Comhairle Contae Fhine Gall

Fingal County Council



IBCI Conference 2023

Building Control Officer Perspective

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Fingal County Council





Built Environment Inspectorate – who we are and what we do



- Building Control
- Taking in Charge
- Unfinished Housing Developments
- Dangerous structures
- Construction Products Regulations
- Energy Efficiency Regulations

Staff

- 1 SE Engineer
- 3 BC Engineers
- 1 Contract Engineer
- 4 BC Inspectors
- 1 Technician
- 1 Graduate Engineer

Building Control



Health, safety and welfare of people in and around buildings.



If everything was designed and built to the correct standards, there would be no need for Building Control

Building Control Officer Perspective - FCC



- History
- Workload Desktop and site
- Opt Outs
- Part C Site preparation and resistance to moisture
- Part L Conservation of fuel and energy
- Part B Fire Safety
- The Future

Building Control History



- 1666 Great Fire of London Building Inspector
- 1981 Stardust Fire
- 1987 Raglan House
- 2011 Priory Hall
- 2017 Grenfell



Fingal Building Control Authority



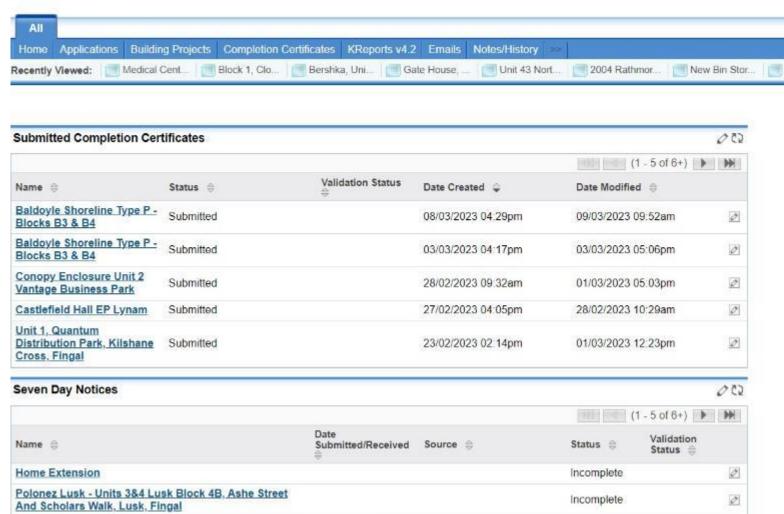
Building Control Workload

- Desktop/Office based work
- 2. Site Work

Fingal Building Control Authority







08/03/2023

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Desktop Compliance

- Design Certifier (DC)
- Assigned Certifier (AC)



Builder

BCAR = Professionals + Builders

CN and CCC Compliance Documentation
The BC Regs state that the CN/CCC shall be
accompanied by such plans, calculations,
specifications and particulars as are necessary to
show compliance with the B Regs



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Site work:

- Inspections 429
 buildings of 2469 in 2022
- Re-inspections
- Meeting with AC and Builder



Fingal Building Control Authority



Building Control Site Issues

- Opt-outs (only 40 new dwellings in 2022)
- Non-compliance with Part C
- Non-compliance with Part L
- Part B Volume 2 Dwelling Houses

Opt Out Commencement Notice



What?

Declaration of Intention to Opt Out of Statutory
 Certification NOT BUILDING REGS

When?

 In the case of a new single dwelling, on a single unit development, or an extension with floor area greater than 40 square meters.

Howmany?

 Nationally approximately 12½k single dwelling Full CNs and 4k single dwelling Opt Outs

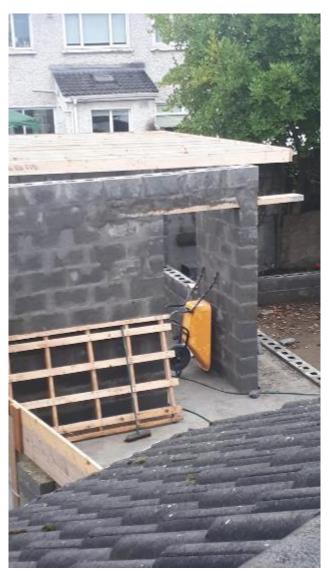
Why are Opt Outs gaining popularity?

Opt outs

FCC had 40 new single dwellings in 2022 and 20%

were inspected = 8 buildings.





Opt Out - what can we do?



