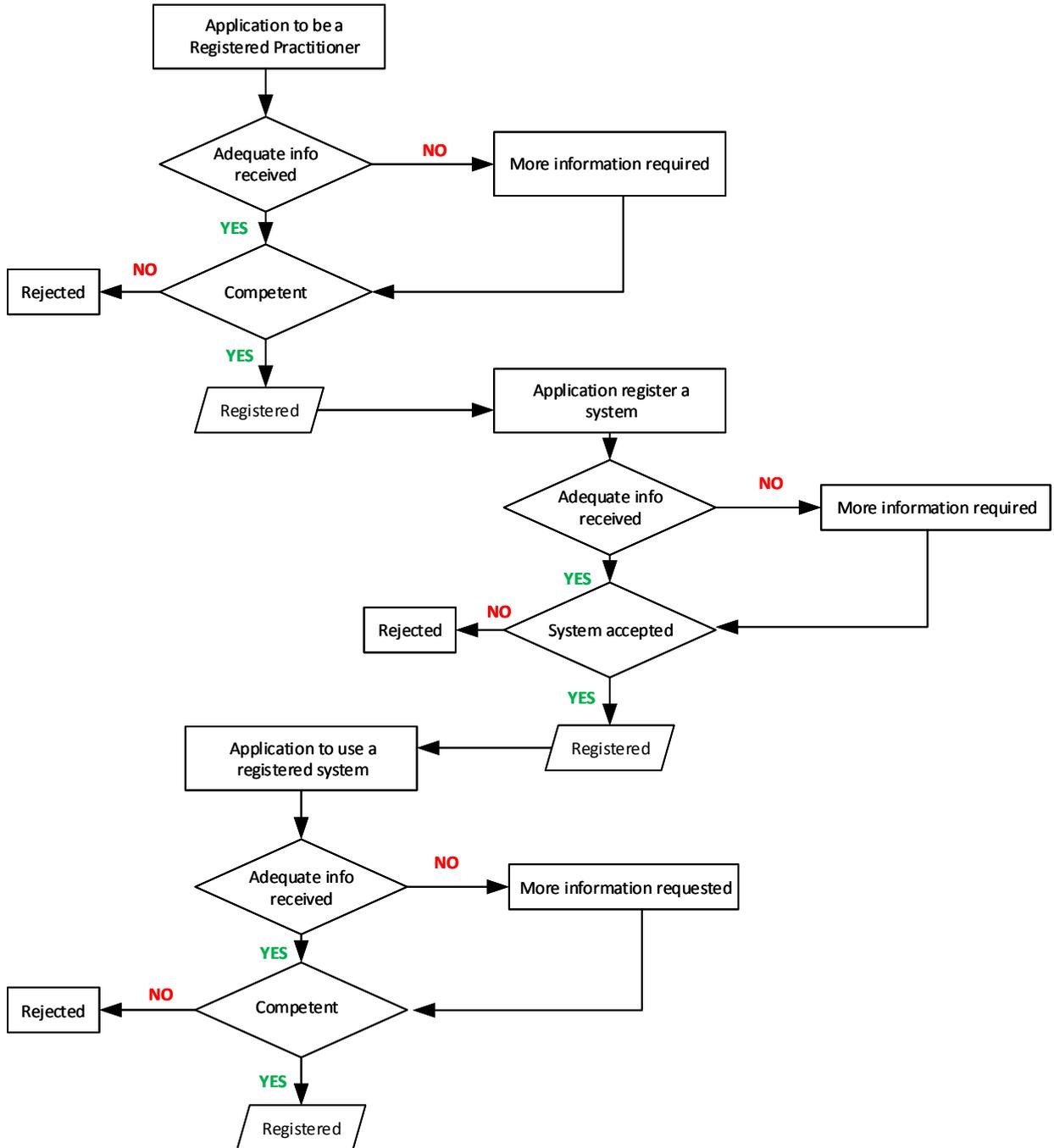
Certificates of Structural Repair, which should be acceptable to Mortgage Lenders and Insurers, will be issued by the Registered Practitioner. The Certificate is only valid if it has been registered on the Register of Properties by the Scheme Manager and the Registration number is included on the Certificate.

The issue of a validated Certificate confirms that in the opinion of the Registered Practitioner, the PRC Homes repairs have been carried out by a competent contractor to an Evaluated Specification to a satisfactory standard. A satisfactory standard means that the Evaluated Specification has been implemented correctly.

Guidance for Homeowners has also been developed and this is provided in Appendix B.

