Would the Republic of Ireland Benefit From a Top Down Local Authority Lead Approach to Building Regulation Control and Is the Current System Unfit for Purpose in Respect of Dwellings Where BCAR Does Not Apply or Can Be Opted Out Of?

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Would the Republic of Ireland benefit from a top down Local Authority lead approach to Building Regulation Control and is the current system unfit for purpose in respect of dwellings where BCAR does not apply or can be opted out of?

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This Thesis is submitted in partial fulfilment of the requirements of the Masters in Quantity Surveying (DT107) of the Dublin Institute of Technology

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Abstract

This research is an exploratory study to ascertain if there is a requirement throughout the Republic of Ireland to introduce a top-down Local Authority lead approach to Building Regulation Control similar to that currently utilised throughout the United Kingdom and Northern Ireland.

The system of Building Regulation Control that is in operation throughout the United Kingdom and Northern Ireland places on a requirement for Building Regulation Permission as well as Planning Permission and requires inspection of 100% of projects by either Local Authority Building Control or Approved Inspectors.

This dissertation document also focusses on the dwelling types that Building Control (Amendment) Regulations (2013) either does not apply to or can be opted out of that are listed below:

- Domestic extensions that are less than 40m2 in size
- New single dwellings
- Domestic extensions greater than or equal to 40m2

These dwelling types revert to the pre-BCAR system of self-certification and reliance on Opinions of Compliance whose combined laissez-faire approach to Building Regulation Control lead to such high profile fiascos such as Priory Hall and Longboat Quay. Such examples lead to the introduction of the Building Control (Amendment) Regulations (2013) as it was deemed the pre-BCAR system was not fit for purpose. This document sought the opinion of Industry Professionals with respect to this two-tiered system of Building Regulation Control that exists within the Republic of Ireland at present.

Research was undertaken using mixed methods. Using quantitative methods, a survey questionnaire was sent to an indicative sample of Industry Professionals resulting in a response rate of 76.19%. Qualitative methods were then adopted by means of a series of interviews in an attempt to gauge the thought process from an indicative sample of survey respondents.

The findings show that there are major issues to be overcome if we are to prevent a reoccurrence of mistakes of the past. The conclusions drawn show that whilst there are issues with Building Regulation Control, vested interests and competence of General Contractors, all can be regularised by the adoption of a top-down Local Authority lead approach to Building Regulation Control similar to that currently utilised throughout the United Kingdom and Northern Ireland.
Declaration

I hereby certify that this thesis which I now submit for assessment on the program of study leading to the award of MSc in Quantity Surveying is entirely my own work and has not been taken from the work of others except to the extent that such work has been cited and acknowledged within the text of my work.

This thesis was prepared according to the regulations of Dublin Institute of Technology and has not been submitted in whole or in part for an award in any other Institution.

Signed: ____________________ Date: ________________
Acknowledgements

I would like to thank all the staff at Dublin Institute of Technology for their guidance through the last two and a half years. I wish also to thank my tutor, Dr. Nicholas Ingle who advised and guided me in the preparation of this study.

I would like to thank all survey respondents and interview participants for without their valued input this study would not have been possible.

Finally, I would especially like to thank my extremely patient wife for her advice and encouragement and for successfully raising our two boys whilst I was attending lectures, studying for exams and preparing this dissertation document.
List of Abbreviations:

AC - Assigned Certifier
AI - Approved Inspector
BCAR - Building Control Amendment Regulations
BCMS - Building Control Management System
BD – Building Designer
BO - Building Owner
BR – Building Regulations
BRC – Building Regulation Control
CI – Construction Industry
CIRI - Construction Industry Register of Ireland
DC – Design Certifier
DECLG - Department of Environment, Community and Local Government
DEHPLC – Department of Housing, Planning, Community and Local Government
DT – Design Team
EI - Engineers Ireland
GC – General Contractor
LA - Local Authority
RIAI - Royal Institute of the Architects of Ireland
ROI – Republic of Ireland
SI - Statutory Instrument
TGD – Technical Guidance Documents
UK and NI – United Kingdom and Northern Ireland
SI - Statutory Instrument
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Chapter 1 – Introduction

“As with all regulatory situations, success….. will hinge on the eagerness, willingness and capacity of all engaged in the construction industry to make the system work. The watchword is cooperation; not conflict.”

Stephenson (2006)

Introduction

A swift perusal of the Building Control section of Dublin City Council’s website will cause one to encounter the following statement:

‘The Building Control Division is responsible for administrating the Building Regulations. The Regulations are applied and enforced throughout the Dublin City Council areas and are supported by the technical guidance documents. These technical documents, known as approved documents are to provide guidance for meeting the requirements of the Building Regulations 1997 – 2011’

Dublin City Council (2016)

The Oxford English Dictionary states that ‘administrating’ is a verb that is a less common term for ‘administer’. The fact that it is a verb denotes that it is the operator in the statement above, much like ‘define’, ‘explain’, ‘prove’ or ‘compare’ would be in an examination scenario. Therefore it is the key descriptor that defines the Local Authorities, LA, role with regard to the Building Regulations, BR’s.

The Oxford English Dictionary defines ‘to administer’ as ‘to manage and be responsible for’. Therefore it stands to reason that the LA’s position is to manage and be responsible for BR’s. Or in other words, to manage and be responsible for Building Regulation Control, BRC.

The same dictionary defines ‘responsible’ as ‘having an obligation to do something’ or ‘morally accountable’ or ‘being the primary cause of something and so able to be blamed or credited for it’.
It is at this point that the lines become blurred. The Building Control (Amendment) Regulations, BCAR, (2013) came into being on the 1st March 2014 as the proffered solution to decades of poor BRC as evidenced by high profile fiascos such as Priory Hall and Longboat Quay. However, BCAR did not apply to the following dwellings:

- Extensions of less than 40m2.

This created an issue that became exacerbated by the emergence of the Building Control (Amendment) Regulations, BCAR, (2015) in September of the following year which created an opt-out clause for the following dwellings:

- New single dwellings
- Domestic extensions greater than or equal to 40m2

The dwellings listed above whether exempt or availing of the opt-out clause revert to the pre-BCAR system of BRC. This is a system that was previously deemed poor enough to be replaced. This relies on self-certification and Opinions of Compliance and requires the requisite LA to inspect 12-15% of validly commenced building units, (DECLG, 2015).

Certification in general is concerned with the rights of the end user. However only the client has a direct route to the General Contractor, GC, as that is the only route that contains consideration, (payment), for works completed and therefore an enforceable contract. Loose certification therefore affects everyone, but none more-so than a subsequent owner if the original client sells. Owing to ‘caveat emptor’, (let the buyer beware), they may find themselves with a series of latent defects with no route back to the original Design Team, DT, or GC. The survey that they commission prior to purchase will deal with aesthetic issues only as the Building Surveyor will not be in a position to open up works throughout the property.

The position that this dissertation document aims to prove is that the current system of BRC in respect of the dwellings listed above is not fit for purpose as it is not possible for a LA to ‘manage and be responsible for’ a system that set its inspection target rate at 12-15%. It will show that the system of self-certification is flawed as it requires a minimum level of competency among GC’s which is currently not present. It will show that Opinions on Compliance are inherently flawed and therefore inadequate as a protectionist measure for the general public.
This paper will also perform a review of the current system of BRC that is in operation throughout the United Kingdom and Northern Ireland, UK and NI, and will seek to ascertain if there is a requirement throughout the Republic of Ireland, ROI, for the introduction of a top-down LA lead approach to BRC similar to that currently utilised throughout that jurisdiction.
Rationale

The Building Control (Amendment) Regulations (2013), BCAR, were introduced as a Government response to a number of high profile failures in respect of BRC.

The initial Statutory Instrument, SI, allowed no further provision for domestic extensions of less than 40m2, save for the fact that it made them exempt of the new regulations. This has created a scenario where a DT and GC can be involved in a domestic project encompassing a complete renovation of an existing 250m2 dwelling with the only addition being that of a 30m2 extension and therefore not come under the remit of BCAR at all.

The amended regulations, BCAR (2015), were further introduced on 1st September 2015 and created an opt-out clause for two further dwelling types. Currently all domestic extensions, regardless of size, are either exempt or can opt-out of BCAR whilst those constructing new single dwellings can opt-out.

All of these dwellings revert to the pre-BCAR system of BRC that was previously deemed not fit for purpose.

Throughout this dissertation document the author seeks prove that the current system of BRC in respect of the following dwellings is not fit for purpose:

- Extensions of less than 40m2.
- New single dwellings
- Domestic extensions greater than or equal to 40m2

The author will also seek to ascertain if there is a requirement throughout the ROI for the introduction of a top-down LA lead approach to BRC similar to that currently utilised throughout the UK and NI.

The current system of BRC that is in operation throughout the UK and NI require all drawings and specifications to be signed off by the LA prior to commencement and also requires staged sign-off on site by a LA or Approved Inspector, AI.
Scope

This dissertation document focusses on those dwelling types where BCAR does not apply or can be opted out of. There is a distinct lack of literature available on the subject matter as it seeks to create a fundamental change in how adherence to Building Regulations in respect of these dwellings is governed.

The literature review will focus the current systems of BRC throughout the ROI and UK and NI in an attempt to provide focus to the tenets of this dissertation document that are under review.

For the purpose of gathering information on this topic, the author will use both quantitative and qualitative methods in the form of questionnaires and interviews respectfully. Through these research methods, opinions will be collected from those directly involved in the Construction Industry, CI. The information gathered will assist the author in determining conclusions and suggesting recommendations for ensuring improved building control in Ireland.

This document will not focus on the proposed costs of such a system nor will it suggest on its proposed implementation. However, these topics will be considered as areas for further research.
Aims and Objectives

The objective of this dissertation document is an intention to establish a more effective and more efficient system of BRC throughout the ROI.

As BCAR was introduced to improve on the inadequacies of the pre-BCAR system of BRC the aims of this dissertation document are two-fold:

- to prove that the system of BRC in respect of dwellings where BCAR does not apply or can be opted out of is not fit for purpose
- to ascertain if there is a requirement throughout the ROI for the introduction of a top-down LA lead approach to BRC similar to that currently utilised throughout the UK and NI.

This document will seek to achieve these aims by the following methods:

- A literature review that focusses on the current methods of BRC utilised both in the ROI and UK and NI.
- Quantitatively by way of a survey questionnaire that will be sent out to industry professionals.
- Qualitatively by way of a series of interviews that will attempt to gauge the thought process from an indicative sample of the survey respondents.

Conclusions and recommendations will then be formed using all of the data as gathered which will either prove or disprove the aims as set down.
Summary of Chapters

Chapter 1 introduces the topic under discussion to the general peruser whilst setting out the parameters in terms of the rationale, scope, aims and objectives.

Chapter 2 deals with the literature review of the topic under discussion. The chapter is broadly in two parts dealing with the current operative state of BRC throughout both the ROI and the UK and NI. The literature is broadly taken from Government publications, textbooks and articles.

Chapter 3 synopsises the data collected in the literature review as it serves to highlight the shortcomings of BRC throughout the ROI. It used the data to create a series of questions that will form the basis for the survey questionnaire.

Chapter 4 deals with the research methodology, findings and results that are obtained from the mixed methods used to collect and collate data.

Chapter 5 draws conclusions from the results of the data obtained from this study by referring to the original aims of the document and detailing how they have subsequently been proven. Recommendations are made based on the information gathered. The author also draws attentions to areas of further research that can be pursued.
Chapter 2 - Literature Review

Introduction

The aim of this literature review is to create an understanding for the general perusal of this document as to the operational workings of BRC.

Note that for the purposes of this document the terms ‘Builder’ and ‘General Contractor’ are interchangeable and are used as such.

There is a distinct lack of available literature on the authors chosen topic as it seeks a fundamental change in approach from the model of BRC that is currently in use throughout the ROI. As such it represents a move into somewhat unchartered territory as the author seeks to ascertain if there is a requirement throughout the ROI for the introduction of a top-down LA lead approach to BRC similar to that currently utilised throughout the UK and NI by delving into the current legislative position in the ROI and comparing that with what is operational throughout the UK and NI.

The author will aim to produce a review that will inform the peruser both with regard to BRC and the current status of BRC throughout both jurisdictions prior to synopsising, which will seek to contrast and summarise the key differences between the jurisdictions with the result creating a series of obvious discrepancies that will be used to form the basis of the questionnaire that will be sent out to industry professionals as part of the quantitative research analysis section of this document.

The literature review will be broken down into the following sections;

- Building Regulation Control in the Republic of Ireland
- Building Regulation Control in the United Kingdom and Northern Ireland

Building Regulation Control in the Republic of Ireland

BRC in the ROI became regulated with the adoption of the Building Control Act of 1990. The stated aim of the Act was to achieve the following;

‘to provide for the establishment of building control authorities and the making of building regulations and building control regulations and to provide for matters relating to the construction of buildings and to provide for other matters connected therewith’
Building Control Act (1990)

The Act is the basis of Building Control and it sought to ensure that “every building to which building regulations apply shall be designed and constructed in accordance with the provisions of such regulation”, by aiming to promote good practice in the design and construction of buildings in the interests of health, safety and welfare of persons who use buildings. It empowered the Minister of the day to make Building Regulations, BR, and Building Control Regulations.

To facilitate this statutory requirement a series of Technical Guidance Documents, TGD’s, were produced to indicate how the various requirements of the Act could be achieved in practice.

The Documents produced were as follows;

- Part A – Structure
- Part B – Fire Safety
- Part C – Site Preparation and Resistance to Moisture
- Part D – Materials and Workmanship
- Part E – Sound
- Part F – Ventilation
- Part G – Hygiene
- Part H – Drainage and Waste Water Disposal
- Part J – Heat Producing Appliances
- Part K – Stairways, Ladders, Ramps and Guards
- Part L – Conservation of Fuel and Energy
- Part M – Access and Use

Adherence to the various approaches outlined in the TGD’s is regarded as evidence of compliance with the requirements of the relevant part of the BR’s. Primary responsibility for compliance with the requirements of the BR’s rests with the DT, GC’s and Building Owners, BO’s.

DEHPLC (2016)
Building Control Regulations 1997

The 1990 Act was followed by the 1997 Building Control Regulations that came into operation on the 1st July 1998 by way of SI’s no. 496 and 497 of 1997. From that date to 1st March 2014 they provided a framework to regulate the following:

- Commencement Notice
- Fire Safety Certificate
- 7 Day Notice
- Regularisation Certificate
- Revised Fire Safety Certificate
- Disability Access Certificate

The purpose of the 1997 Building Control Regulations was to promote observance of the BR’s. This was achieved by requiring the aforementioned commencement notices for building works to be lodged with all LA’s prior to works commencing on site. Others such as the Fire Safety Certificate and the Disability Access Certificate also have a statutory requirement should project in question fall within the required parameters of such certificates.

