

Building Control Compliance Challenges DAC & FSC

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IBCI Conference 2025 – Little Island, Co. Cork

My Work

- BCO inspector Since 2003
- Focus on -
 - Apartment Buildings
 - Schools
 - Nursing Homes
 - Public Assembly
 - Housing Estates

Apartment Defects Scheme Tiers

- **Tier 3** – Serious defects + Changes require new FSC/DAC (~20%)
- **Tier 2** – serious defects + deviations from FSC/DAC (~30%)
- **Tier 1** – ‘common defects’ but inline with FSC/DAC (~40%)



Apartment Defects scheme ~ €2.5 Billion

"Don't need to inspect commercial & apartments as they have professionals involved" - I don't find this to be true

Inspecting apartment buildings vrs single houses

- More complex – more expertise required
 - *Oversight not necessarily (sufficiently) better*
- More things to go wrong
- Greater consequences
- Helps more people /Greater public good

		SEVERITY →		
		1	2	3
LIKELIHOOD ↓	1	LOW - 1 -	LOW - 2 -	MEDIUM - 3 -
	2	LOW - 2 -	MEDIUM - 4 -	HIGH - 6 -
	3	MEDIUM - 3 -	HIGH - 6 -	HIGH - 9 -

"Don't need to inspect commercial & apartments as they have professionals involved" - I don't find this to be true

FSC & DAC Certification System

- FSC - Fire Safety Certificates
- DAC – Disability Access Certificates

Fire or Access - Which is more important?



People falling on slippery floors



People colliding with glazing



Awkward WCs + Layouts

Part B – Life safety (Really important)

Part M – Convenience + Safety

→ But there might never be a fire

→ Defect could cause people problems from day 1

What Happens to FSC/DAC after Granting ?

**Is the system still achieving
what was intend ?**

- **Provisions** - Are they understood ?
- **Changes** — are they put into the design?
- **Conditions** — are they complied with?

Does anyone ever read it again ??