Desktop/Office based

- Request at CN such plans, calculations, specifications and particulars as are necessary to show compliance with the B Regs – At least the design will comply!
- Design Drawings showing compliance with the B Regs A to M
- Part L design to demonstrate compliance
- Fire strategy showing compliance with part B.

Site Inspection

- Impression that Opt Out means no requirement for compliance – re-educate on site.
- Inspections of Opt Out single dwellings bang for our buck?
- BIG ISSUE No CCC to encourage compliance
- Enforcement through notices and court.

Building Regs





Building Regulations

- Second Schedule Part A to M
 - Part A Structure
 - Part B Fire Safety
 - Part C Site preparation and resistar
 - 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 quards
 - Part L Conservation of fuel and energy
 - Part M Access and Use.

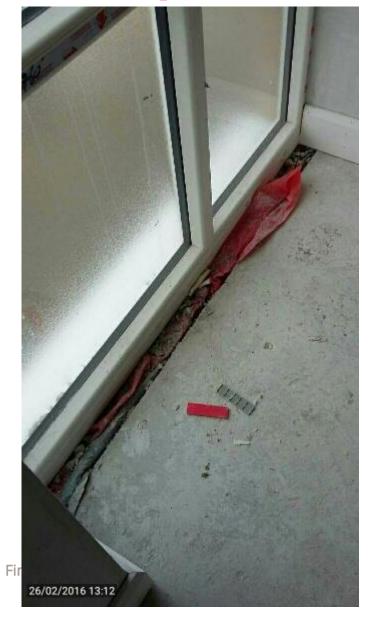


Part C - Site Preparation, dangerous substances and resistance to moisture



- C1 Preparation of site: The ground to be covered by a building shall be reasonably free from vegetable matter.
- C2 Subsoil drainage: Subsoil drainage shall be provided if necessary so as
 to prevent the passage of ground moisture to the interior of the building or
 damage to the fabric of the building.
 - C3 Dangerous substances: Reasonable precautions shall be taken to avoid danger to health and safety caused by substances (including contaminants) found on or in the ground to be covered by a building.
- C4 Resistance to weather and ground moisture: The floors, walls and roof of a building shall be so designed and constructed as to prevent the passage of moisture to the inside of the building or damage to the fabric of the building

Non compliance with Part C





RADON IN IRISH DWELLINGS Non co Tuaisceart Eireann / Belf Northern Ireland ar wall Armagh Newry Damp-proof course lings 1% Fingal County (fingal.ie

Building Reg Part L - CONSERVATION OF FUEL AND ENERGY



L3 New dwellings

- Use of DEAP for MPEPC and MPCPC
- Renewables RER 20%
- Building Fabric
- Thermal Bridge
- Air Permeability
- Heating and cooling systems
- Controls
- User information

Part L on site





Part B Fire Safety - V2 2017

- TGD B Vol2 Section B6 to B10
- B6 Means of Warning & Escape
- B7 Internal Fire Spread (Linings)
- B8 Internal Fire Spread (Structure)
- B9 External Fire Spread
- B10 Access and Facilities for the Fire Service

В

Fire Safety

Dwelling Houses

Volume 2

Building Regulations 2017

Technical Guidance Document





Part B - Fire Safety

- Prevent conflagration 3 reasons
 - Defective Design, Defective Const.,
 Poor Maintenance



- Passive Fire Protection
 - Compartments, protected shafts, cavity barrier, fire doors, fire stopping

- Active Fire Protection
 - FDAS, Sprinklers, suppression, Emergency lighting



B6 Means of warning and escape in case of fire

New Dwelling type

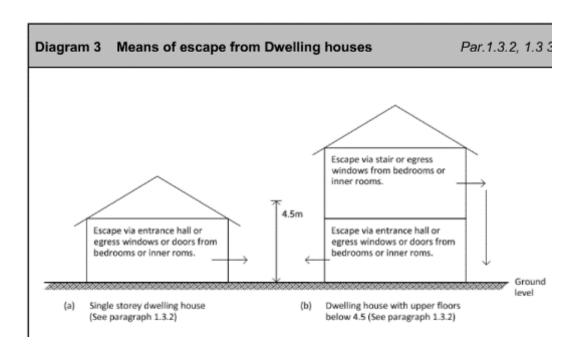
Community Dwelling house – PG1(d) - A Dwelling house with a maximum of 8 bedrooms which may have no more than one storey, the floor level of which is more than 4.5m above ground level occupied as a group home, under the management of a statutory or voluntary organization providing supported living and residential services. NO FSC

Dwelling house category

- No floor more than 4.5m
- One floor above 4.5m
- More than one floor above 4.5m

Open plan arrangement

- Stairway 4.5m from exit
- 3m rule for cooker
- Stairway doesn't discharge to kitchen



B6 Means of warning and escape in case of fire

Fire Detection and Alarm System

Category LD2: Interconnected self-contained mains powered/battery backed Smoke/Heat Alarms (as Grade D above) shall be suitably located in:

(1) all circulation areas that form part of an escape route within the dwelling,

- (2) all high fire risk areas/rooms e.g. kitchen, living rooms, garages, utility rooms and
- (3) all bedrooms.