Certification

Until the 1st March 2014 the notices and certificates noted above formed part of the Statutory Compliance documentation required when completing building works throughout the ROI.

The Royal Institute of Architects of Ireland, RIAI, publishes one such Opinion titled ‘Architects Opinion on Compliance of an Apartment Dwelling with Building Regulations’ for use by their members. The abstract is the following phrase:

‘This opinion is based on a visual inspection of the completed apartment and is issued in the matter of licenses and consents only. It is not a report on the condition of the apartment nor does it relate to elements of the construction which are covered up, inaccessible or otherwise obscured from view. The RIAI advises that matters not evident by visual inspection may be material to the matter of substantial compliance’

RIAI (2000)
When works were completed the Architect or Engineer would have produced this Opinion on Compliance which deals with both the planning permission so received and the BR’s. Simply put, this was a document which stated that the professional was satisfied that the project was compliant if the contractor/developer had built in accordance with the drawings and specifications so produced and current BR’s.

The professionals approach is thus, he or she was not or could not be on site all day / every day and as such could not be expected to sign off on a project as built. This is an acceptable approach under this system of BRC as there is no onus on the same said professional to provide constant supervision for the works.

Note that this is a point of particular interest to the author as it deals with the flawed principle of self-certification which is a main tenet of this dissertation document. This principle is based on the General Contractors, GC, competence and knowledge of the same said BR’s. The author will return to this point in the synopsis chapter and resultant survey questionnaire and interviews.

Building Control (Amendment) Regulations


The aim of BCAR is to ensure that all involved in the construction process and the regulatory system work effectively to achieve better building construction, (DECLG, 2014).

It is important to note at this juncture that BCAR (2013) did not apply to domestic extensions that are less than 40m2 in size. The regulatory control system for these dwellings relies on the pre-BCAR system of self-regulation and opinions on compliance. This material fact forms part of the basis for this dissertation document and therefore must be highlighted.

Statutory Documents

The following documents are statutory requirements under BCAR and must be provided at the culmination of each project;

- Design Certificate signed by the Design Certifier at the commencement stage
• Form of Undertaking signed by the Assigned Certifier at the commencement stage
• Form of Undertaking signed by the Builder at the commencement stage
• Certificate of Compliance on Completion signed by the Builder and by the Assigned Certifier at completion stage.

BCAR identifies the various stakeholders that are involved in a building project as follows;

• Building owner
• Building designer
• Assigned certifier
• Builder

DECLG (2014)

Building Owner

Under BCAR it is the BO that is ultimately responsible for whether or not the building is compliant with BR’s. The BO must ensure that they appoint a competent Builder and competent registered professionals to act as Designer and as Assigned Certifier, AC.

The BO should ensure the following;

• Ensure that a Fire Safety Certificate and a Disability Access Certificate are obtained where required
• Sign a Commencement Notice (or 7 day notice) that is lodged
• Sign the notice for the assignment of a competent, registered professional (the AC) who will inspect the building works during construction and provide a certificate of compliance on completion
• Sign the notice for the assignment of a competent Builder to construct in accordance with the plans, specifications and BR’s and to sign the Certificate of Compliance on completion; Builders included on the Construction Industry Register Ireland, CIRI, or equivalent may be regarded as competent for projects consistent with their registration profile
• Ensure that adequate resources and competent persons are made available to design, construct, inspect and certify the building works

• Promptly appoint a replacement AC or Builder where the AC or Builder withdraws from the project for whatever reason; where this happens the BO is required under the Building Control Regulations to give notice to the Building Control Authority of the new assignment; at all times the BO should use reasonable endeavours to ensure that an AC and Builder are in place

• Where there is a change of BO, prior to the submission of the completion certificate, the new BO is required under the Building Control Regulations to give notice of the change of BO and, also, to notify the Building Control Authority in writing of all appointments that are in place

• Maintain records

DECLG (2014)

The author notes that it may prove difficult for BO’s, themselves lacking in any construction experience whatsoever, to appoint a suitably competent AC or Builder to oversee and complete the works. The Oxford English Dictionary defines ‘competent’ as ‘having the necessary ability, knowledge or skill to do something successfully’. Whilst a BO is readily able to appoint an individual AC or Builder based on their past work experience, it is not clear at this stage as to how the BO can make a qualified interpretation as to their competence.

This is an important point as it runs close to one tenet of this dissertation document which aims to ascertain if there is an appetite throughout the ROI for a top-down LA lead approach to BRC similar to that currently utilised throughout the UK and NI. It will be shown later that the UK and NI approach ensures competence by requiring staged sign-off by individuals or firms that are deemed fit to practice as a direct result of their proven competence.

Building Designer

Under BCAR the Building Designer, BD, undertakes to complete the following;

• Design their respective elements of work in accordance with the applicable requirements of the Second Schedule to the BR’s
• Provide the Design Certifier, DC, with the necessary plans, specifications and documentation that is required for lodgement at commencement stage
• Arrange to provide sufficient information to the AC to enable them to fulfil their role
• As agreed with the AC, carry out work inspections which are pertinent to their elements of the Design, and liaise with the AC in terms of this and the required ancillary certification
• Notify the AC of their proposed inspection regime for inclusion in the overall Inspection Plan
• Provide the Ancillary Certificates when required by the AC and DC
• Maintain records of inspection

DECLG (2014)

The BD’s role is a continuation of that that was required, though not enforced, pre-BCAR. At its most basic it outlines a requirement for the drafting of a complete set of construction drawings and specifications which will detail intricate details such as fire breaks, thermal breaks etcetera from a constructability point of view. It enforces the requirement to consider how certain elements of the works come together, in an attempt to prevent such issues arising on site.

BCAR also creates an allowance for the production of Ancillary Certificates. The Oxford English Dictionary defines ‘ancillary’ as ‘providing necessary support to the primary activities or operation of an organisation, system etcetera’. This detail provides for the fact that the BD may not have competence in specialisms such as lift installation, curtain walling etcetera. As such they can employ the services of a specialist supplier who are, as part of the terms of their employment, required to produce an Ancillary Certificate which states that the design and installations of their works package is in accordance with BR’s.

Assigned Certifier

The Assigned Certifier, AC, is assigned by the BO as required under the Building Control Regulations. They undertake to inspect, and to co-ordinate the inspection activities of others during construction, and to certify the building or works on completion, (DECLG, 2014).
The responsibilities of the AC are as follows;

- Provide and sign the relevant statutory certificates - the form of undertaking at commencement and the Certificate of Compliance on Completion
- Co-ordinate the ancillary certification by members of the design team and other relevant bodies for the Certificate of Compliance on Completion
- Identify all design professionals and specialists, in conjunction with the Builder, from whom certificates are required
- Identify all certificates required and obtain them
- Co-ordinate and collate all certification of compliance for completion in conjunction with the Builder
- In consultation with the members of the design team, plan and oversee the implementation of the Inspection Plan during Construction
- Prepare the Preliminary Inspection Plan and oversee adherence to this plan, and on completion provide the Inspection Plan as implemented
- On termination or relinquishment of their appointment make available to the BO all certification prepared and inspection reports carried out
- Act as the single point of contact with the Building Control Authority during construction
- Seek advice from the Building Control Authority, in respect of compliance matters relating to the building or works where disputes or differences of opinion arise between the parties to the project
- Maintain records of inspection

DECLG (2014)

The AC must be one of the following:

- Chartered Engineer
- Architect
- Building Surveyor

The AC is defined as ‘the competent, registered professional person so assigned, in accordance with the Building Control Regulations, (DECLG, 2016).

It must be noted that it is not quite clear how mere membership of any of the above categories ascertains competence with regard to the current BR’s. Architectural Technolo-
gists are not permitted to fulfil the role of AC. The author holds that this is surprising given that they would seem to have the greatest knowledge of all industry professionals with respect to BR’s and general knowledge of materials and their uses.

The AC must produce a Certificate of Compliance upon completion of the building project. This certificate is a declaration of the following:

- I confirm that I am the AC assigned by the BO to inspect and certify the building or works concerned
- Plans, calculations, specifications and ancillary certificates and particulars as required for the purposes of Part IIIC of the Building Control Regulations are included in the Annex
- I now confirm that the inspection plan, drawn up having regard to the Code of Practice for Inspecting and Certifying Buildings and Works, or equivalent, has been undertaken by the undersigned having exercised reasonable skill, care and diligence, and by others nominated therein, as appropriate, on the basis that all have exercised reasonable skill, care and diligence in certifying their work in the ancillary certificates scheduled
- Based on the above, and relying on the ancillary certificates scheduled, I now certify, having exercised reasonable skill, care and diligence, that the building or works is in compliance with the requirements of the Second Schedule to the BR’s, insofar as they apply to the building or works concerned

DECLG (2014)

It must be noted that the role of the AC does not include responsibility for the supervision of any builder. The author holds that this is just. Responsibility for the works must rest where they lie.

The role of the AC can be fulfilled by a member of the DT. The author holds that this creates a vested interest and should be removed. The role of the AC should be that of independent third party certification, which would provide greater surety for the end user.

Builder

The Builder is expected to carry out the works in accordance with the plans and specifications of the professional design team, their specialists and sub-consultants as neces-
sary and have regard to these in accordance with the requirements of the BR’s, (DECLG, 2014)

The Builder is required to do the following:

- Accept from the BO the assignment to build and supervise the building or works outlined in the Commencement Notice
- Familiarise themselves with the drawings, specifications and documents lodged with the Commencement Notice
- Ensure a competent person is assigned to oversee the Construction works
- Co-operate with the DT, the AC and other certifiers
- Ensure that the workmanship complies with the requirements of the BR’s
- Ensure that materials which they select and for which they are responsible comply with the requirements of the BR’s
- Sign the Certificate of Compliance upon completion
- Provide to the AC, such documents for which they are responsible, as may assist the AC to collate particulars for the purposes of handover and certification, and/or for further submissions to the Building Control Authority
- Ensure the coordination and provision of all test certificates and confirmations to the satisfaction of the AC or other designated inspectors or certifiers providing Ancillary Certificates
- Maintain records

DECLG (2014)

Once again it is clear that BCAR expects a certain level of competence with BR’s among those that see fit to trade as a Builder or GC.

It is not clear at this point, other that it being an aspirational requirement, how such competence is expected to be achieved. It is currently an unregulated industry in terms of said competence or indeed qualifications to trade as a GC in general.

The latest reliable data, produced by the CSO (2014), states that in 2012 there were 33,946 active enterprises in the construction sector with a turnover of €8.9 billion. This data, whilst referenceable, is undoubtedly dated given that recent years have shown a marked increase in construction activity.
Notwithstanding, the author holds that the fact that such a large industry is unregulated in terms of its active members and their associated competencies with regard to BR’s is quite a damning analysis of a sector that is rapidly growing once again. As such there does seem to be a requirement for a top down LA lead approach to BRC similar to that currently utilised throughout the UK and NI. The author will return to this point in the synopsis chapter and resultant survey questionnaire and interviews.

The Builder must produce a Certificate of Compliance upon completion of the building project. This certificate is a declaration of the following:

- I confirm that I am the Builder assigned by the owner to construct, supervise and certify the building or works.
- I certify, having exercised reasonable skill, care and diligence, that the building or works as completed has been constructed in accordance with the plans, calculations, specifications, ancillary certificates and particulars as certified under the Form of Certificate of Compliance (Design) and listed in the schedule to the Commencement / 7 Day Notice relevant to the above building or works, together with such further plans, calculations, specifications, ancillary certificates and particulars, if any, as have been subsequently issued to me and certified and submitted to the Building Control Authority, and such other documents relevant to compliance with the requirements of the Second Schedule to the Building Regulations as shall be retained by me as outlined in the Code of Practice for Inspecting and Certifying Buildings and Works.
- Reliant on the foregoing, I certify that the works are in compliance with the requirements of the Second Schedule to the BR’s insofar as they apply to the building or works concerned.

DECLG (2014)

The author holds that there is an inherent flaw in the requirement for such certification as the production and issuance of such results in release of final monies due to the Builder or GC. This represents a vested interest that has the potential to create a doubt surrounding the veracity of any such document.
Building Control Management System

‘The Building Control Management System (BCMS) was implemented in March 2014 and allows property owners, builders, developers, architects and engineers to submit notifications, applications and compliance certificates online. It provides an internal management system for the processing of notices received online and over the counter in local authorities’ (LGMA, 2016).

The BCMS is effectively a database where details of all projects that come under the remit of BCAR are submitted. However its main role is that of merely a database. Drawings and specifications inspections are ‘random and risk based’, and are based on ‘the use of the building; the type of construction; the level of experience of the design team and the builder’ (Phelan, 2014). This is defined as ‘smart use’ of resources which the author contends is really an acronym for the lack of suitable resourcing. For example, a perusal of the BCMS section of Tipperary County Council website will cause one to encounter the following phrase, ‘currently the Fire Service manages the Building Control function of Tipperary County Council’. It is unclear as to the relevant qualifications of the individuals so involved to fulfill such a role but the fact that there is not a dedicated department would lead one to believe that resources are an issue.

The following are a list of the most common compliance issues as detailed by Mairead Phelan (2014) who is the project manager of the BCMS in Fingal which was the lead LA for the implementation of the BCMS. Included is the relevant Technical Guidance Document to which the issue relates:

- Underfloor fill-panel fixings, pyrite - Part A, C, D
- Moisture ingress-radon, DPC - Part C
- Fire resistance-eaves, party walls, ducting - Part B
- Condensation and mould growth - Part F
- Frozen pipes, attic tank, stopcocks - Part G
- Septic tanks overload, flooding - Part H
- Flues, location, size, burners - Part J
- Balcony detailing, stair rails – wrong height, glass - Part K
- Steps to entrances - Part M
- BER calculations do not exist, stud fixings, cavities clear of mortar - Part L
- Timber frame-fixings, vapour control, cavity barriers, fire stopping
• Sound transmission, flooring detail, insulation - Part E, L

Phelan (2014)

A swift perusal show that the system that is in place to ensure compliance by utilising a random and risk based methodology shows a manifestation of compliance issues in every section of the TGD’s.

The Framework that was introduced for LA’s Building Control Authorities to aid the implementation of the BCMS contains the following paragraph:

‘It is expected that Building Control Authorities will undertake an appropriate level of assessment and inspection informed by the risk analysis of commencement notices submitted, thereby ensuring that available inspection resources are targeted towards projects carrying the greatest risks’

Whilst it is satisfactory that these issues are arising and therefore dealt with, it must be highlighted that this is just the minority of cases that are inspected. As the compliance methodology is risk based; it stands to reason that the focus will be on the repeat offender which serves to narrow the inspection rate once again.