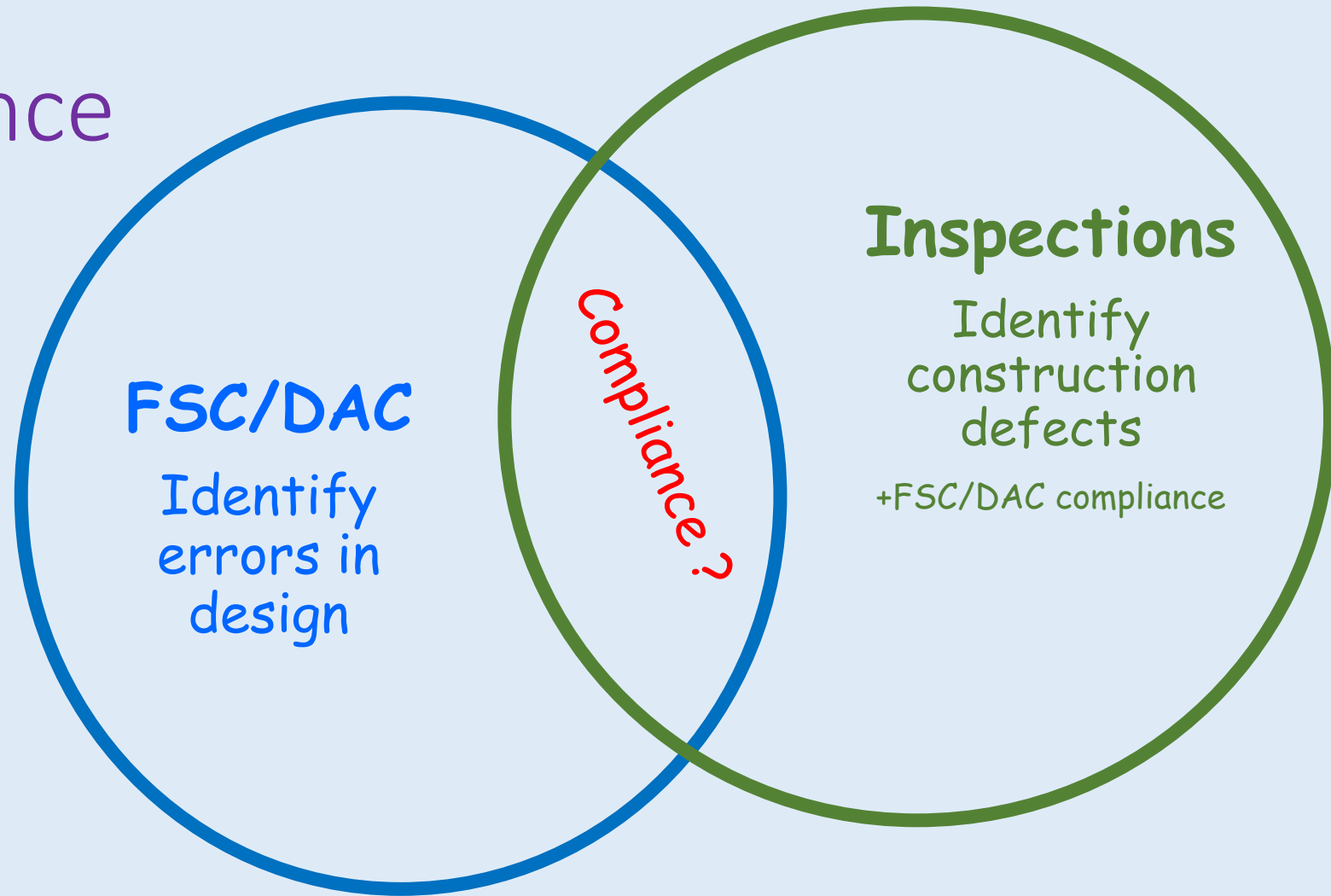


Raiders of The Lost Ark

Achieving Compliance

Compliance depends on
BOTH

Design Checks
+
Site Inspection



Questions - In absence of sufficient BC inspections – have the benefits of FSC/DAC stalled ?

- Are FSC/DAC treated as just a Red Tape exercise rather than a benefit?

Weaknesses in FSC/DAC system.

✗ *Since 1991 - More Building elements not yet designed at FSC/DAC stage*

- *Part B - Ducts, services, controls, types of construction etc.*
- *Part M - Finishes, Colour schemes, entry controls, ironmongery, signs.*

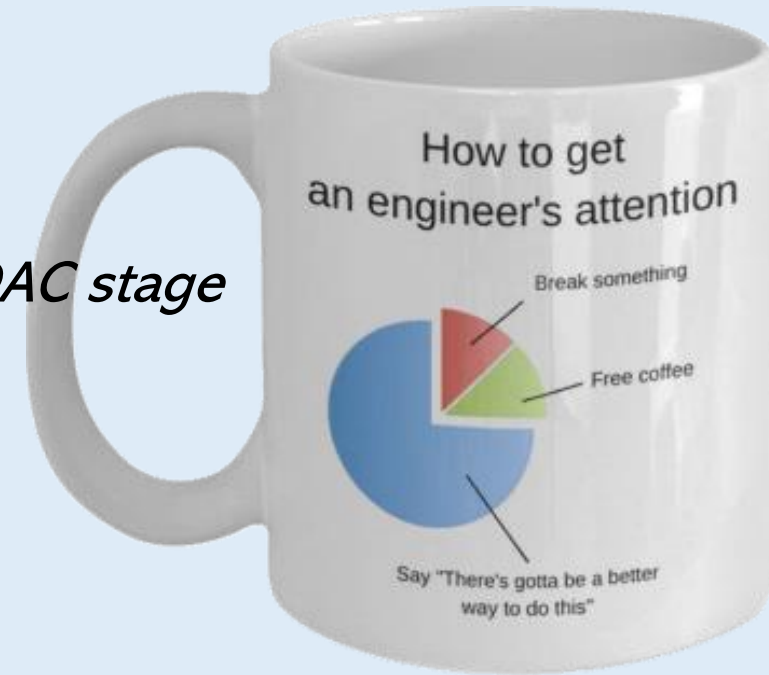
✗ *FSC often treated as just “Red Tape exercise” (Value not seen)*

- *“get me a FSC for that” attitude*
- *Can be disconnect between FSC/DAC consultants & Designer*

✗ *CN stage – Designer doesn’t have to confirm FSC/DAC compliance*

- *CN drawings - often don’t match FSC/DAC*

✗ *CCC stage – No one confirms compliance with FSC/DAC*



Are FSC & DAC being seen as just a Red Tape exercise ?