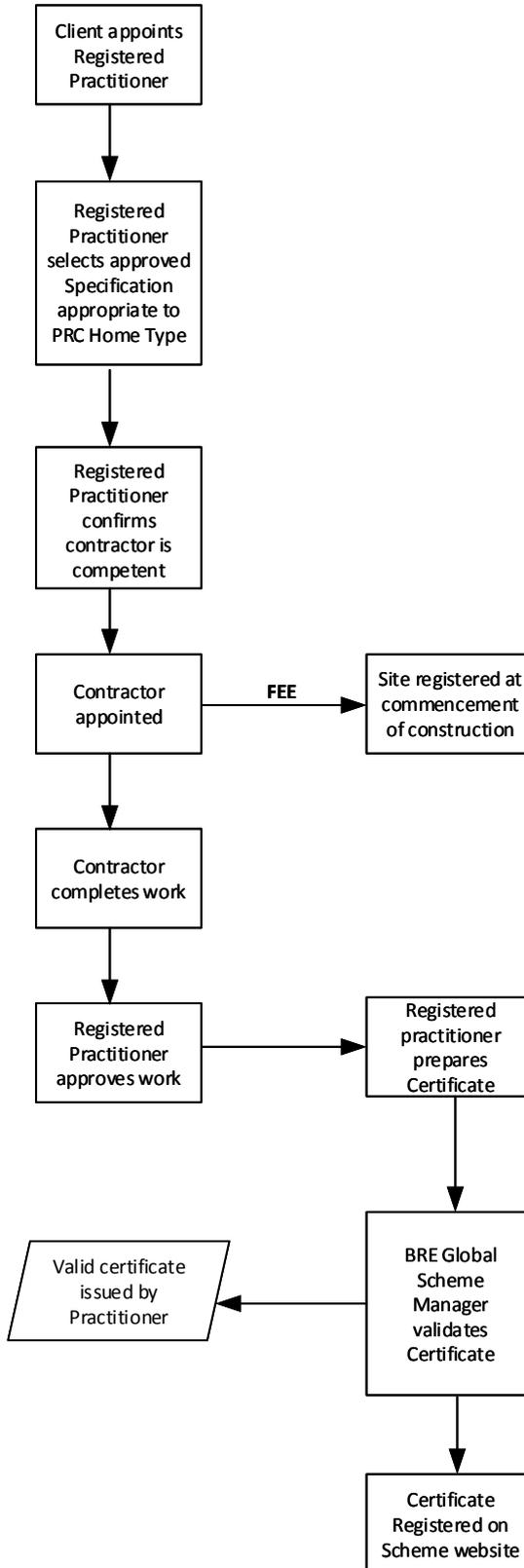


Part A – Practitioner Registration





Part B – Repair Registration





Discussion with CML (UK Finance)

BRE has been discussing the proposed PRC Homes Repair Scheme with the CML (UK Finance). This dialogue has involved BRE providing information to UK Finance on the proposed Repair Scheme and seeking their comment and feedback on it.

The Repair Scheme documentation was circulated the scheme documents to the CML (UK Finance) Valuation panel. It is primarily made up of lenders in the property risk/valuation departments within lenders. The panel's members make up a significant majority of the market share of mortgage lending in the UK.

This activity has been ongoing over the summer and autumn months of 2017 and has resulted in the following feedback from CML (UK Finance):

- As a general point, CML (UK Finance) does not endorse individual schemes or provide a blanket acceptance of such schemes on behalf of industry
- A decision as to whether to lend on a property which has been, or is subject to, repair under such a scheme will be made by individual lenders, on a case by case basis and will depend on a range of considerations
- Specific to the Repair Scheme, CML (UK Finance) noted that there did not appear to be any consideration of the need for the property to have a form of warranty in place, or indeed the need for a form of warranty to sit behind the scheme
- It was noted that the scheme as it currently stands, covers three types of designated defective type properties, but there are numerous other types.

Further discussion points suggested that it would be useful to advise RICS Scotland of the scheme, as it may be that their member may come across the scheme when they are being asked to value property for mortgage lending purposes.

It is clear that CML (UK Finance) recognise the proposed Repair Scheme but are unable (within their constitution) to endorse any single Scheme. Furthermore, it is apparent that PRC Homes exist throughout the UK, and a 'UK-wide' designation and Repair Scheme would provide greater levels of consistency for lenders looking at properties in different parts of the UK.



Conclusion and recommendations

BRE has been involved in previous research on the issues affecting homes constructed using precast reinforced concrete (PRC) and concerns on their long-term structural durability. This work has included issues between the recognition of a property as originally “designated defective”, and the acceptance of the properties for securing a mortgage. Also included are the main stages and issues causing confusion to owners and lenders. BRE has been involved in discussions on each of the stages with the appropriate stakeholders and within the context of dealing with obstacles that may hinder progress towards mortgagability. The aim is to discuss the issues affecting market confidence in the properties, and to permit them to be assessed and considered as part of the general housing stock – ultimately to restore value to the owners’ investment.

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- Engagement and discussion with CML (UK Finance) on this proposed Repair Scheme and how it may be perceived by lenders.

CML (UK Finance) have reviewed the Repair Scheme documentation and discussed this with BRE, both verbally, and through written communication. It is apparent that, whilst recognising the potential for the Repair Scheme, mortgagability is a matter for lenders and valuers on a ‘case-by-case’ basis.

The adoption and expansion of the Repair Scheme could see a range of PRC Home typologies having repair strategies in place, which may provide greater comfort to lenders around the risk of structural durability and/or failure. It is also clear that and repair strategy, including those covered by the Repair Scheme, would need to be backed by a warranty to give further reassurance that the repair solutions are viable and robust. This warranty could be provided by the contractor who has undertaken the works.