It is a main tenet of this dissertation document to ascertain if the ROI could benefit from a top down LA lead approach to BRC similar to that currently utilised throughout the UK and NI. This system inspects 100% of projects, 100% of the time. The issues above as detailed by Phelan (2014) would seem to suggest that it would.

Building Control Amendment Regulations 2015

Following a review of BCAR (2014) after the first year of operation Minister’s Paudie Coffey and Alan Kelly eased the impact of the regulations using SI no. 365 of 2015. This seemed to be a reaction following on from reports that some clients were being charged wholly inappropriate amounts of money in order to comply with BCAR (2014). The change created an opt-out of statutory certification for the following classifications;

• New single dwellings
• Domestic extensions greater than or equal to 40m2

DECLG (2015)
The DECLG Information Note published with this particular SI states that a homeowner who chooses this opt out procedure must sign a form of ‘Declaration of Intention to Opt Out of Statutory Certification which may be obtained online via the Building Control Management System, BCMS, or from the local building control authority’ It goes on to state that ‘the submission of a Commencement Notice allows the LA to assess which projects should be subject to risk-based inspections as typically undertaken on at least 12-15% of validly commenced building units, in line with its statutory function of monitoring building activity in general within its geographic area. Inspection by local building control authorities remains a prospect for homeowners, irrespective of whether or not a homeowner opts out of the statutory certification provisions’

The above SI represented a turn of events that did not sit well with professionals across the industry. The Director General of Engineer’s Ireland, EI, wrote to the ministers confirmed stating ‘It is the view of EI that the amendment as outlined may seriously compromise the very significant advances made to date and do not appear to align with the department’s goals to protect the consumer. It is also the view of EI that the newly proposed regulations will lead to the creation of a two-tier housing market, which will not support consistent implementation of standards throughout the industry. Investment in design, inspection and certification during construction leads to better quality and compliance with building standards. Therefore the overall fee associated with statutory certification should be looked upon in the context of the overall life cycle costs of a building and not just the ‘one-off’ costs of construction. There is no empirical data supporting the assertion that consumers are being quoted excessive fees’, (EI,2015).

Once again, it is important to note at this juncture that since the adoption of the BCAR (2015) the following dwelling types do not come under the remit of the regulations:

- Domestic extensions that are less than 40m2 in size

Also, clients requesting the following dwelling types can opt-out of the statutory certification required:

- New single dwellings
- Domestic extensions greater than or equal to 40m2

The following table shows the major differences between dwellings that are under the umbrella of BCAR and those to which BCAR does not apply or has been opted out of.
<table>
<thead>
<tr>
<th>Statutory Certification of Compliance for Building Control Purposes</th>
<th>Alternative Process for Owners Opting Out of Requirements for Statutory Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commencement Notice</td>
<td>Commencement Notice</td>
</tr>
<tr>
<td></td>
<td>Declaration of Intention to Opt Out of Statutory Certification</td>
</tr>
<tr>
<td>Compliance Documentation (plans, calculations, specifications, etc.) which include (i) general arrangement drawings, (ii) a schedule of compliance documents as currently designed or to be prepared at a later date, (iii) online assessment of BCMS, (iv) Preliminary Inspection Plan prepared by the Assigned Certifier</td>
<td>Compliance Documentation (plans, calculations, specifications, etc.) and to include (i) general arrangement drawings, (ii) a schedule of compliance documents as currently designed or to be prepared at a later date, (iii) online assessment on the BCMS</td>
</tr>
<tr>
<td>Design Certificate signed by a registered Construction Professional</td>
<td>-</td>
</tr>
<tr>
<td>Notice of Assignment of Assigned Certifier</td>
<td>-</td>
</tr>
<tr>
<td>Undertaking by Assigned Certifier</td>
<td>-</td>
</tr>
<tr>
<td>Notice of Assignment of Builder</td>
<td>Notice of Assignment of Builder</td>
</tr>
<tr>
<td>Undertaking by Builder</td>
<td>-</td>
</tr>
<tr>
<td>Completion Certificate signed by Builder (Part A) and by Registered Construction Professional (Part B) and accompanied by up-to-date schedule of compliance documents and the inspection plan as implemented</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 1.0 Comparisons of requirements relating to Statutory Certification of Compliance for Building Control purposes and the Alternative Process for Owners who opt out of Statutory Certification (DECLG, 2015).

It is very clear that there is a major difference between the two certification processes. Clients that opt out of the statutory certification that is required by BCAR are leaving
themselves in limbo should problems arise in the future. It is also important to note that the introduction of the opt-out mechanism required systems to be put in place throughout the various LA’s to enable them to inspect 12-15% of units. At this stage it is unclear as to how this requirement can be fulfilled.

It remains to be seen whether or not this creates a two-tiered housing market in terms of certification and if general conveyancing will become a future problem in respect of dwellings where clients opted out of statutory certification.

The author holds that the figure of 12-15% is unsatisfactory and that the introduction of a top-down LA lead approach to BRC, as is a tenet of this dissertation document, would automatically result in ensuring compliance with regulations.

It is also telling that certain financial institutions throughout the ROI require that all statutory certification be sought in terms of clients that are availing of mortgage drawdowns. Quite the role reversal when the same said institutions now appear to be at the forefront of BRC throughout the ROI.

**Construction Industry Register of Ireland**

The Construction Industry Register of Ireland, CIRI, was set up to provide the public with a register of experienced and competent industry professionals. It is defined as ‘an official online register, supported by Government, of competent builders, contractors, specialist sub-contractors and tradespersons who undertake to carry out construction works. Its objective is to be recognised as the primary online resource used by consumers in the public and private procurement of construction services, (CIRI, 2014).

Builders that register with CIRI ‘commit to delivering excellence in every aspect of their work. They are competent and capable to deliver the job at hand, they run their business in a professional manner and they sign up to continuous professional development to stay at the forefront of construction best practices’ (CIRI, 2014)

Members are required to meet the following criteria:

- Demonstrate they have construction competence and experience
- Adhere to an industry Code of the Ethics and Obligations
- Must be tax compliant
- Commit to undertaking continuous professional development (CPD)
• Comply with health and safety regulations relating to the construction industry
• Show they have the relevant insurance policies in place
• Obey all the latest building standards and regulations

CIRI (2014)

CIRI went live as a voluntary database on 16th July 2014 with a firm commitment that membership would be mandatory in 2015. To date membership of this organisation remains voluntary.

The author holds that the CIRI cannot be relied on as a collateral regulatory technique until such time as membership becomes mandatory for all Builders and GC’s working throughout the ROI.

**Building Regulation Control in the United Kingdom and Northern Ireland**

**Permissions**

Building Control is at the leading edge of construction throughout UK and NI. The following types of permission are needed throughout its jurisdiction:

• Planning permission
• Building Regulations Permission

The basis for this system is that all proposed development should not only require planning permission but that adherence to current BR’s is of equal importance for an assessment to be made as to the technical acceptability of the proposal.

The following is a list of projects that require building regulation permission throughout the UK and NI. The list is long but necessary to educate the peruser as to importance placed on the requirement for such permission and therefore the regard to which the UK and NI place on BRC.

• All new buildings except agricultural buildings
• Garages that are not fully detached and under 30 square meters
• All extensions no matter how small
• Some conservatories and porches
• Roof extensions, balconies and roof terraces
• Basements and basement extensions
• All loft conversions, roof extensions, balconies and roof terraces
• All garage conversions
• Barn conversions
• Subdividing a house into flats
• Converting flats back into a house
• Creating a ‘granny annex’
• Creating a new or ensuite bathroom or cloakroom
• Installing a new kitchen
• Taking out a loadbearing wall
• Taking out a non-loadbearing wall if it separates a room from your hall, staircase or landing
• New installation or replacement of a heating system or any boiler, regardless of fuel type
• New installation or replacement of an oil tank
• Installation of a new bathroom if existing plumbing is altered or if new plumbing is installed
• Installation of fixed air conditioning systems
• Installation of additional radiators to some existing heating systems
• Any new electrical installation
• Installing roof lights
• Making windows or doors wider or taller
• Replacement of roof coverings on pitched and flat roofs
• Replacing your floor

Local Authority Building Control (2016)

A swift perusal of the above list of works quickly reinforces the fact that it not possible to undertake building works without the correct Building Regulation Permission throughout the UK and Northern Ireland.

Inspectors

Building Regulation Permission can be obtained from the following;

• Local Authority Building Control Services
• Approved Inspectors

Approved Inspectors, AI’s, must prove that they are qualified and suitably experienced before the can apply to be licensed by the Construction Industry Council, CIC. Approved Inspector Geoff Wilkinson (2013) states that this ‘typically means that they hold Royal Institute of Chartered Surveyors or equivalent qualifications, have 5 years post qualification experience, have complaints procedures and insurance in place in case anything goes wrong, undertake continuous training of staff and sign up to performance standards’.

Wilkinson further states that they should be the preferred choice as they allow for the fact that ‘the building regulations have been cast in a functional form rather than being prescriptive. In plain English this means that there are many different ways that you can show compliance, not just by following the Approved Documents. AI’s are more flexible in interpretation of the regulations as they are aware of these alternative routes’.

The author holds that this is an extremely important distinction should a similar system be introduced in the ROI. The workability of any new system should be to the fore and the ability to prove compliance to the overall regulatory body would ensure a smoother transition period.

Competencies are assessed in the following areas:

• Legislation and Law
• Structural Design
• Fire Safety
• Construction Technology and Sustainability
• Building Services and Environmental Engineering

Construction Industry Council (2016)

Applicants must prove to the CIC that they or individuals within their organisation are suitably qualified to a pre-defined level by filling out an Approved Inspector Knowledge Base Matrix. The matrix is as follows:
<table>
<thead>
<tr>
<th>Part 1</th>
<th>Building Control Legislation and Associated Requirements</th>
<th>CICAIR Expectation</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>Building Act</td>
<td>C</td>
</tr>
<tr>
<td>L2</td>
<td>Building Regulations</td>
<td>C</td>
</tr>
<tr>
<td>L3</td>
<td>Building (Approved Inspectors etc.) Regulations</td>
<td>C</td>
</tr>
<tr>
<td>L4</td>
<td>Approved Documents</td>
<td>C</td>
</tr>
<tr>
<td>L5</td>
<td>Regulatory Reform (Fire Safety) Order</td>
<td>C</td>
</tr>
<tr>
<td>L6</td>
<td>Local Enactments</td>
<td>C</td>
</tr>
<tr>
<td>L7</td>
<td>Legislation specific to England or Wales</td>
<td>C</td>
</tr>
<tr>
<td>L8</td>
<td>DCLG and Welsh Government circular letters</td>
<td>C</td>
</tr>
<tr>
<td>L9</td>
<td>CIC Code of Conduct for Approved Inspectors</td>
<td>C</td>
</tr>
<tr>
<td>L10</td>
<td>Building Control Performance Standards</td>
<td>C</td>
</tr>
<tr>
<td>L11</td>
<td>Duties, responsibilities and liabilities of an Approved Inspector</td>
<td>C</td>
</tr>
<tr>
<td>L12</td>
<td>Sustainable and Secure Buildings Act</td>
<td>Ap</td>
</tr>
<tr>
<td>L13</td>
<td>The Housing Acts</td>
<td>Ap</td>
</tr>
<tr>
<td>L14</td>
<td>Town and Country Planning Acts</td>
<td>Ap</td>
</tr>
<tr>
<td>L15</td>
<td>Housing and Regeneration Act</td>
<td>Ap</td>
</tr>
<tr>
<td>L16</td>
<td>Equalities Act</td>
<td>Ap</td>
</tr>
<tr>
<td>L17</td>
<td>Gas Safety (Installation and Use) Regulations</td>
<td>Ap</td>
</tr>
<tr>
<td>L18</td>
<td>Licensing legislation</td>
<td>Ap</td>
</tr>
<tr>
<td>L19</td>
<td>Civil, criminal and case law</td>
<td>U</td>
</tr>
<tr>
<td>L20</td>
<td>European laws and regulations</td>
<td>U</td>
</tr>
<tr>
<td>Part 2</td>
<td>Structural Design</td>
<td></td>
</tr>
<tr>
<td>SD1</td>
<td>Assessment of risks and identification of hazards</td>
<td>C</td>
</tr>
<tr>
<td>SD2</td>
<td>Selection of appropriate dead, imposed and wind loads</td>
<td>C</td>
</tr>
<tr>
<td>SD3</td>
<td>Safety factors, work quality and testing</td>
<td>C</td>
</tr>
<tr>
<td>SD4</td>
<td>Design and assembly, incl. foundations and building movement</td>
<td>C</td>
</tr>
<tr>
<td>Part 3</td>
<td>Fire Safety</td>
<td></td>
</tr>
<tr>
<td>FS1</td>
<td>Principles of the behaviour of fire</td>
<td>C</td>
</tr>
<tr>
<td>FS2</td>
<td>Building design in relation to fire safety</td>
<td>C</td>
</tr>
<tr>
<td>FS3</td>
<td>Conflicting requirements of security and fire safety</td>
<td>U</td>
</tr>
<tr>
<td>Part 4</td>
<td>Construction Technology and Sustainability</td>
<td></td>
</tr>
<tr>
<td>CT1</td>
<td>Construction processes and principles applicable to new buildings</td>
<td>C</td>
</tr>
<tr>
<td>CT2</td>
<td>Construction processes and principles applicable to existing buildings</td>
<td>C</td>
</tr>
<tr>
<td>CT3</td>
<td>Alterations and improvements, incl. rehabilitation, preservation and conservation</td>
<td>Ap</td>
</tr>
<tr>
<td>CT4</td>
<td>Use and testing of materials</td>
<td>Ap</td>
</tr>
<tr>
<td>CT5</td>
<td>Sustainability issues</td>
<td>Ap</td>
</tr>
<tr>
<td>Part 5</td>
<td>Building Services and Environmental Engineering</td>
<td></td>
</tr>
<tr>
<td>BS1</td>
<td>Building services affecting energy, insulation, water, drainage and noise</td>
<td>C</td>
</tr>
<tr>
<td>BS2</td>
<td>Ventilation, lighting, heating, electrical and LZC technologies</td>
<td>C</td>
</tr>
</tbody>
</table>

Table 1.1 Approved Inspector Knowledge Based Matrix (CIC, 2016)

The Construction Industry Council Approved Inspectors Register, CICAIR, key that is visible on the right hand side of the matrix is shorthand for the following expected competencies required by the CIC.
- C = Comprehensive. The individual has sufficient knowledge of the subject to make most decisions without specialist assistance
- U = Understanding. The individual has sufficient knowledge of the complexities involved in order to control the work of others
- Ap = Appreciation. The individual has a general background knowledge of the subject but requires the specialist input of others when tackling the work
- Aw = Awareness. The individual has a superficial knowledge of the subject

CIC (2016)

The author holds that such a matrix forces prospective AI’s to critically evaluate their own strengths and weaknesses. The realisation of such knowledge based weakness then forms the backbone of a successful company as it creates a scenario where experts are engaged periodically, as and when required.