Dealing With Poor Applications

Pre 2014 - “*stay and play*” attitude to poor applications – *fear they would build without FSC*

Refusal Rates for applications still very low

- FSC = only 1.5% *(97/6,600 of decisions in 2024)*
- DAC = only 1.4% *(61/4,390 of decisions in 2024)*

Has this created expectation you could submit poor applications
and have the LA would fix any problems for you?

Post 2014 - has BCAR’s improved certification & oversight reduce need for ‘*stay & play*’?

Question

Could refusing more of the very poorest applications ‘*encourage*’ better quality

Commencement Stage

Compliance Issues



Design
Certifiers

Common reasons for non-compliance

- 1) ***Design changed after FSC/DAC granted***
 - 2) ***Reverted to pre-FSC/DAC application design***
 - 3) ***Revisions in FSC/DAC overlooked.***
 - 4) ***Conditions forgotten***
 - 5) ***Starting work before DAC***
-
- 6) ***Detail difficult to build / misunderstood***
 - 7) ***Not adequately detailed – items left to builder?***

- *lack of respect for FSC/DAC process*
- *ignored revisions made during application*
- *Eg Fire rating increased or WC layouts handed.*
- *frequently these were the important things!*
- *DAC often requires layout changes (esp. 7DN)*

Revision	Description	date
Rev 6	Issued for construction	13-Apr-21
Rev 5	Amendments post tender design	02-Mar-21
Rev 4	Issued for tender	21-Oct-20
Rev 3	<i>Revisions for FSC</i>	<i>08-Jun-20</i>
Rev 2	Issued for FSC	19-May-20
Rev 1	Issued for Planning	01-Jan-20

Who is at fault for each of the above ??

Designers and FSC/DAC

In granting a FSC & DAC – the Building Control Authority certifies that the design is compliant.

→ It's the best ancillary cert you can get.

- Deviate from the FSC/DAC and you lose this protection.

If Design deviates from FSC/DAC → Who is now responsible / liable for the design ? (Designer/AC?)

If Design not adequately detailed → Builder may make “mistakes”
→ will the A/C refuse to sign CCC