CML (UK Finance) also recommended that the Repair Scheme is circulated to RICS to raise awareness amongst surveyors on its existence and its potential to provide certified repair to PRC Homes.

In conclusion, the development of a Repair Scheme has been concluded, presented to, and discussed with CML (UK Finance). This provides a structure to the repair of PRC Homes, which UK Finance are aware of.

The adoption and acceptance of the Repair Scheme would be supported by a UK-wide approach to the designation and repair of PRC Homes and this is a matter to consider as a follow-on to this project.



Appendix A Numerical survey of PRC Homes

All local Authorities and some housing associations were contacted to ask about the number of affected properties owned by them. All local authorities responded and provided figures but in some cases precise figures were unknown (the affected houses are generally regarded simply as stock units and would not be identified as non-traditional unless they were sold), and therefore only approximate figures could be provided for some authorities.

The ownership of homes has been affected by stock transfers between the local authorities and housing associations, and therefore a risk of double counting in the feedback was recognised. The returns were scrutinised and compared with historical records on house numbers. Where significant discrepancies were noted, the figures were re-assessed to check for inaccuracies and to minimise the likelihood of this occurring. Where discrepancies between the older figures and the current feedback were deemed significant (i.e. more than ten), the respondents were contacted again to confirm their figures in light of the conflicting numbers. This rechecking should have removed any of the larger discrepancies but is unlikely to have identified all examples. Since the figures obtained from the survey results are to be used as an indication of numbers across Scotland, these are accepted as broadly accurate and provide a good approximation of the distribution of PRC homes across Scotland.

In summary, the numbers of defective PRC homes currently identified from responses is 10,433. This is in comparison to the figure of 15,220 that was recorded in 1987. The distribution of PRC home 'types' is presented below:

Construction type	Numbers declared in 1987	Numbers reported in 2016
Ayrshire County Council (Lindsay)	718	611
Blackburn Orlit	420	1312+
Boot	1046	1046
Dorran House	400	540
Myton-Clyde	1038	730
Orlit	6207	3097
Tarran	273	398
Tarran-Clyde	226	-
Tee Beam	393	347
Unitroy	182	31



Whitson-Fairhurst	3049	2178+
Winget	1268	990

The values shown in this table show that the 1987 figures do not always match the current responses. Where the latest figures are less than the originals, this is understandable. It is more difficult to explain examples where the numbers have risen – this may point to inaccuracies in the data collection and/or information held by the local authority.



Appendix B Guidance for Homeowners

Guidance for home owners

The BRE Global Certification PRC Homes Repair Scheme (The Scheme) is intended to provide an owner of a Pre-cast Reinforced Concrete (PRC) Home with a means to demonstrate structural integrity of the home to mortgage lenders and home insurers.

The Scheme

The Scheme has two key means of ensuring that repair works should be of a suitable standard to meet mortgage lenders' and insurers' requirements.

- Suitably qualified Registered Practitioners
- Registered PRC Home Repair Specifications

A mortgage company or insurer can turn down an application for many reasons - please check with your mortgage provider or insurer first that they are likely to accept the BRE Global Certificate of Structural Repair.

The Registered Practitioner will decide on the most appropriate repair for your home, arrange for the work to be done by a competent contractor, and issue you with a BRE Global Certificate of Structural Repair that should be recognised by mortgage lenders and insurers to say that the work has been carried out to an acceptable standard.

There are three main elements to the Scheme:

- The Register of Practitioners
- The Register of PRC Home System Repair Specifications (Register of Specifications)
- The Register of Properties that have been confirmed as satisfactory by Registered Practitioners under the Scheme (Register of Properties).

These Registers are maintained by BRE Global (the Scheme Managers) and published on the PRC Homes Structural Repair Scheme web-site which can be found at:

www.bregloballistings.com/search/scheme.jsp?id=4

The consultant designing the repair must be registered on the PRC Homes Repair Scheme as a Registered Practitioner and they must use a registered PRC Home System Repair Specification.

The Certificate of Structural Repair must be given a Registration number to show that it is on The Register of Repaired Properties.

How do I find a Registered Practitioner?

There is a list of Registered Practitioners and their contact details which can be found at:

<http://www.bregloballistings.com/search/scheme.jsp?id=4>



The conditions of registering a repaired property are that:

The address of your property will be listed on the public 'List of Registered PRC Home Repair Scheme Properties' and will need to be entered before the repair work starts and it will remain on the list as long as the Certificate is valid. The Certificate will not be valid if the property does not appear on the list.

The Registered Practitioner acts as your advisor but can only give you a BRE Global Certificate of Structural Repair if the repair method is already included the Register of Approved Scheme Repair Specifications and is satisfied that the work has been carried out to an acceptable standard.

The Registered Practitioner will guide you through the process and answer any questions that you may have.

There is a complaints procedure if you find that you are not satisfied. Please contact the Scheme Manager by email at prchomesrepairs@bre.co.uk