Applicants must pay a non-refundable fee of £5000.00 plus VAT when lodging their application. If successful they are then liable for the following ongoing costs:

- £1000.00 plus VAT yearly subscription fee or 0.9% of turnover, whichever is greater
- £2000.00 plus VAT audit fee

AI’s are subject to 2 audits within their first 5 years of operation with subsequent audits within each 5 year approval period.

CIC (2016)

Once all of the pre-qualification criteria are approved the candidates are interviewed on their stated competencies by an Approved Panel Interview Committee. Candidates may be requested to attend follow-up interviews if additional information is required, (CIC, 2016).

It must be noted that AI’s are competent individuals or companies and, most importantly, are independent of the Architect/Client/Contractor relationship. They are fully insured professional bodies and as such no vested interests apply.

Types of Application
There are two types of application that can be made. A Building Regulations application involves submitting a form, fee and full plans showing all construction elements and the project details that will ensure it meets the building regulations. The LA will check the plans, consult appropriate agencies such as drainage, water, sewerage, etcetera, and return a decision within five weeks. Any one of the following responses may be received:

- Request for further information or detail change
- Conditional approval
- Full approval

A Building Notice application notifies the LA of an intention to commence works. This type of notice must be made 48 hours prior to such works taking place. This allows certain types of minor works to get underway with inspections happening as the works progress. It is important that this process is used for permitted works only as works that do not meet the regulations will have to be altered. Extremely non-compliant works will have to be razed to the ground and re-built.

**Staged Inspection**

Both Building Regulations application and building notices require periodical inspection of the works by building inspectors. The works must be inspected and signed off at the following stages:

- Commencement
- Excavation for foundations
- Damp proof course laid
- Oversite ready for concreting (with damp proof membrane laid if appropriate)
- Drains laid and visible for checking layout and construction
- Drains backfilled and ready for testing for water tightness
- Structural timbers
- First fix/insulation
- Occupation, normally only relevant when part of a building is finished, for example a flat
- Completion of the whole job

Bristol City Council (2015)
Completion Certificate

Qualifying projects will receive a completion certificate within 8 weeks of completion of the building work as long as it complies with building regulations, (GOV.UK, 2016)

Europe

Building Regulation Control

Visscher (1993) published a study on Building Control in 5 European countries. They were the United Kingdom, France, Germany, Denmark and the Netherlands. In it he stated the objectives for drawing up Statutory Building Regulations:

- Protecting citizens against the consequences of building
- Monitoring a minimum quality of the housing stock
- Encouraging harmonisation by standardization of terminologies, methods of calculation and technical specifications to promote efficiency in building and to keep the market open

Systems of Regulations, such as the TGD’s, are developed on foot of these objectives which set out a minimum level of technical requirements that must be met by all new construction.

Visscher (1993) found that the system of BRC in operation throughout the 5 countries firstly awarded planning permission and secondly performed on-site inspections to ensure that construction was as per permissions received.

Further studies by Meijer and Vischer (2003) published findings in relation to 10 countries and their system of BRC in an attempt to decide on the most appropriate system of BRC for the Netherlands.

The countries were as follows; Netherlands, Denmark, Germany, Belgium, France, England, Wales, Norway, Sweden and Australia.

At this stage all were leaning towards the utilisation of private companies for BRC. Meijer and Visscher (2003) found that ‘the main motivations for other countries to adapt their systems included the desire to increase the quality of the building control and to diminish the administrative burden for applicants’.
The exception to this was the system of BRC in Belgium and France. Due to a highly influential Insurance sector it was found that the LA’s perform little or no on-site inspections. This led them to make the following statement:

‘This means that there is a category of construction works that, in the absence of control by private organizations, are not controlled at all’

Meijer and Visscher (2003)

The research that Meijer and Visscher published shows that many European countries invoke a model of BRC similar to that found in the UK and NI whereas the system that is currently utilised throughout France and Belgium is one that is quite similar to the ROI. Their statement as relates to Belgium and France could equally be paraphrased for the ROI in respect of projects where BCAR does not apply or has been opted out of.

Conclusion

Chapter 2 has given an in-depth review of the various BRC procedures that are currently in use, firstly throughout the ROI and secondly, throughout the UK and NI.

Brief reference was also drawn to mainland Europe as a comparative analysis in an attempt to provide a level of context.

The author has made specific note to the dwelling types that BCAR either does not apply to or can be opted-out of. The fact that the system of BRC that applies to these dwellings is the pre-BCAR system of self-regulation and reliance on opinions of compliance is a salient one as this will form the tenet of both highlighting the differences between the ROI and the UK and NI systems and the survey questionnaire in Chapter 5.

Chapter 3 will focus on the shortcomings of the ROI system of BRC and will endeavor to show that the system that is currently in use in the UK and NI is vastly superior and removes the eventuation of vested interests. It will also serve to highlight a series of obvious questions that will then form the basis of the survey questionnaire.
Chapter 3 – Synopsis

Introduction

Chapter 2 synopsised the current state of BRC throughout both the ROI and the UK and NI. Throughout the ROI it detailed a system that commenced with a self-regulatory structure but moved to a much more stringent system under BCAR (2014) that sought to create a system of checks and balances in an attempt to ensure compliance with regulations. It made specific note to the dwelling types that BCAR either does not apply to or can be opted out of that are listed below.

- Domestic extensions that are less than 40m2 in size
- New single dwellings
- Domestic extensions greater than or equal to 40m2

The fact that BCAR does not apply to or can be opted out of in respect of the dwellings listed above is pivotal to an overall tenet of this dissertation document. The author holds that a regulatory structure that does not apply to certain dwellings and that can be opted out of in respect of others does not constitute good governance and as such is not fit for the purpose for which said structure was designed.

Chapter 2 also detailed a system that is in use throughout the UK and NI that is LA lead, therefore providing guidance and detail from the highest level of knowledge that then naturally filters down through the DT to the GC performing the work on site. By listing the types of projects that require the aptly named Building Regulation Permission it was shown quite clearly that all building works require the same said permission in order to proceed on site.

Chapter 3 will discuss the shortcomings of the system of BRC that is currently in use in the ROI, particularly in light of the system applied in the UK and NI. The author holds that this system is vastly superior to that applied in the ROI in all aspects notwithstanding the obvious shortcomings that will be outlined below.

Chapter 3 will also seek to create a series of naturally occurring questions that should, in essence, highlight themselves. The questions will then form the basis of the questionnaire that will be sent out to various respondents in an attempt to ascertain their views on the issues raised.
Discussion

The Royal Institute of the Architects of Ireland, RIAI, welcomed the increased regulation that BCAR strove to achieve.’ The RIAI supports better building standards and will continue to engage…..to strengthen the system in the interests of consumers’ (Mandal, 2014). However certain shortcomings were noted, namely the following;

- Lack of appropriate independent oversight - to support those tasked with compliance
- Absence of mandatory project insurance - in line with international best practice
- Lack of clarity as to how the regulations will impact on self-builders

Mandal (2009)

Engineers Ireland, EI, stated that ‘the new building control regime finally brings into being a system to improve compliance with the Building Regulations which was envisaged by the Building Control Act 1990, (Engineers Ireland, 2014)

The above statements, from two stalwart bodies concerned with both construction and construction technique show that the regulatory system that was introduced by BCAR in 2014 was welcomed as an improvement on the vastly inferior system of self-regulation that existed prior. However it is important to note that the RIAI statement lists shortcomings and the EI statement contains the word ‘improve’ with regard to compliance. The author holds that the requirement for compliance with BR’s should contain no such impediments and therefore wholly ensure compliance.

A main tenet of this dissertation document is on the areas of the construction that BCAR either does not apply to or can be opted-out of, namely the following:

- Domestic extensions that are less than 40m2 in size
- New single dwellings
- Domestic extensions greater than or equal to 40m2

Dwellings that fit the above criteria and therefore either do not come under the remit of BCAR or have availed of the opt-out option revert to the system of self-regulation and opinions on compliance with building regulations that existed prior to the adoption of BCAR.
This is a less than satisfactory situation. Walsh (2009) states that ‘with regard to Private Construction in Ireland… Building Control Authorities in Ireland are, purposefully, not sufficiently resourced to be ‘effective’. This viewpoint was seconded by Phelan (2014) who states that ‘compliance within the building industry was/is basically self-regulation or ‘light touch’ with limited independent inspection’ and furthermore that ‘opinions on compliance with Building Regulations were churned out for a fee, with compliance assured by an ‘opinion’ certifying the works’.

O’Connor (2014) states that ‘building owners are usually driven by project cost........building owners and clients seek to ignore their responsibilities under the Building Regulations in order to save money. This could have the effect of building owners attempting to compel assigned certifiers into certifying a building that may not be fully compliant’.

It was and is a commonly held belief within the construction industry that self-regulation is an oxymoron and one that cannot exist within the sector. Such fiascos as Priory Hall and Longboat Quay that have seen thousands of citizens discommoded from their homes were as a direct result of such poor regulatory practice. It was a combination of this belief and such fiascos that lead to the introduction of BCAR in 2014.

Comparing and contrasting this to the system of regulation that exists in the UK and NI shows immediate and obvious discrepancies. The requirement for Building Regulation Permission creates a scenario where the correct approach and detail is applied to each situation. Once it is completed on site it must then be signed off by a Local Authority representative or AI that has no link to the contractor, the architect or the client in terms of sign-off or consideration. On paper, it defines a pure system that is concerned with the completion of fully compliant projects.

The dwellings, as listed, need to rely on a pre-BCAR system of self-regulation which the author holds is quite utopian in the extreme. The client, or end user where property changes hands, relies on an Opinion on Compliance with Building Regulations from an industry professional. As previously stated, this is a document which states that the professional was satisfied that the project was compliant if the contractor/developer had built in accordance with the drawings and specifications so produced. Notwithstanding the existence of vested interests in this scenario, this also represents an image of frantically closing the stable door as per the infamous analogy.
Note that the author does not wish to infer the existence of widespread flaunting of BR’s, more so to highlight that the system that exists in the UK and NI removes any catalyst for such a scenario to occur.

CIRI was created ‘to provide the public with a register of experienced and competent industry professionals’. Competence was to be ensured by both experience and, most importantly, a requirement to partake in continuous professional development on an annual basis. To date the register remains voluntary but the author agrees that, should it become mandatory, it would serve to improve the general competence of those working in the construction sector.

The system of BRC that is utilised throughout the UK and NI requires all building projects to apply for Building Regulation Permission prior to commencement on site. There is also a Statutory Requirement for staged inspections on each and every site to ensure compliance with BR’s.

The pre-BCAR system of self-certification that the dwellings as listed revert to, are governed by standards that aim to inspect 12-15% of all projects. The post-BCAR standards undertake to inspect an appropriate amount of projects the level of which is ‘informed by the risk analysis of commencement notices submitted’. The author holds that the very fact that an analysis of the post-BCAR compliance issues found shortcomings that related to every section of the TGD’s is indicative of a system of compliance that cannot work.

There are major shortcomings between the qualifications required to fulfil the role of an AC throughout the ROI and that of an AI throughout the UK and NI. The author holds that the individual or firm that is responsible for BRC must be required to show complete competence with BR’s and their knowledge thereof. University qualifications should not deem acceptance, complete knowledge of the BR’s and their application should ascertain who is suitable to fulfil this role.

An overall tenet of this dissertation document is to ascertain if there is a requirement throughout the ROI for the introduction of a top-down LA lead approach to BRC similar to that currently utilised throughout the UK and NI. As such the authors stated position that would see responsibility for overseeing compliance with BR’s resting with the LA would, at face value, seem to concur with those of the industry experts quoted above.
Note that it is the view of the author that the LA should bear no responsibility for any GC. If a system similar to that utilised throughout the UK and NI were to be adopted in the ROI it should be based on knowledge and competence alone, namely transferring it from those who have it to those who do not.

There is ample subject matter throughout the above discussion to create a series of survey questions that will be sent out to industry professionals in an attempt to ascertain if such a requirement exists. The questions will range from general to specific and will focus on the following:

- Respondents knowledge of the BR’s
- Whether or not the respondent is satisfied that the principles of BCAR either do not apply to or can be opted out of certain circumstances
- Whether or not the respondent is satisfied with the optics that prevail due to the vested interests that may prevail throughout the Architect/Client/Contractor relationship
- Is the current system of BRC that exists throughout the ROI fit for purpose?
- Would the system of BRC that exists throughout the UK and NI ensure greater compliance with regulations?
- Would the ROI benefit from a similar inspection system?
- Is there a consistent level of knowledge with regard to BR’s among GC’s?
- What is the reason for this?
- Who is best placed to ensure compliance with BR’s?

The author holds that the above series of topics have naturally created themselves as a direct result of issues raised throughout the literature review and synopsis chapters of this document. As such they hold true to both aims of this dissertation document which are to prove that the system of BRC in respect of dwellings where BCAR does not apply or can be opted out of is not fit for purpose and to ascertain if there is a requirement throughout the ROI for the introduction of a top down LA lead approach to BRC similar to that currently utilised throughout the UK and NI.
Conclusion

Chapter 3 has served to highlight the shortcomings of BRC throughout the ROI. It focused not only on the dwellings where BCAR either does not apply or can be opted out of but also on the intertwined links and vested interests that exist and can overlap throughout the system that is utilised in the ROI.

Particular attention was drawn to the 100% inspection rate of projects throughout the UK and NI which asks serious questions of the 12-15% where BCAR either does not apply or can be opted out of.

It focused on the level of knowledge required to fulfill the role of AI throughout the UK and NI and the general competence required.

Chapter 4 will focus on the research methodologies that will be utilised in the compilation, collection and collating of the data that will form the basis of the eventual findings of this dissertation document.

It will publish the findings of the research as collected and complete an in-depth analysis of all data as collected.

Chapter 4 - Research Methodology, Findings and Results

Introduction

Wisker (2001) states that research is about asking and beginning to answer questions, seeking knowledge and understanding of the world and its processes.

Groves et al (2009) explain that “ology” is Greek for “the study of”; therefore research methodology is the study of research methods. They extrapolate this view by stating that it is actually the study of the source of error in surveys and how to make the numbers produced by the surveys as accurate as possible.

The type of research that will be utilised when attempting to explore this topic is the following:

- Exploratory Research

Wisker (2001), states that exploratory research ‘sets out, using a variety of methods, to discover whether what is in question is true or not’.
This is especially apt as the aims of this dissertation document are as follows:

- to prove that the system of BRC in respect of dwellings where BCAR does not apply or can be opted out of is not fit for purpose
- to ascertain if there is a requirement throughout the ROI for the introduction of a top-down LA lead approach to BRC similar to that currently utilised throughout the UK and NI.