Comfort blanket



- *who is liable for costs arising ?*

- *who is responsible ?*

Example – Not following the FSC / DAC

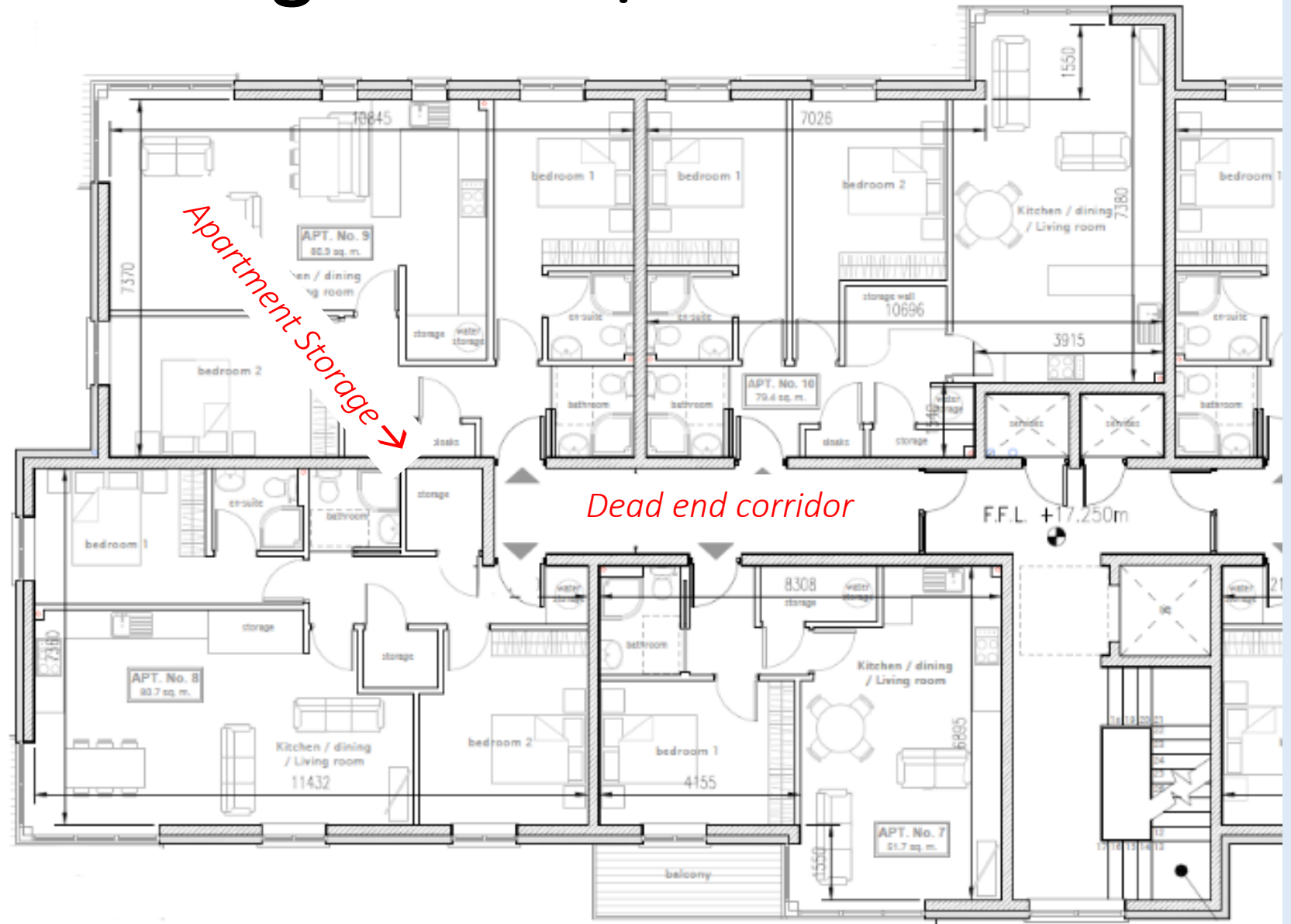
3 storey apartment building

Single stair building with dead end corridor



Original