Grade D – Use of one or more interlinked mains-powered smoke/heat detectors, each with a backup battery (the interlink can be hardwired, or radio-interlinked)

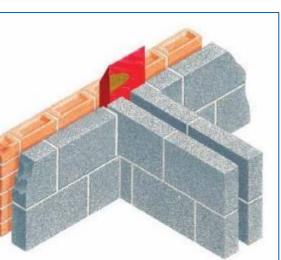
High Fire risk - Risk assessment – attic space? Heat control press? ventilation control press? PV panel equipment?

 IS3218 FDAS refers to BS 5839-6 2019 Fire detection and fire alarm systems for buildings which says that 'In order to maximize the cost-benefit of a fire detection and fire alarm system, it is essential that the system design be appropriate to the fire risk'.

B8 Internal Fire Spread (Structure)

- B8 Structure issues
 - Elements of Structure Floors and walls REI
 - Fire stopping –fire collars etc
 - Cavity barriers





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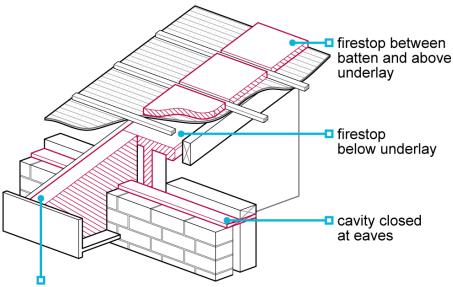
B8 Internal Fire Spread (Structure)

Concealed Spaces (Cavities)

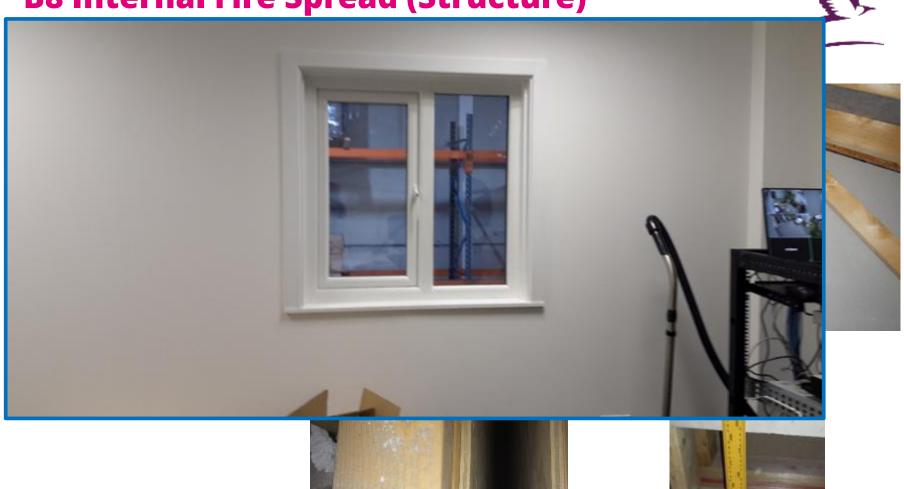
Part B Vol 2 - 3.6.2 Provision of Cavity Barriers Cavity barriers should be provided in accordance with the following:

- (a) At the top of an external cavity wall (masonry or framed construction) including any gable wall.
- (b) Vertically at the junction of separating wall and any such wall with an external cavity wall (Diagram 12).
- (c) Above the enclosures to a protected stairway (see Diagram 11).
- (d) Around all openings (windows, doors, vents, service boxes etc.) in framed construction.





B8 Internal Fire Spread (Structure)



The Future



In situ Concrete Formi (ICF)

- Steel framed
- Modular
- EV charging
- ZEB or Energy plus
- Retrofits & Renewable power

Fingal County Council



Thank You





Professional – Architect, Engineer or Building Surveyor



Building Control Authority



Developer/Builder