Wisker (2001) further states that ‘exploratory research is commonly used when new knowledge is sought’. This research will seek to explore the opinions of an indicative sample of industry professionals. The author aims to collect and collate those opinions in an attempt to prove, or indeed disprove, the aims as noted above.

The following research methodologies will be utilised to collect and collate data as part of this dissertation document;

- Quantitative
- Qualitative

Quantitative

Quantitative research seeks to use measurable data to quantify opinions and discover behavioural patterns. Groves et al (2009) describe a survey as a systematic method for gathering information from entities for the purposes of constructing quantitative descriptors of the attributes of the larger population of which the entities are members.

The following are data collection methods that can be utilised when undertaking Quantitative Research:

- Questionnaires
- Surveys
- Experiments

Qualitative

Qualitative research seeks to gain an understanding of the underlying reasons for stated opinions. Wisker (2001) holds that they can provide both the detailed information that you set out to collect and some fascinating contextual or other information. Ezzy (2002) states that it is ‘seductively easy’ to discover what we wish to find and that this should
be resisted by listening ‘attentively to the data….and as a consequence reveal new understanding and build new theory’.

The author agrees with these points of view and as such will attempt to enter into dialogue with an open mind.

The following are data collection methods that can be utilised when undertaking Quantitative Research:

- Interviews
- Focus Groups
- Observation
- Documents

**Research Method**

**Approach**

Davies (2007) lists a series of basic rules to follow when conducting a research project that can act as parameters to ensure a successful result. They are as follows:

- Keep it simple
- Don’t try and do too much
- Patience is a virtue
- Planning is crucial

The author will seek to keep to these very simple but important truisms. The focus of this dissertation document is on the very specific areas where BCAR does not apply or can be opted out of and whether or not there is an appetite among construction professionals throughout the ROI to adopt the system of BRC that is utilised throughout the UK and NI. This will form the basis for the research that will be carried out.

**Mixed Methods**

A mixed method approach combines both qualitative and quantitative strategies, (Cresswell, 2009). The procedure that can be followed when utilising mixed methods are as follows:
• Sequential
• Concurrent

Sequential procedure involves collection of quantitative data and following this up by collection of qualitative data. Concurrent procedures involve collection of both data streams simultaneously.

The research method that the author will adopt will be that of mixed methods by sequential data collection.

The use of a quantitative method of data collection will enable the author to gain objective information with regard to respondents own knowledge, opinions and personal point of view in relation to each point as raised.

The data received will allow for interviews to be carried out which will allow the author to perform a more in-depth analysis.

Sampling

Wisker (2001) defines a sample as a selected and chosen group upon which you carry out your research……they are chosen to indicate the larger whole of which they are just a small part. It is important to achieve a truly representative sample so that the results can be applied against the complete sector.

Davies (2007) suggests that the theory of strategic sampling be applied when assessing who to interview. It is his opinion that you “ are aiming quite explicitly to select people, objects, situations or experiences that will help you explore your question, enable you to develop theoretical ideas and give you the opportunity to test them before reaching a conclusion”.

The author has chosen to focus on members to the following professions:

• Architects
• Engineers
• Quantity Surveyors

The individuals that make up these core construction professions are those that are required to design, cost manage and administer the vast majority of domestic construction contracts throughout the ROI. The author has chosen these professions as the individu-
als that make up these professions are those that would have been required to produce opinions on compliance pre BCAR and as such will still have to in the case of dwellings where BCAR does not apply or has been opted out. Therefore the author holds that they are an indicative sample that are, therefore, a true representation of widely held industry opinion.

**Technique**

As discussed the following research methodologies will be utilised to collect and collate data as part of this dissertation document;

- Quantitative
- Qualitative

**Quantitative**

A series of questions will be created that are in keeping with the overall tenet of this dissertation document. The original drafts, 1-3, will each be subject to a pilot study. This will consist of the draft being sent both to peers and industry professionals to garner feedback, both positive and negative, in an attempt to ensure that the final questionnaire is balanced and fair when presented to the target audience. Each draft will be piloted against differing individuals in an attempt to cultivate honest and unbiased feedback.

A survey questionnaire will be sent out via an available medium, (www.surveymonkey.com), to individuals and firms that fit within the parameters chosen. The resulting data will be exported into this dissertation document and reviewed accordingly.

**Qualitative**

The author will seek to interview certain individuals to ascertain the reasons behind the empirical data received from the survey. For example, if 100% of respondents state that they would like BRC to be LA lead, the interview will seek to understand why. Is there a self-absorbed reason in that the respondent him/herself doesn’t want the responsibility, or do they feel that the LA is best placed to provide this service. Likewise, if 20% believe that the GC is best placed to ensure compliance, a representative of this group-
ing would also be interviewed to ascertain his/her position and assess the merits/demerits of this also.

The author will seek to ask a series of open and closed questions. As a technique the author will aim to commence the interview with a series of closed questions so that the parameters for possible answers will be quite restricted. As the interview continues, a series of open questions will be introduced as the author seeks to place the interviewee at ease in an attempt to cultivate open and honest answers. At all times the author will have a list of closed questions to hand, if required, so that long rambling answers can be interrupted and chains of thought broken in an attempt to bring the interviewee back on line and specific.

**Ethical Considerations**

The individual responses of survey respondents will be deemed private and confidential and will not be disclosed in a personable manner.

The basic tenet of the interview process requires the interviewee to speak freely and candidly. To that end it may be a pre-requisite that the data answers received from the various interviewees be treated in confidence and the interviewees themselves referred to as Person A, Person B etcetera in the final dissertation.

The author will seek to record all interviews so that the subject matter can be compiled accurately for collation at a later date. If the interviewees are uncomfortable with this option there will be no choice but to take a written record of the answers so given.

It is intended that each interviewee be sent a transcribed version of their interview. Each will have an opportunity to comment on or sign-off on the veracity of the document so produced. This option will be proffered with a strict timeline attached, i.e. should this author receive no comment on the attached draft of your interview it shall be taken as agreed between both parties as correct by such date chosen.

**Survey Questionnaire**

The overall premise of this dissertation document is one in which the author seeks to ascertain if there is a requirement throughout the ROI for the introduction of a top-down LA lead approach to BRC similar to that currently utilised throughout the UK and NI.
The author has also, throughout this document, drawn attention to areas of construction throughout the ROI where BCAR either does not apply to or can be opted-out.

Chapter 3 discussed the salient differences between the systems of BRC currently in use in the ROI and in the UK and NI. A number of questions were raised which the author has used to form the basis of the questionnaire that was sent out to the chosen respondents as set out in the research methodology in Chapter 4.

The survey was sent out to participants through the medium or [www.surveymonkey.com](http://www.surveymonkey.com). This proved apt as all results were collected and collated independently of the author, with all being provided in tabulated form.

The survey was sent out to 42 individuals that are professionals made up of the following:

- Architects
- Engineers
- Quantity Surveyors

The author received feedback that the survey questionnaire was not received in two instances. The author requested a different email address which enabled the survey questionnaire to be re-sent. One individual had opted out of receiving survey questionnaires from the chosen medium, [www.surveymonkey.com](http://www.surveymonkey.com), at some stage in the past and as such the survey questionnaire did not reach his inbox.

A total of 32 completed responses were received resulting in a response rate of 76.19%. The author holds that as such the results achieved are indicative of the thought process of professionals that work in the chosen sectors in relation to the questions as raised.

The questions, answer breakdown and subsequent conclusion of the author will follow below, organised as received.

**Question 1**

Which of the following would you use to describe your working knowledge of the current Building Regulations?

Answered: 32 Skipped: 0
The author opines that the varying responses to this question act as credible evidence that further enforce the overall premise of this dissertation document; that there is a requirement for a top-down LA lead approach to BRC throughout the ROI. Although no individual respondent chose the “poor” option in respect of their knowledge, 68.8% of respondents assert that the level of their knowledge amounted to “fair” or “good”.

The author holds that a complete knowledge of any jurisdictions BR’s would constitute a required skill to enable an individual to competently seek employment and therefore work within a LA’s building control department.

The author contends the pre-qualification criteria required to enable an AI throughout the UK and NI to receive a license to practice lends complete credibility to this view, (criteria available on pages 21-22 of this document).
Question 2

Do you think that it is in the best interests of the general public that the Statutory Certification that is required by the Building Control (Amendment) Regulations, (BCAR), does not apply to “Extensions under 40m2” and can be opted out of for “Self Builds” or “Extensions equal to or greater than 40m2”?

Answered: 32 Skipped: 0

![Bar Chart](image)

**Figure 1.1** Question 2 – Bar Chart

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<td>75.0%</td>
<td>24</td>
</tr>
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<td>Don't know</td>
<td>6.3%</td>
<td>2</td>
</tr>
</tbody>
</table>

**Table 1.3** Question 2 – Survey Responses

It is noteworthy that 75% of respondents feel that it is not in the best interests of the general public that the Statutory Certification that is required under BCAR can be circumvented in respect of the following dwellings:

- Domestic extensions that are less than 40m2 in size
- New single dwellings
- Domestic extensions greater than or equal to 40m2
The author holds that the stated position of the respondents is thoughtful and correct. The dwellings listed above revert to the system of self-certification that existed prior to BCAR’s introduction in 2014. This was a system that was thought to be unfit for purpose, hence the new regulations. It is not clear how the same said system is currently thought to be acceptable in relation to the dwellings listed above.

18.8% of respondents have stated that they feel that it is in the best interest of the public that the same said certifications can be circumvented whilst 6.3% or 2 respondents have stated that they “don’t know”. It will be important to attempt to gauge the thought process from an indicative sample of these individuals. The author will aim to do this as part of the qualitative section of this document as it is important to understand the thought process that is collectively held by 25.1% of respondents.

**Question 3**

Given the nature of the vested interests contained in the Client/Architect/Contractor relationship, is it in the interests of the general public that Opinions on Compliance with Building Regulations in respect of dwellings where BC(A)R does not apply or has been opted out of are requested from said Architect and Contractor?

Answered: 31 Skipped: 1

![Figure 1.2 Question 3 – Bar Chart](chart.png)
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</tr>
</thead>
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</tr>
<tr>
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<td>9</td>
</tr>
<tr>
<td>Don't know</td>
<td>12.9%</td>
<td>4</td>
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</tbody>
</table>

Table 1.4 Question 3 – Survey Responses

Question 3 deals with the so-called “vested interests” that can be assumed to exist when the individual professionals, Architect or Contractor, that are carrying out work on behalf of a client. Such professionals are beholden to that client for payment; a prerequisite of which is certification i.e. the Opinion on Compliance of such works with current BR’s.

The background theory to the question is that if such an opinion is required to release payment it follows suit that, in certain situations, the same said opinion can be produced solely to release the payment.

Note that this theory is by no way intended to cast aspersions on professionals that consider themselves ethical in every sense of the word. It is, in fact, a two way street. It can also be theorised that clients who ignored the advice as given from professionals that they hired during a project then request such opinions on compliance prior to payment being released.

58.1% of respondents feel that it is adequate that such opinions are requested in respect of the dwellings where BCAR does not apply as listed in the question. 29% feel that it is inappropriate whilst 12.9% state that they don’t know.

It will be important to attempt to gauge the thought process from an indicative sample of these individuals. The author will aim to do this as part of the qualitative section of this document. The author holds that, notwithstanding a professional’s individual opinion on the matter, the question deals with an overall position on the optics of the current situation in respect of these dwellings.

As stated previously, the overall premise of this dissertation document is one in which the author seeks to ascertain if there is a requirement throughout the ROI for the introduction of a top-down LA lead approach to BRC similar to that currently utilised throughout the UK and NI.
Therefore the author holds that should such an approach be introduced throughout the ROI the current situation in respect of these dwellings as set out in Question 3 would fail to materialise therefore removing any hint of so-called vested interests.

**Question 4**

Questions 2 and 3 represent the current operative state of Building Regulation Control throughout the Republic of Ireland, (ROI), in respect of dwellings where BC(A)R does not apply or has been opted out of.

Taking into account that the regulations exist to protect members of the general public, is it fair to state that the current system of building control in respect of these dwellings is not fit for purpose?

Answered: 32 Skipped: 0

![Bar Chart](image)

**Figure 1.3 Question 4 – Bar Chart**

<table>
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<th>Answer Options</th>
<th>Response Percent</th>
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</tr>
</thead>
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<td>4</td>
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<td>Don't know</td>
<td>3.1%</td>
<td>1</td>
</tr>
</tbody>
</table>

**Table 1.5 Question 4 – Survey Responses**
The author sought to create a direct correlation between Question 4 and the topics previously raised in Questions 2 and 3. To create a background for the occasional peruser of this document it is necessary to re-cap on the following subject matter that lead to Question 4:

Question 2 asked the following:

Do you think that it is in the best interests of the general public that the Statutory Certification that is required by the Building Control (Amendment) Regulations, (BCAR), does not apply to “Extensions under 40m2” and can be opted out of for “Self Builds” or “Extensions equal to or greater than 40m2”?

Question 3 followed up with:

Given the nature of the vested interests contained in the Client/Architect/Contractor relationship, is it in the interests of the general public that Opinions of Compliance with Building Regulations in respect of dwellings where BC(A)R does not apply or has been opted out of, are requested from said Architect and Contractor?

As previously stated, the respondents to this survey questionnaire are professionals made up of the following:

- Architects
- Engineers
- Quantity Surveyors

It is important to note that these respondents are the individual professionals that are ethically bound to advise prospective clients that they can opt-out of the Statutory Certification required by BCAR or indeed that the same said certification is not required in respect of the following dwellings:

- Domestic extensions that are less than 40m2 in size
- New single dwellings
- Domestic extensions greater than or equal to 40m2

Taking all of this into account it is very telling to note that 84.4% of respondents to Question 4 feel that it is fair to state that the current system of BRC in respect of these dwellings is not fit for purpose when assessed both in terms of the dwellings that BCAR
does not apply to or can be opted-out of and also in respect of Opinions of Compliance that are requested from parties within the Client/Architect/Contractor relationship of any given project.

12.5% of respondents stated that they consider that the current system of BRC throughout the ROI is fit for purpose whilst 3.1% stated that they simply don’t know. It will be important to attempt to gauge the thought process from an indicative sample of these individuals. The author will aim to do this as part of the qualitative section of this document.

**Question 5**

The system of Building Regulation Control that is standard practice in the United Kingdom and Northern Ireland requires inspection and sign-off at all key stages of all building projects by Local Authority Inspectors, therefore removing the pressure that may be brought to bear under the ROI system in respect of dwellings where BC(A)R does not apply or has been opted out of.

In your opinion, does this system provide greater protection for the general public and ensure full compliance with Building Regulations?