FSC & DAC submission drawings



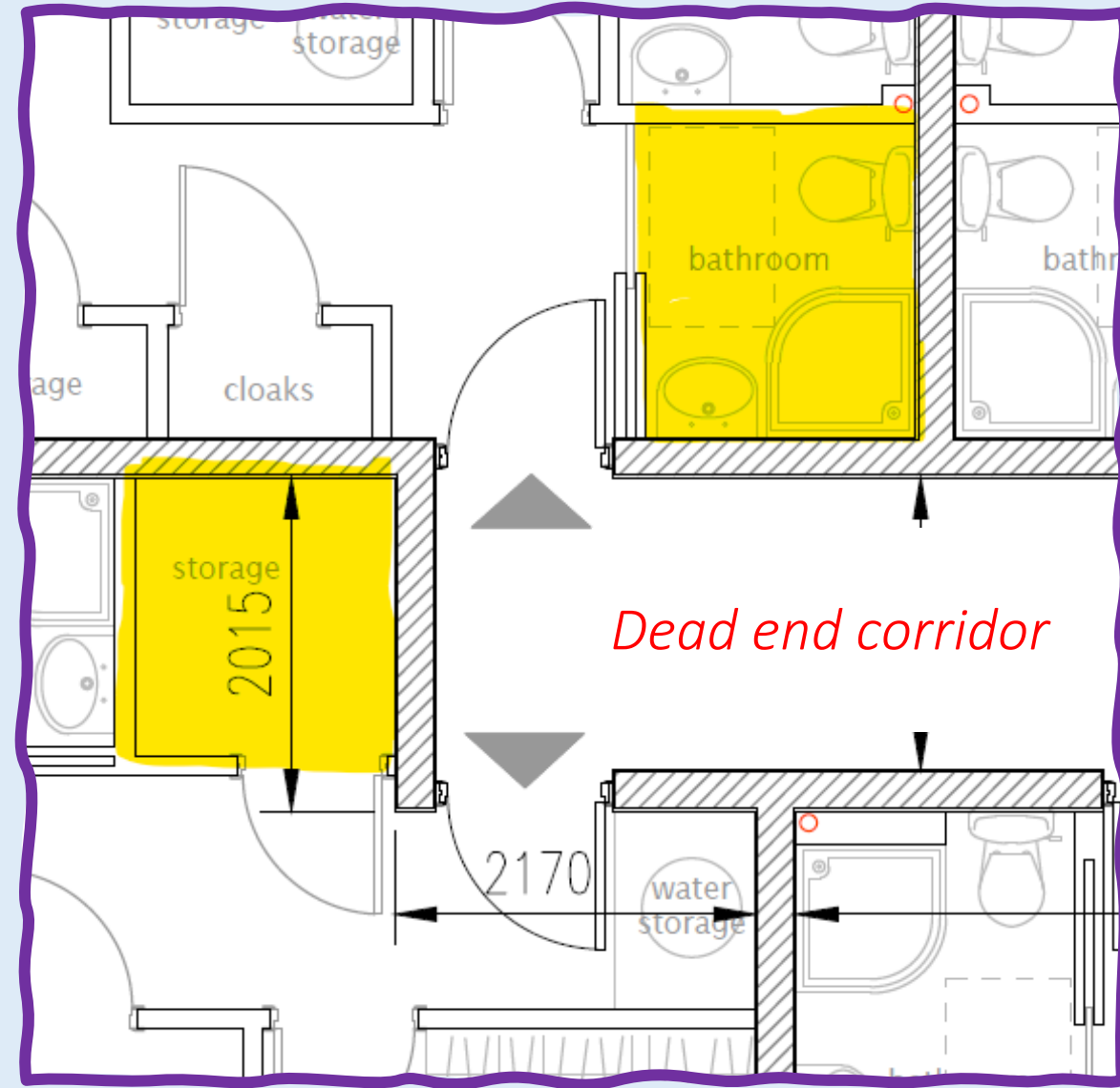
Issues Identified in FSC & DAC

DAC - Layout of WC not accessible

(skyhooks needed to manoeuvre into that 1200x750mm space)

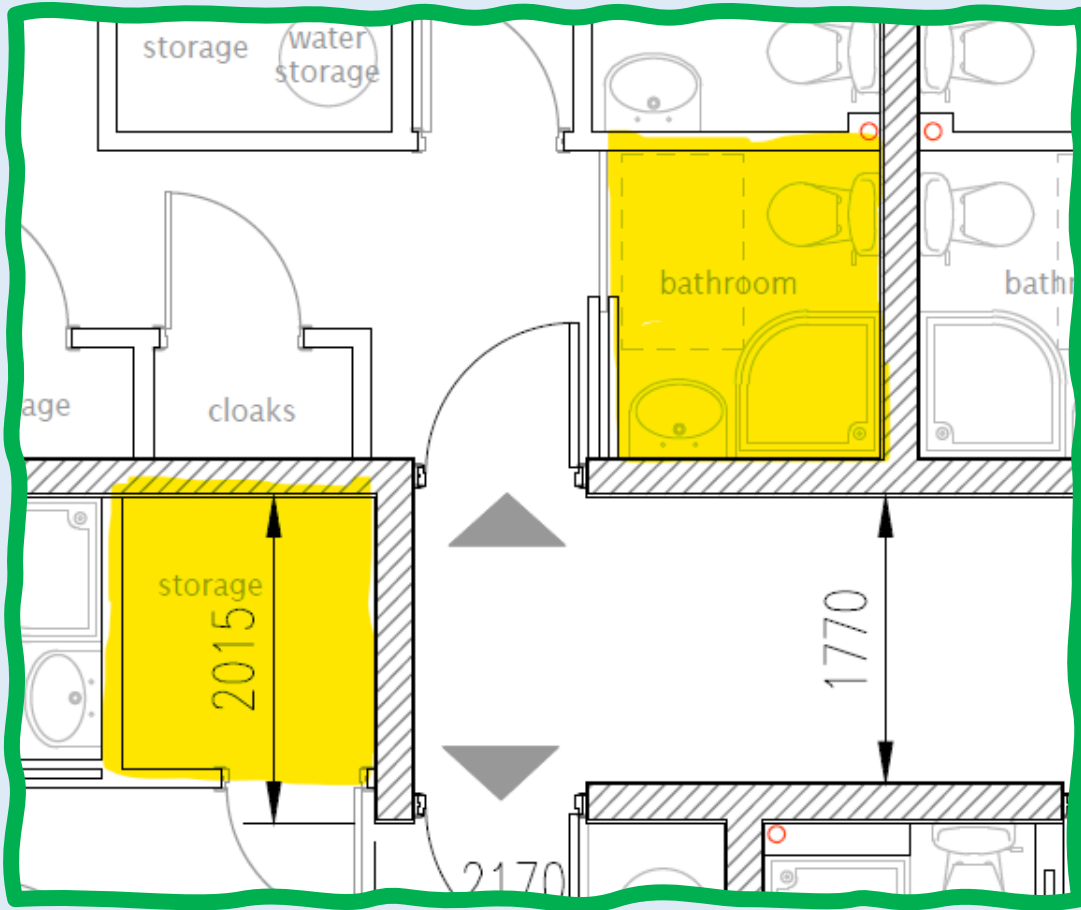
B –Corridor needed smoke control.