Answered: 32 Skipped: 0

![Figure 1.4 Question 5 – Bar Chart](image-url)
<table>
<thead>
<tr>
<th>Answer Options</th>
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<td>2</td>
</tr>
<tr>
<td>Don't know</td>
<td>0.0%</td>
<td>0</td>
</tr>
</tbody>
</table>

*Table 1.6 Question 5 – Survey Responses*

Question 5 mirrors the overall premise of this dissertation document; one in which the author seeks to ascertain if there is a requirement throughout the ROI for the introduction of a top-down LA lead approach to BRC similar to that currently utilised throughout the UK and NI.

93.8% of respondents state that the system of BRC that is currently utilised throughout the UK and NI would provide greater protection for the general public and ensure full compliance with Building Regulations.

As previously stated, the respondents to this survey questionnaire are professionals made up of the following:

- Architects
- Engineers
- Quantity Surveyors

It is important to note that these respondents are the individual professionals that are required to sign off on Opinions on Compliance with Building Regulations in respect of dwellings where BCAR does not apply or has been opted-out of, namely the following:

- Domestic extensions that are less than 40m² in size
- New single dwellings
- Domestic extensions greater than or equal to 40m²

The current situation in respect of the above dwellings, as detailed in Chapter 2, fashioned a scenario whereby a professional signing off on a building project produces a so-called Opinion on Compliance with both the planning permission so received and the building regulations. Simply put, this is a document which stated that the professional is satisfied that the project was compliant if the contractor/developer had built in accordance with the drawings and specifications so produced. The professionals approach is thus, he or she is not or cannot be on site all day/every day and as such cannot be expected to sign off on a project as built.
The author holds that the results of Question 5 shows that there is an appetite among industry professionals to accept the introduction of a system of BRC whereby compliance with the BR’s is within the remit of the LA Building Control section therefore removing any pressure that may be brought to bear under the ROI system. It will be important to attempt to gauge the thought process for this choice from an indicative sample of these individuals as the author wishes to understand whether such a choice is borne from the general unwillingness among professionals to bear responsibility or merely that it would facilitate the removal of an antiquated system.

**Question 6**

Do you think that the Republic of Ireland would benefit from a similar inspection system?

Answered: 31 Skipped: 1

![Bar Chart](image)

**Figure 1.5** Question 6 – Bar Chart

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Response Percent</th>
<th>Response Count</th>
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<tbody>
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<td>Yes</td>
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<td>No</td>
<td>3.2%</td>
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</tr>
<tr>
<td>Don't know</td>
<td>6.5%</td>
<td>2</td>
</tr>
</tbody>
</table>

**Table 1.7** Question 6 – Survey Responses
The subject matter of this question relates to Question 5 which dealt with whether or not the system of BRC that is standard practice in the UK and NI that requires inspection and sign-off at all key stages of all building projects by Local Authority Inspectors would provide greater protection for the general public and ensure full compliance with Building Regulations.

90.3% of respondents to this survey questionnaire state that the ROI would benefit from the introduction of the same system of BRC that is currently in use in the UK and NI. The author contends that this is an overwhelming affirmation that calls for the introduction of a similar system throughout the ROI.

6.5% of respondents did not have an opinion on this question while 3.2% of respondents stated that they felt that the ROI would not benefit from the introduction of such a system. As stated previously, it will be important to attempt to gauge the thought process from an indicative sample of these individuals. The author will aim to do this as part of the qualitative section of this document.

**Question 7**

In your experience, have you found that there is a consistent and competent level of knowledge with regard to Building Regulations among General Contractors?

Answered: 32 Skipped: 0

![Bar Chart](image-url)
<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Response Percent</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
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<td>No</td>
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</tr>
<tr>
<td>Don't know</td>
<td>3.1%</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 1.8 Question 7 – Survey Responses

Question 7 aimed to ascertain the consistency of the level of knowledge of Building Regulations among GC’s as perceived by the respondents of this survey questionnaire. The respondents generally fulfil the role of contract administrator on building projects and as such the author felt it was quite important to ascertain the level of perceived knowledge of regulations among contractors. This goes hand in hand with the system that produces Opinions of Compliance with Building Regulations and therefore is central to the overall premise of this dissertation document in which the author seeks to ascertain if there is a requirement throughout the ROI for the introduction of a top-down LA lead approach to BRC similar to that currently utilised throughout the UK and NI.

68.8% of respondents feel that the level of knowledge of Building Regulations among General Contractors is neither consistent nor competent. This is quite staggering when viewed in respect of dwellings where BCAR does not apply or has been opted-out of, namely the following:

- Domestic extensions that are less than 40m² in size
- New single dwellings
- Domestic extensions greater than or equal to 40m²

As stated earlier, the above dwellings revert to the pre BCAR system of self-certification where an Opinion of Compliance with Building Regulations is expected to be produced.

It is at this stage unclear how such an opinion can be produced if 68.8% of respondents, of a sample that the author feels to be indicative of the thought process across the industry, feel that the level of knowledge required of GC’s is not present. This must be viewed negatively in light of the fact that the same said opinion. No onus is placed on the professional to inspect building works. As previously stated, this is merely a document which states that the professional was satisfied that the project was compliant if the contractor/developer had built in accordance with the drawings and specifications so produced. It will be important to attempt to gauge the thought process from an indica-
tive sample of these individuals. The author will aim to do this as part of the qualitative section of this document.

28.1% of respondents state that there is a consistent and competent level of knowledge among GC’s that they have worked with whilst 3.1% state that they do not know.

The author holds that it is refreshing that 28.1% of GC’s are considered competent, however the overwhelming percentage of those that are deemed to be incompetent with regard to Building Regulations serves to further enforce the need for a top-down LA lead approach to BRC similar to that currently utilised throughout the UK and NI.

**Question 8**

In your opinion, which of the following best describes General Contractors in relation to the attention to detail that is required when ensuring compliance with current Building Regulations throughout the Republic of Ireland?

Answered: 32 Skipped: 0

![Figure 1.7 Question 8 – Bar Chart](image-url)
<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Response Percent</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always up to date with current Building Regulations and best practice</td>
<td>12.5%</td>
<td>4</td>
</tr>
<tr>
<td>Require constant direction to ensure complete compliance</td>
<td>50.0%</td>
<td>16</td>
</tr>
<tr>
<td>Over-reliance on historical work practices</td>
<td>37.5%</td>
<td>12</td>
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</table>

**Table 1.9 Question 8 – Survey Responses**

Question 8 aimed to ascertain the various levels of competency with BR’s among GC’s with 12.5% of respondents stating that they consider the GC’s that they are involved in a professional capacity with, to be always up to date with current BR’s and best practice.

The response percentages as returned from Question 8 strike a note of discord with those received from Question 7 where 28.1% of respondents state that there is a consistent and competent level of knowledge of BR’s among GC’s.

It will be important to attempt to gauge the thought process that resulted in this anomaly from an indicative sample of these individuals. The author will aim to do this as part of the qualitative section of this document.

A combined 87.5% of respondents felt that the GC’s they worked with either required constant direction to ensure complete compliance or suffered from an over-reliance on historical work practices.

The author holds that this is further evidence that what is required throughout the ROI is top-down LA lead approach to BRC similar to that currently utilised throughout the UK and NI in respect of dwellings where BCAR does not apply or has been opted-out of, namely the following:

- Domestic extensions that are less than 40m2 in size
- New single dwellings
- Domestic extensions greater than or equal to 40m2

The author opines that if this were to eventuate it would result in the Building Control section of the LA becoming de-facto educators of the BR’s as a situation would develop where correct detailing of building elements would funnel their way from the LA to the operatives on the ground. Whilst such a system would not provide, or be expected to
provide, supervision for any GC, it would be a vast improvement on the system of self-certification that still exists in respect of the dwellings listed above.

**Question 9**

The very existence of Building Regulations is to protect the general public, therefore all required certification needs to be beyond reproach. Taking this into account, which of the following is best placed to ensure that there is total compliance?

Answered: 32  Skipped: 0

![Bar Chart](image)

**Figure 1.8** Question 9 – Bar Chart

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Response Percent</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Contractor</td>
<td>15.6%</td>
<td>5</td>
</tr>
<tr>
<td>Architect</td>
<td>9.4%</td>
<td>3</td>
</tr>
<tr>
<td>Local Authority Building Control</td>
<td>75.0%</td>
<td>24</td>
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**Table 2.0** Question 9 – Survey Responses

75% of respondents to this survey questionnaire state that the LA is best placed to ensure that there is total compliance in respect of BRC.

The author holds that this is in keeping with the overall premise of this dissertation document which seeks to ascertain if there is a requirement throughout the ROI for the in-
troduction of a top-down LA lead approach to BRC similar to that currently utilised throughout the UK and NI.

9.4% stated that they believed the Architect was best placed to ensure total compliance whilst 15.6% thought that the responsibility lay with the GC. It is the opinion of the author that whilst there is no reason as to why the GC should not make all attempts to ensure compliance, there should be a system of checks and balances to ensure that compliance is attained.

Once again it will be important to attempt to gauge the thought process from an indicative sample of these individuals. The author will aim to do this as part of the qualitative section of this document.

Interviews

The author used the data received from the survey questionnaire to create a series of interview questions in an attempt to ascertain the thought process of the questionnaire respondents. The overall goal of the qualitative stage is that of triangulation, i.e. to confirm and re-inforce the findings from the survey questionnaire.

A total of 6 interviews were carried out. The author attempted to procure an indicative sample by choosing 2 interviewees from each of the original categories:

- Architects
- Engineers
- Quantity Surveyors

In a further attempt to create balance each category included one individual that was the Principal of their company and a further individual that was an employee of a different company that also fit that category.

The author holds that this is not only representative but required as the factors that influence decision making are quite different when viewed as an Employer as opposed to an Employee.

The author also chose to decide which individuals to interview based on their survey responses. This was deemed necessary as there were a high percentage of respondents whose general opinion could be deemed quite equal. Had 6 individuals been chosen at
random, it is quite conceivable that all could have been from this cohort of equal opinion, therefore creating an inherent bias to the eventual conclusion.

In the interests of each interviewee’s privacy it will not be stated as to which are Employer’s and which are Employee’s.

In respect of all of the Interviewees’ it is noted that their views as held are their own and should not be confused with those of their representative companies should they be employees of such.

The interviews took place in the weeks leading up to the Christmas break in December 2016. Not all interviewees could take place face to face due to constraints on the individual Interviewees time.

The Interviewees’ were as follows:

<table>
<thead>
<tr>
<th>Interview</th>
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<tbody>
<tr>
<td>Date</td>
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<tr>
<td>Name</td>
<td>Interviewee A</td>
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<td>Surveyor</td>
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<tr>
<td>Company Type</td>
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<tr>
<td>Start Time</td>
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<tr>
<td>Finish Time</td>
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Table 2.1 – Interview 1

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<tbody>
<tr>
<td>Date</td>
<td>14/12/2016</td>
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<tr>
<td>Name</td>
<td>Interviewee B</td>
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<tr>
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<td>Engineer</td>
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<td>Start Time</td>
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<tr>
<td>Finish Time</td>
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Table 2.2 – Interview 2
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<tr>
<td>Name</td>
<td>Interviewee C</td>
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<td>Profession</td>
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**Table 2.3** – Interview 3

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<td>Interviewee D</td>
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<tr>
<td>Profession</td>
<td>Architect</td>
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**Table 2.4** – Interview 4

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<tr>
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**Table 2.5** – Interview 5

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<td>Date</td>
<td>22/12/2016</td>
</tr>
<tr>
<td>Name</td>
<td>Interviewee F</td>
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<tr>
<td>Profession</td>
<td>Quantity Surveyor</td>
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<tr>
<td>Company Type</td>
<td>Surveying Services</td>
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<td>Start Time</td>
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<td>Finish Time</td>
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<td>Medium</td>
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**Table 2.6** – Interview 6
**Question 1**

What is your company’s main role?

*Interviewee A (Surveyor)*

Quantity Surveying Services, General Construction Services, Land Surveying and Building Surveying.

*Interviewee B (Engineer)*

Consulting, Civil and Structural Engineering

*Interviewee C (Engineer)*

Consultancy, Structural Engineering and Civil Engineering

*Interviewee D (Architect)*

Domestic and Commercial Architecture

*Interviewee E (Architect)*

Architectural Practice with a focus on Healthcare

*Interviewee F (Surveyor)*

Quantity Surveying, Contract Appraisal and Administration

**Discussion**

Care was taken when choosing appropriate interviewees’ that their combined specialities covered all aspects of construction as related to this dissertation document. This was a direct attempt to ensure that a correct sample was obtained so that results could be deemed indicative of the sector as a whole.

**Question 2**

What percentage of the work undertaken by your company deals with residential construction?

*Interviewee A (Surveyor)*
70%

**Interviewee B (Engineer)**

50%

**Interviewee C (Engineer)**

60-70%

**Interviewee D (Architect)**

90%

**Interviewee E (Architect)**

5%

**Interviewee F (Surveyor)**

90%

**Discussion**

**Interviewee D (Architect)** stated for the record that their current workload compiles 90% residential construction. However they do complete commercial projects and when they arise they can be as large as to encompass 50% of their turnover in any given year.

**Interviewee E (Architect)** stated that they do little or no residential projects. This fact is important in relation to BCAR and its relationship to projects that do not come under its remit or can be opted out of and as such will be discussed later in Question’s 5 & 7.

**Question 3**

The Statutory Certification that is required under BCAR can be circumvented in respect of the following dwellings:

- Domestic extensions that are less than 40m2 in size
- New single dwellings
- Domestic extensions greater than or equal to 40m2
What is your opinion on this?

**Interviewee A (Surveyor)**

My opinion is that there is no point having regulations for one dwelling type if you don’t have regulations for all. Obviously an industrial building is going to have a different level of regulation than a residential building but there is no point having BCAR apply to a 10 house development and not applying to a single dwelling in the vicinity that has opted out of BCAR. All dwellings should be open to the same level of scrutiny.

**Interviewee B (Engineer)**

I feel that no one should be able to opt-out of Statutory Certification. The majority of issues that I have come across in relation to Building Regulations have been in respect of domestic construction. In these cases, clients and contractors alike have been unaware of basic regulations in respect of issues such as fire safety, inadequate ventilation, etc. In these cases it has been a lack of understanding with regard to the guidelines set down in the technical guidance documents coupled with a general lack of supervision of works on site. As such I feel that enabling a scenario where BCAR does not apply or can be opted out of is incorrect and not in the best interests of the end user.

**Interviewee C (Engineer)**

I think that it is quite a silly notion that has created a situation that effectively can have two similar but independently owned houses side by side, one which opted into BCAR and therefore the Statutory Certification that this requires, the other that opted out of BCAR therefore having to rely on the pre-BCAR system of self-certification.

I feel that it will aid the creation of a two-tiered list of contractors. Those that build under the regulatory structure that BCAR has created and those that refuse to work unless the domestic extension or single dwelling is either outside the remit of BCAR or has opted-out of the BCAR process.

**Interviewee D (Architect)**

The opt-out clause is complete nonsense and should not have been introduced at all.

I disagree with the requirement for BCAR at all. I feel that competent architects or professionals should negate the need for BCAR. Once they perform their duties to the
standard that their professionalism requires they can adequately protect their client. However, BCAR can protect the ordinary consumer should they choose to proceed without an Architect.

Overall I feel that BCAR as a system should be government run as currently an Architect and his/her professional indemnity insurance is the last man standing when it comes to liability if all else fails.

**Interviewee E (Architect)**

I do not believe that this is a good idea at all. Compliance with BR’s and their Statutory Compliance requirements should be the same for all projects no matter the size. The option that allows clients to opt out is pointless as these projects revert to the pre-BCAR system of self-regulation. This system had flaws that BCAR sought to address so it is hard to see how it is now deemed suitable for certain dwellings.

It is also quite hard to explain the opt-out mechanism to clients who may be more aware of the level of fees they will save with the net effect of this becoming the main reason for their ultimate decision to opt out.

**Interviewee F (Surveyor)**

Ultimately I feel that this is a poor move for construction in general. A mechanism to opt out should not be allowed at all. The simple fact remains, if a requirement for Statutory Certification exists, it should encompass all works. It then ensures durability of all works which ultimately results in peace of mind for the end user.

**Discussion**

It is apparent from the various answers received that all interviewees’ disagree with the facts that BCAR does not apply to certain projects and can be opted out of in respect of others. It is also in keeping with one of the main themes of this dissertation document in that these specific projects revert to the pre-BCAR system of self-regulation that was previously deemed not fit for purpose and therefore casts aspersions on the system of BRC throughout the ROI in respect of the dwellings noted.

**Interviewee D, (Architect),** questioned the need for BCAR at all, citing how they perform their day to day duties as negating its need. This may be the case, however not all Architects, Engineers or Contractors are created equal and as such the system of Build-
ing Regulation Control that is in operation must be tailored to suit the weakest member of all 3 professions more so the strongest.

It is important to note that all of the various points raised by the interviewees’ such as basic understanding of BR’s, creation of a series of GC’s with varying degrees of competencies etcetera, can all be satisfied by the introduction of a top-down LA lead approach to BRC similar to that currently utilised throughout the UK and NI. This is the overall tenet of this dissertation document, one which the author looks to prove.

**Question 4**

58% of survey respondents feel that the element of vested interests in the Client/Architect/Contractor relationship do not apply when producing Opinions of Compliance with Building Regulations in respect of dwellings where BC(A)R does not apply or has been opted out of, whilst 29% feel that it is an issue.

What is your opinion on this matter?

*Interviewee A (Surveyor)*

I don’t feel that it should be possible that an individual that is involved in the design of the build or someone that is incentivised financially by a build should be put in a position where they can be denied payment unless they produce an opinion on compliance. That situation should not be allowed to arise. The certification required should come from a third party that has no interest of any sort with the client or the DT.

*Interviewee B (Engineer)*

Personally I feel that this comes down to the level of responsibility felt and certification required. The pre-BCAR system of regulation that currently exists in respect of dwellings where BCAR does not apply or has been opted out of was and is based on an opinion on compliance that was developed by professional bodies for their members with the interests of their members at heart. I feel that a third party sign-off would result in a level of comfort which would result in a satisfactory conclusion for all parties involved.

*Interviewee C (Engineer)*

The optics of the situation that exists virtually state that such vested interests can and do exist. Our typical fee structure can be broken down into 60% for construction drawings
and specification and 40% for site visits and certification. I would suggest that this situation could be improved by either engaging with some form of third party certifier that is outside the traditional relationship or possibly with the funds associated with certification of the works being held in an escrow account therefore removing any pressures that could be brought to bear on the certifier.

**Interviewee D (Architect)**

Personally I do not feel that the element of vested interests is an issue. We will not certify works that are not compliant. People choose to build aspects of works that are non-compliant all the time. In this instance we would qualify our certificates and clearly state the elements of the works that are non-compliant. At all times all architects can be called up in front of the RIAI’s professional conduct committee. This is a consequence that we take very seriously indeed.

**Interviewee E (Architect)**

I feel that Architects in general are conscientious and do not sign opinions on compliance lightly. The opinions can also be qualified if needs be. That said, vested interests do occur in this scenario and as such it would be better if this didn’t occur at all. Third party certification would remove the chance of such a scenario arising.

**Interviewee F (Surveyor)**

I feel that vested interests can exist in this scenario. All projects contain works that are completed and closed up between visits by the DT. Therefore the relationships noted in the question are dependent on each other. Both Architect and GC are required to produce Opinions on Compliance and as such the Client expects one. Therefore it can be assumed that this cert is produced whether the works are compliant or not. 3rd party certification of the works would remove this scenario as no vested obligation exists in this scenario.

**Discussion**

There are two important points to note in this discussion piece based on the interview responses.

The first concerns those received from the two Architects, *Interviewees’ D and E*. Architects in general are the professionals that would be most likely to sign Opinions on
Compliance as part of their day to day operations. What has come to the fore is that they feel that they would not accept a scenario where they would bow to pressure to produce such a certificate whether or not payment was due on receipt of such. Such opinion is refreshing however the issue still remains that the Opinion of Compliance has no legal standing and therefore cannot provide any comfort for the end user should works ultimately be proved non-compliant.

The second, as borne out by all other respondents, is that they feel that such vested interests are present and can only be removed by the introduction of 3rd party certification. No aspersions were cast on the veracity of any such certificates produced, merely that optically such vested interests can be presumed to exist and as such should be removed for the betterment of the industry and end user as a whole.

The point as raised by Interviewee F, (Surveyor), is especially pertinent with regard to works that are completed between site visits. As there is no requirement for the individual providing the Opinion on Compliance to inspect the works prior to issuing said certificate, it can therefore be construed that Certificates have been issued throughout the ROI for works that are non-compliant.

**Question 5**

The previous questions represent the current operative state of Building Regulation Control throughout the Republic of Ireland, (ROI), in respect of dwellings where BC(A)R does not apply or has been opted out of. 84.4% of survey respondents state that the current system of building control in respect of these dwellings is not fit for purpose whilst 12.5% state that it is.

What is your opinion on this matter?

*Interviewee A (Surveyor)*

I think the regulations are fit for purpose. I don’t think the process is fit for purpose. I think the regulations are quite high but I feel that the process of sign-off and certification is quite flawed and needs to be addressed.

*Interviewee B (Engineer)*

I don’t believe that the current system of BRC, in respect of the dwellings listed above, are fit for purpose. They revert to the pre-BCAR system of self-certification which Lo-
Local Authority Building Control should inspect in the order of 12-15% of. I would have to state that in 20 years of practice I would have encountered Local Authority Building Control no more than half a dozen times.

**Interviewee C (Engineer)**

I would be of the opinion that the Building Regulations are fit for purpose but enforcement of the regulations and the subsequent certification in respect of the dwellings where BCAR does not apply or has been opted out of is most certainly not fit for purpose. These dwellings revert to the pre-BCAR system of self-certification and opinions on compliance that was previously deemed not fit for purpose. In my experience, I have found that the supervision that is in effect on domestic sites can fall well short of what is required. For example, in my own office the drawings and specifications as sent out are drawn by one engineer and checked by another in every circumstance. A system of self-certification would not work in our office, to that end I feel it would not work on site either.

**Interviewee D (Architect)** I agree that the current system in respect of these dwellings is not fit for purpose as I feel that we do not currently have a system of building control in this country. Any minor attempt by LA’s is merely a box ticking exercise only as drawings are currently viewed for compliance even under BCAR. I feel that BCAR certification places an unconscionable risk on the Architect as all responsibility ultimately resides with him/her. This is unwarranted as Architects or Engineers do not bear responsibility for any GC.

**Interviewee E (Architect)**

I agree fully with the 84.4%. As I stated earlier BCAR was introduced because the previous system of self-certification was deemed not fit for purpose. As our practice focuses primarily on healthcare projects that all come under the remit of BCAR it is quite alien to us at this stage that there are projects currently being undertaken that do not come under its remit. I feel that every project, no matter how small, should conform to equal measures in terms of compliance with BRC.

**Interviewee F (Surveyor)**

The system of Building Control in respect of these dwellings is not fit for purpose. Self-certification does not work, as is well documented throughout several high profile pro-
jects such as Priory Hall and Longboat Quay. Therefore the system of BRC that was in place failed in these cases.

**Discussion**

All interviewees’ state that the current operative state of BRC throughout the ROI in respect of the following dwellings is not fit for purpose:

- Domestic extensions that are less than 40m2 in size
- New single dwellings
- Domestic extensions greater than or equal to 40m2

It was interesting to note that as the works carried out by Interviewee E, *Architect*, all involve BCAR, therefore it came as some surprise that it was possible to carry out works in the above scenarios where the Statutory Compliance requirements could be circumvented.

All interviewees feel that the BR’s themselves are adequate but the system of BRC was non-existent and therefore inadequate. *Interviewee B, Engineer*, felt that some Regulations, such as Part L – Conservation of Fuel and Energy, change so much that it is quite impossible to keep abreast of such changes unless you were working within its remit on a day to day basis.

The author holds that these dwelling types then come under the remit of the pre-BCAR system of self-certification and Opinions on Compliance, which has proven to be not fit for purpose, therefore the current operative state of BRC in respect of these dwelling types is not fit for purpose.

**Question 6**

The system of Building Regulation Control that is standard practice in the United Kingdom and Northern Ireland requires inspection and sign-off at all key stages of all building projects by Local Authority Inspectors.

90.3% of survey respondents feel that the Republic of Ireland would benefit from a similar inspection system.

What do you feel are the barriers to such a system being implemented?
Interviewee A (Surveyor)

I would feel that a serious lack of knowledge and quality of employee at a local authority level would be one such barrier. I feel that the pay-scale at local authority level would be at a scale that their employees couldn’t possibly command in a similar role in the private sector. Generally I have found dealing with LA’s to be quite a disjointed process and therefore if you were requiring them to sign off on foundations etcetera, you would need to allow a week float time to enable you to schedule them to a certain time on a certain day which could spell disaster for construction programs etc.

Interviewee B (Engineer)

I feel that such a system could be legislated for quite quickly so this at least would not be a barrier. Issues could arise almost immediately with respect to LA’s and their associated unions. There would undoubtedly be a lack of resources with respect to individuals that are adequately trained and therefore competent in Building Regulations. This model, I feel, would only work if there was a partnership type approach rather than an adversarial approach.

It is also important to note that the theoretical models in respect of interstitial condensation and sound transference are complex and expensive to arrange. There would have to be a standardisation in approach to design in relationship to these details as soon as possible.

I would also note that I feel we are currently one year into the so called next ‘boom’. Therefore, should a system like this be introduced, it would need to be as soon as possible. Building booms are cyclical and as such any new regulatory structure would need to be in place for the upside rather than the downside of any period of booming construction if we are to prevent the re-occurrence of the mistakes of the past.

Interviewee C (Engineer):

I would feel that there are unions and other vested interests that do not want such a system implemented. There was a situation in 2015 that culminated in Minister Alan Kelly bowing to the vested interests of those interested in building so called self-build houses. Suddenly these individuals could opt-out of the Statutory Certification that is required under BCAR. These individuals were able to successfully lobby the minister to remove the requirement for such certification for the simple reason that they felt the cost associ-
ated was too high. I think that the fact that this has happened previously does not bode well for attempting to commence with another regulatory structure.

I would also worry that a system similar to that in the UK and NI could possibly suffer from an initial period of over-regulation that could cripple the industry until such time as the workings and the intricacies of the system were worked through.

**Interviewee D (Architect):**

Local Authorities would have a serious problem in up-skilling staff to the required level of expertise. It is common knowledge that they are currently under-staffed and under-resourced.

Great care would have to be given to the timing of required inspections as delays occurred at this juncture would have severe cost implications to the project budget as the works proceed.

However, it is important to note that there is currently a working model in Northern Ireland which could be used as an example should such a system be considered.

I also feel that BCAR is currently causing an issue in so far as there is a constant requirement for agrément certificates as BCAR impacts on the selection of materials and systems. We are forced to pass over the use of highly talented artisan tradesmen as their products do not have the requisite CE marking. This is notwithstanding the fact that their product can generally be vastly superior in many ways. We often have to move from local tradesmen that supply jobs in the locality to larger firms with turnover that deems it adequate to engage with and secure CE compliance.

**Interviewee E (Architect):**

Obvious barriers are the lack of suitably qualified staff and the general lack of resources required to implement such a system. I feel that the LA’s are just able to keep up with BCAR in its current form insofar as all drawings, specifications and certification are merely logged on the BCMS software. The personnel that would be required to implement such a system would require mass hiring. All current employees would also have to upskill to the required level of knowledge with all aspects of the Building Regulations.
**Interviewee F (Surveyor):**

Firstly, I agree that the ROI would benefit from the implementation of a similar inspection system.

Any other systems of manufacture have processes in place that deal with quality control on an ongoing basis.

I would see the general lack of want to take any responsibility in an industry where the path of least resistance is travelled more often than not to be the main barrier. The Local Authorities will struggle with resources and general upskilling of their employees. However, it must be noted with respect to Priory Hall that the remedial works and re-housing of those affected far outweighed any associated cost of Local Authority Building Control. Therefore it stands to reason that it would be far more cost effective to prevent the issues arising in the first place by implementing a system of Building Regulation Control.

I feel that this is a shared responsibility and therefore this issue is multi-faceted. The GC is ultimately responsible though all parties across the DT are obligated to ensure that all works are compliant. The LA should provide 3rd party certification with details and sign off at certain stages of the project. This serves to raise the standard of the GC. Ultimately the Client gets what they are paying for, a better built home.

**Discussion**

All interview respondents are of the opinion that the LA’s would have an issue with respect to upskilling of their current Building Control staff and resourcing of the extra staff required. The author opines that such a system would be self-financing but accedes that this is an area that requires further research.

The point that Interviewee F, (Surveyor), raised with respect to Priory Hall and its ultimate associated costs is quite salient. The author agrees with the opinion that it would be far more cost effective to prevent these issues from occurring.

The second point as made by Interviewee D, (Architect), is that of the minimum CE requirements of BCAR in respect of materials and its ultimate knock-on effect on artisan tradesmen and local communities. Earlier in this document, P21, Geoff Wilkinson (2013) stated that the Approved Inspectors in the UK and NI are permitted to allow for
the fact that ‘the building regulations have been cast in a functional form rather than being prescriptive. In plain English this means that there are many different ways that you can show compliance, not just by following the Approved Documents’.