- Dead end corridor in a single stair building

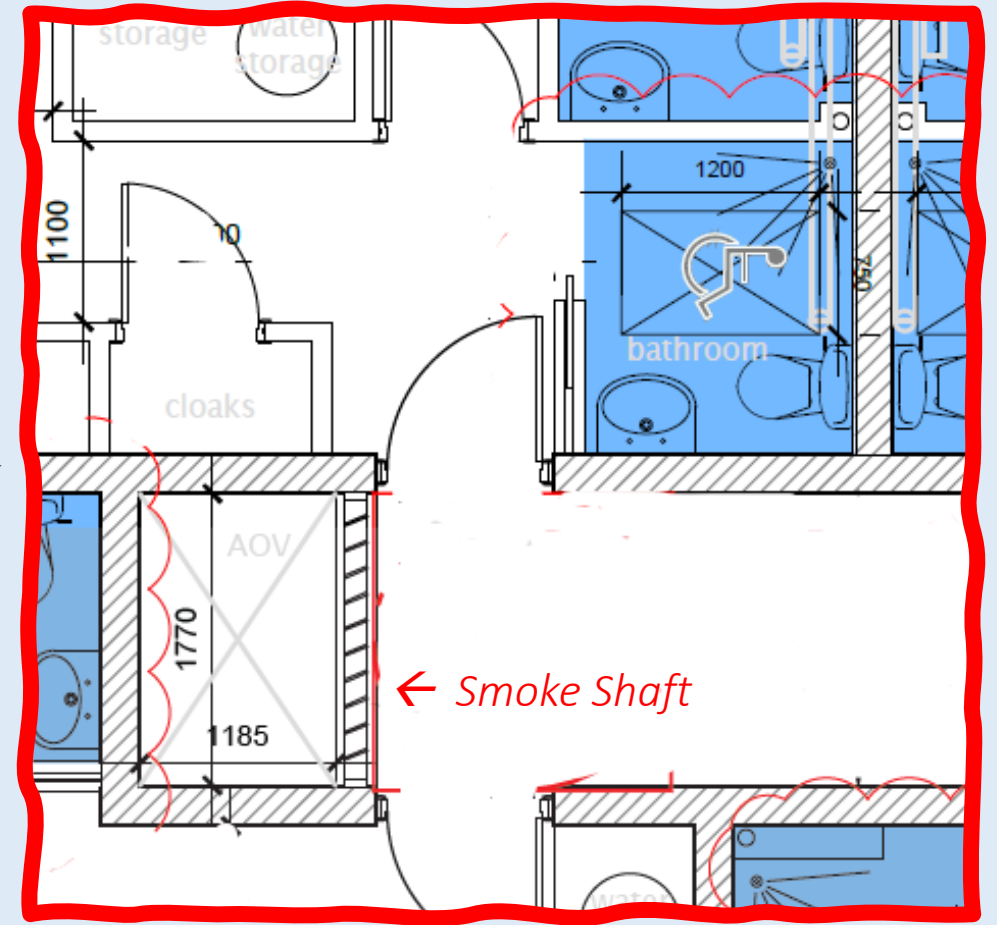


Changes made during Applications

As Submitted



As Granted FSC & DAC

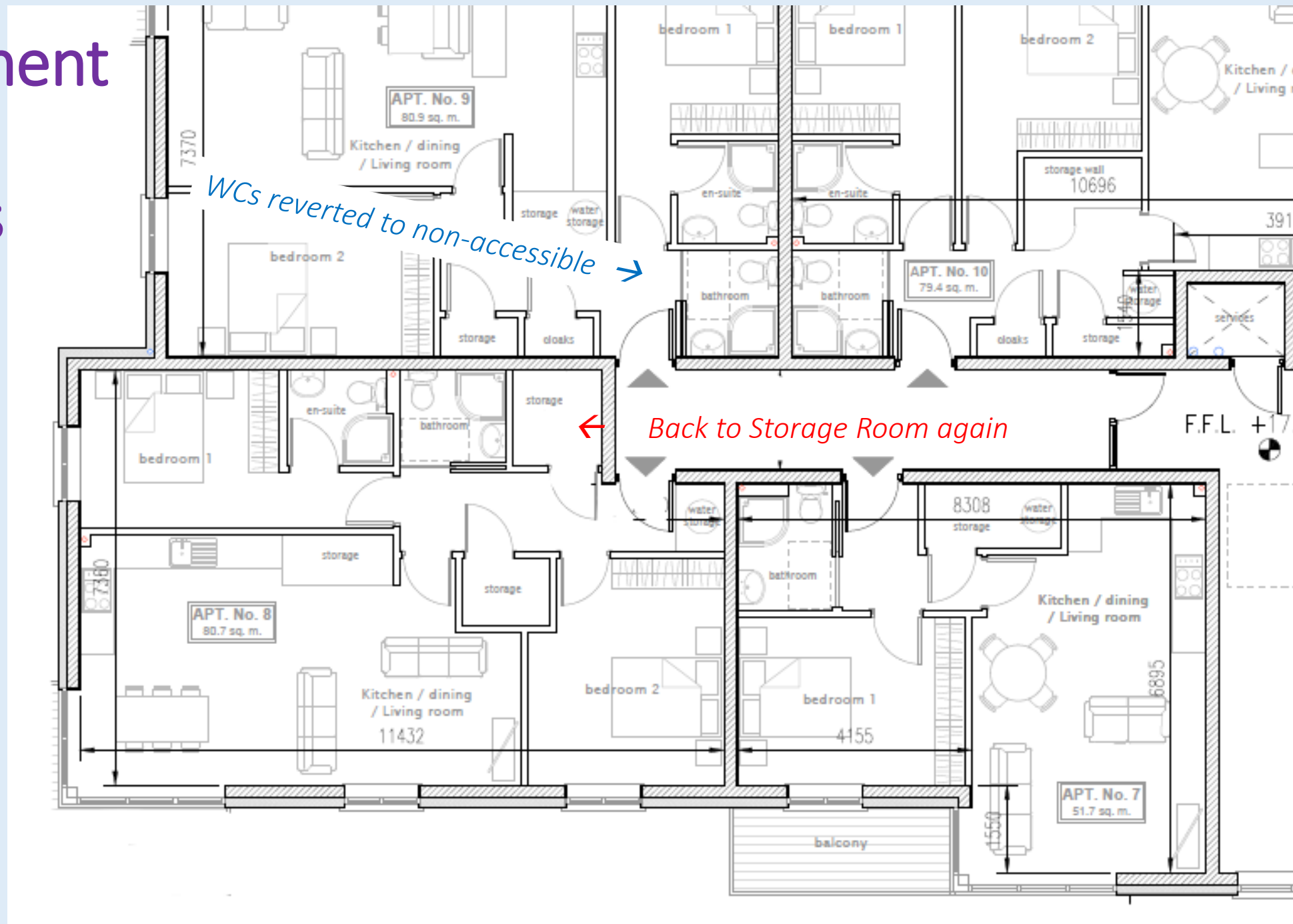


Changes Part M = toilet repositioned + FSC = Store changed to smoke control shaft.

Commencement Notice Drawings

*Reverted back to
pre FSC/DAC
design*

*Ignored many
changes made for
FSC & DAC*



Consequences of not following FSC/DAC

Building Control letter noting issues sent at CN stage.