The author holds that if a similar system were to be introduce in the ROI it should contain the same provision that would allow industry professionals, such as Interviewee D, to apply the regulations as they see fit once they can ultimately show compliance.

**Question 7**

The Statutory Certification that is required under BCAR can be circumvented in respect of the following dwellings:

- Domestic extensions that are less than 40m2 in size
- New single dwellings
- Domestic extensions greater than or equal to 40m2

The above dwellings revert to the pre BCAR system of self-certification where an Opinion of Compliance with BR’s is expected to be produced which relies on the GC’s level of knowledge.

68.8% of survey respondents feel that the level of knowledge of BR’s among GC’s is neither consistent nor competent while 87.5% feel that there is either and over-reliance on historical work practices or a specific requirement for constant direction to ensure complete compliance.

What is your opinion on these findings?

**Interviewee A (Surveyor):**

I would feel that a GC shouldn’t have to be competent with BR’s. He should be able to follow a clear set of drawings that are drafted in line with the BR’s. A GC therefore shouldn’t be responsible for ensuring compliance with BR’s. If the construction drawings are drafted to the required level there should be no question regarding compliance.

If the builder constructs to correct drawings, an issue should not arise where the contractor must be responsible for building regulations. As a contractor’s QS I would feel that the contractors I work with may not be competent with regard to BR’s but they are competent in how they follow drawings.
Interviewee B (Engineer):

I would be in total agreement with the findings. The system of self-certification and Opinions on Compliance did not work and as such was replaced with BCAR in 2014. As such it is not clear how it is expected to work in terms of the dwellings listed above. There is no supervision by professional or requirement thereof under this system. It is basically a system of certification that focuses on the contractors level of knowledge as it is not possible to draw/write a full specification of BR’s on a 2d drawing. After all they are called Building Regulations, not Architectural Regulations or Engineering Regulations. It is the contractor’s responsibility to construct what is on the drawings and specifications in line with current building regulations.

I have heard on countless occasions from GC’s that they have ‘built this way for years’. This is not acceptable. You cannot rely on ‘passed down’ knowledge. I feel that there should be a standard level of knowledge required in order to trade as a GC with a further requirement for ongoing CPD in order to continue trading. Courses should be certified and examined to allow a minimal level of qualification to be attained.

I can be brought in front of my own professional body, declared unfit to practice if deemed necessary. What is ironic is, if this were to occur, there is absolutely nothing to stop me commencing trading as a GC the very next morning. GC’s should be registered and licensed so that there can be a penalty should they default on works or complete shoddy works. Currently they can close one company and trade under another immediately. This is a situation that should never have been allowed to develop.

I also feel that there should be a latent defects insurance scheme introduced that all builder/clients pay into so that individual clients that find themselves in situations that they did not cause have some recourse.

Interviewee C (Engineer):

My experience would dictate that I agree completely with the findings as related to GC’s. I have seen contractors that use certain materials, such as roof membranes etc., from project to project simply because they used it on a previous project, notwithstanding the fact that the application might be different. As such there seems to be a lack of knowledge or understanding regarding the products.
Another issue that I have come across is that I have recently seen the emergence of project management companies tendering for and winning work in the domestic construction scene. This results in companies winning tenders where the principal of that company has little or no experience in construction. This is wholly unsatisfactory.

**Interviewee D (Architect):**

The lifespan of a building project teaches the Architect about the competence of any given GC. Therefore future selection processes should involve the knowledge gained with regard to each GC’s competency. I would suggest that the GC’s I work with do have the required level of knowledge; however the complexity of any given project should inherently choose the requisite GC’s shortlisted for the tender process.

It is important to note that projects as a rule are organic with each member of the DT bringing their specialist advice to the table. This should culminate in each element of the works being completed to the required standard.

CIRI should also be enforced as a matter of urgency which would also go some way, albeit over time, to ensuring that the level of knowledge that GC’s have is increased over time.

**Interviewee E (Architect):**

Those figures are extremely worrying.

As our focus is on healthcare projects that follow BCAR, I find that our contractors are generally excellent to deal with when it comes to their roles and responsibilities under BCAR.

With respect to the dwellings noted in the question there should be a requirement for GC’s to engage in constant CPD which would serve to ensure that they keep up with current regulations.

It does fall to the Architect to ensure that their GC’s works are compliant in terms of BR’s. It is important then to create preferred tenderer lists that pair Contractors with works packages that they are experienced in.
Interviewee F (Surveyor):

The results are worrying and raise a multitude of issues. The Architect’s Opinion on Compliance states that if the project was built in line with the drawings and specification and to current BR’s then it is compliant. Therefore, in essence, this opinion could be sent out at tender stage or at any other stage of the project. No checks and balances are in place even though the requirement is on the GC to construct in accordance with the BR’s. Notwithstanding the fact that the perceived level of knowledge required is not there. If the survey respondents do not feel that the GC’s level of experience is not competent then this coupled with the fact that projects are not inspected is extremely worrying indeed.

It seems that the only system that will work is one of independent 3rd party certification that will ultimately serve to upskill the overall knowledge of the GC.

Discussion

The survey respondents and interviewees' opinion’s on GC’s and their actual competence with regard to the BR’s is not one that manifested overnight. All state that they would be satisfied if the GC’s knowledge was greater, as indeed it should be.

However, pre-BCAR for all dwellings and post-BCAR for dwellings that do not come under its remit or where it has been opted out of, all the end user could rely on was the aforementioned Opinion on Compliance. It is widely known and reported on that they are not worth the paper that they are written on as they deal with the ideal state with regard to non-inspected properties, All professionals were aware of the shortcomings of this system that now must be viewed in respect of the following survey findings;

‘68.8% of survey respondents feel that the level of knowledge of Building Regulations among General Contractors is neither consistent nor competent while 87.5% feel that there is either and over-reliance on historical work practices or a specific requirement for constant direction to ensure complete compliance’

It is apparent that whilst the industry feels that GC’s knowledge with respect to BR’s is less than desirable each professional representative body was satisfied to produce a compliance certificate that in essence absolved their own members of responsibility whilst transferring that responsibility to the GC. The same GC whose knowledge they felt was less than competent.
This is a damning indictment of the industry as a whole as it shines a light into quality control policies that are protectionist in nature rather than safeguarding the rights of the client and ultimate and subsequent end-users.

**Interviewee F, (Surveyor),** statement on the usefulness of the Opinion on Compliance strikes at the heart of what is wrong with this system. In practice such an Opinion is not issued until the end of a project, however his point is correct and it could indeed be sent out at any stage of the project. Such a system cannot benefit the end user; it merely exists to absorb all participants of all responsibility.

The author holds that GC’s should be responsible for their works and should indeed have to engage with ongoing CPD to ensure that their knowledge is complete with regard to the BR’s. However, their work should also be policed and 3rd party independent certification that inspects 100% of projects at the most important stages as is carried out throughout the UK and NI should be introduced as a matter of urgency.

**Question 8**

75% of respondents to the survey questionnaire state that the Local Authority is best placed to ensure that there is total compliance in respect of Building Regulation Control. 9.4% stated that they believed the Architect was best placed to ensure total compliance whilst 15.6% thought that the responsibility lay with the Building Contractor.

What is your opinion and can outline your reasons for it?

**Interviewee A (Surveyor):**

I believe that the individual responsible for the design and sign off should also be responsible for BR compliance. The designer has been trained to a much higher level than any building contractor, and as such it is my view that the architect is technically trained to deal with that exact situation and the onus should reside with them. I believe that responsibility should never lie with the building contractor.

**Interviewee B (Engineer):**

I feel that whilst the LA should police the system in 100% of cases it is important to note that the responsibility for BRC lies with all parties. You cannot divulge the Contractor, Engineer or Architect of responsibility. As noted earlier, I feel that all contractors should have latent defects insurance and there absolutely must be a consequence to
actions that lie in direct contravention to the project brief and ultimately the requirements of the end user.

**Interviewee C (Engineer):**

I don’t feel that you can look to one person or entity and expect them to ensure complete compliance with Building Regulations. As such I feel that all stakeholders should come together in a collaborative fashion that creates a system of combined and shared knowledge. Partnership is key to the success of such a system.

I have no issue with the LA assuming the role of the ultimate supervisor but I feel that the end goal of such a regulatory structure should be one of ensuring that the end product is constructed satisfactorily and not one of attempting to apportion any blame on any single entity.

**Interviewee D (Architect):**

The GC must be responsible for compliance with the BR’s however supervision is extremely important and this should be completed by the LA.

It is also extremely important that general competency with regard to new systems of work and updated BR’s is addressed on an ongoing basis by requiring constant CPD to be completed by the same said GC.

**Interviewee E (Architect):**

Whilst I feel that the main responsibility for compliance lies with the GC it is important to note that the issue is multi-faceted and that general responsibility for compliance should be shared throughout all members of the DT. The system that is in place in NI does require the LA to sign off on all drawings ensuring that they are compliant with BR’s. This is a 3rd layer of quality control that, if introduced, would be beneficial to everyone.

**Interviewee F (Surveyor):**

I feel that this is a shared responsibility and therefore this issue is multi-faceted. The GC is ultimately responsible though all parties across the DT are obligated to ensure that all works are compliant. The LA should provide 3rd party certification with details and sign off at certain stages of the project. This serves to raise the standard of the GC. Ultimately the Client gets what they are paying for, a better built home.
**Discussion**

The author holds that the responsibility for compliance with BR’s should always lie with the GC, after all he has been contracted to carry out works and therefore they should be completed to a required standard.

However the responsibility for ensuring compliance is multi-faceted. All members of the design team have a responsibility to ensure that what they design is compliant.

It is interesting to note that most interviewees’ feel that the LA should police the system in 100% of cases. All agree that it should be run like the UK and NI where the relevant LA’s do not accept responsibility for any GC. Therefore the system is a series of checks, balances and quality control that ensures that the end user receives a product that is fit for purpose.
Chapter 5 – Conclusion and Recommendations

Conclusion

The stated aims of this dissertation document were as follows:

- to prove that the system of BRC in respect of dwellings where BCAR does not apply or can be opted out of is not fit for purpose
- to ascertain if there is a requirement throughout the ROI for the introduction of a top-down LA lead approach to BRC similar to that currently utilised throughout the UK and NI.

BCAR was introduced in response to several high profile fiascos such as Priory Hall and Longboat Quay which highlighted major issues with BRC throughout the ROI.

Research conducted throughout this document showed that 75% of survey respondents acknowledge that it is not in the best interests of the general public that the Statutory Certification that is required by the Building Control (Amendment) Regulations, (BCAR), does not apply to “Extensions under 40m2” and can be opted out of for “Self Builds” or “Extensions equal to or greater than 40m2.

These dwellings revert to the pre-BCAR system of self-certification and Opinions on Compliance that was deemed so unfit for purpose as to be replaced by BCAR in 2014.

Furthermore, when asked if they felt that the current system of BRC in respect of these dwellings was fit for purpose, 84.4% stated that it was not.

This was further reinforced in the interview stage where one interviewee stated that in 20 years of professional practice he had seen LA Building Control ‘no more than half a dozen times’.

Both the survey respondents and interviewees’ were chosen as the author felt that the individuals and firms are those that would have been required to produce opinions on compliance pre-BCAR and as such still have to in the case of dwellings where BCAR does not apply or has been opted out. Therefore the author holds that they are an indicative sample that are, therefore, a true representation of widely held industry opinion.
As such the author feels that this dissertation document has found that it is an industry-wide opinion that the current system of BRC in relation to dwellings where BCAR does not apply or can be opted out of is not fit for purpose.

This dissertation document also sought to ascertain if there is a requirement throughout the ROI for the introduction of a top-down LA lead approach to BRC similar to that currently utilised throughout the UK and NI.

Former RIAI president, Eoin O’Cofaigh (2014), stated that ‘building control authorities must have real involvement, with adequate resources and powers to oversee and enforce an effective system of inspection of design and construction. In addition to enforcement, they should be enabled to promote better building practices through systems of feedback, notifications and education’.

Among others, survey respondents were asked if they felt that the system of BRC throughout the UK and NI that requires inspection and sign-off at all key stages of all building projects by Local Authority Inspectors would provide greater protection for the general public and ensure full compliance with Building Regulations. 93.8% answered in the affirmative.

Furthermore 90.3% stated that they thought that the ROI would benefit from a similar inspection system.

The literature review and subsequent synopsis cast a light on the major differences that exist with regard to BRC between both jurisdictions.

The ROI is content to make it the sole responsibility of the BO to appoint a suitably competent AC and GC regardless of his/her experience of the building industry or lack thereof.

The ROI has also seen fit to allow a series of building types, namely extensions and single dwellings to either be exempt from or opt out of the Statutory Requirements under BCAR and therefore to revert to the pre-BCAR system of self-certification.

This was a system of BRC that was deemed so poor as to be replaced. Inspection rates are set at 12-15%.
Post BCAR inspection rates do not seem to be much better with focus being placed on GC’s that are deemed most at risk. The more that an ‘at risk’ GC is inspected the greater the chance that others, equally as non-compliant, are not.

An evaluation of the non-compliant issues post BCAR has shown that there are issues with every facet of the TGD’s.

As such the author feels that this dissertation document has found that not only is it an industry-wide opinion that there is a requirement throughout the ROI for the introduction of a top-down LA lead approach to BRC similar to that currently utilised throughout the UK and NI but that it has also been proven by simply comparing and contrasting the systems of BRC throughout both jurisdictions.

**Recommendations**

- The exemption and opt-out clauses as allowable under BCAR (2015) should be removed with immediate effect
- BO’s and their associated DT’s should be required to obtain Building Regulation Permission for their prospective projects prior to commencement on site
- 3rd party certification that deals with standard, staged inspections by LA Inspectors or AI must be introduced
- Pre-qualification for employment as a LA Inspector or AI should be limited to knowledge of BR’s as opposed to a specific sector or university qualification
- DT’s must be allowed to prove compliance with BR’s in cases of non-standard designs
- LA’s or AI’s should not be required to bear responsibility for any GC
- Membership of CIRI needs to be made mandatory for any individual or firm wishing to act as a GC with immediate effect
Opportunities for Further Research

The following is a list of further research opportunities that would enable the research as undertaken throughout this dissertation document to be carried forward and expanded upon:

- Summary of the costs involved in implementing a top-down LA lead system of Building Control. Is it self-financing? There is a working model in the UK and NI that can be used for reference purposes.
- What level of up-skilling is required at LA level? Is there an optimum level of staff currently employed in Building Control, Fire Safety and Disability Access Certificate roles that could be transferred to the new BRC department?
- How could a successful system of LA Approved Inspectors be implemented? Are existing AC’s prepared to prove their competency by way of the knowledge based matrix as that currently in use throughout the UK and NI?
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