- Long Delays - *work ceased at floor slab*
- Redesigned to provide 2nd stairway – *storage needed*
- Revised Planning Permission
- Revised Fire Cert
- Toilets misaligned with planned down pipes



Key point - Costs & Delays could have been avoided if issues dealt with during/after the FSC & DAC

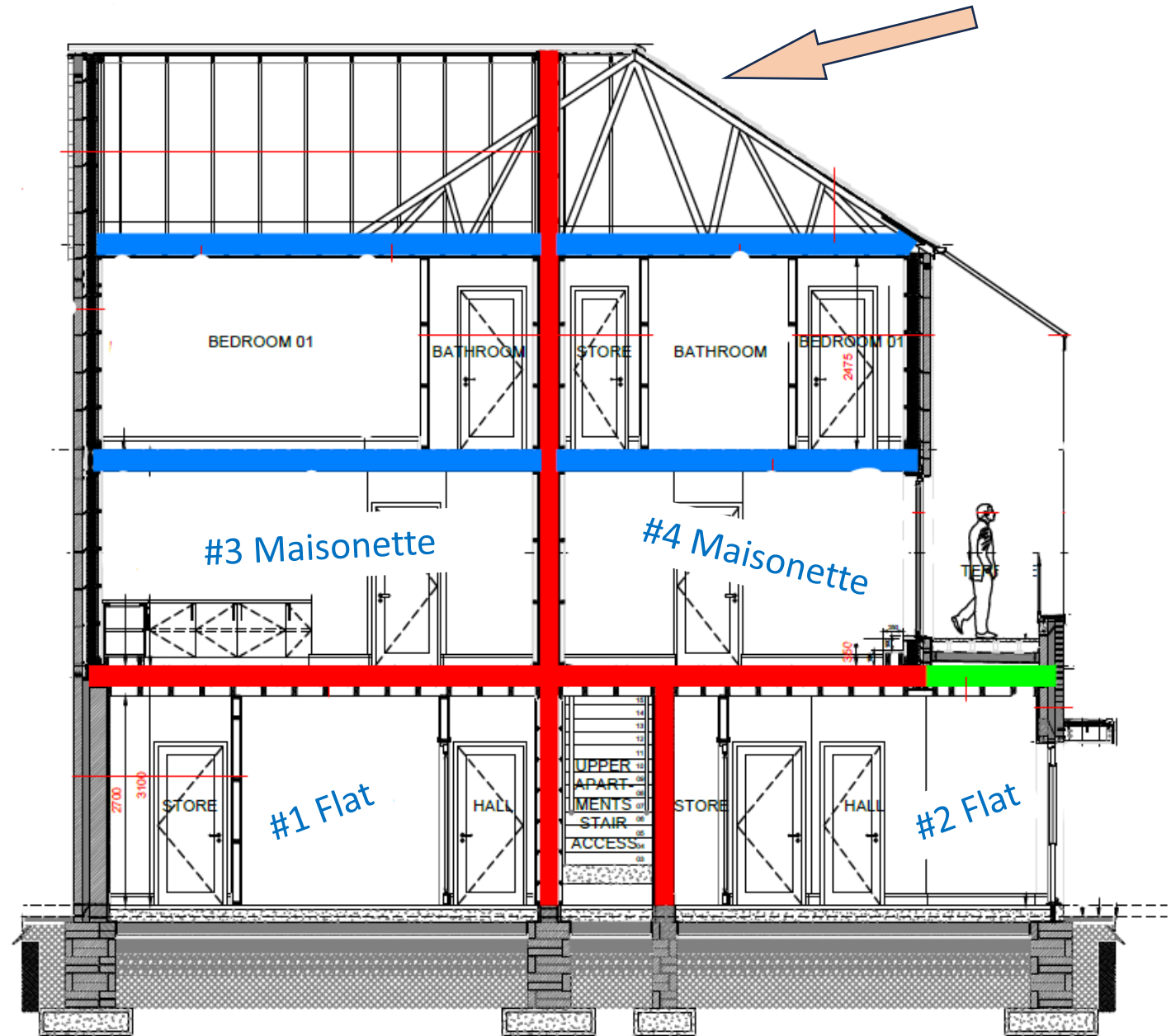
**** Early Building Control intervention Prevented bigger problem. Easier to rectify before construction ****

Difficult to build

60min compartment wall to underside of roof

Note

Roof Trusses cross the 60mins wall



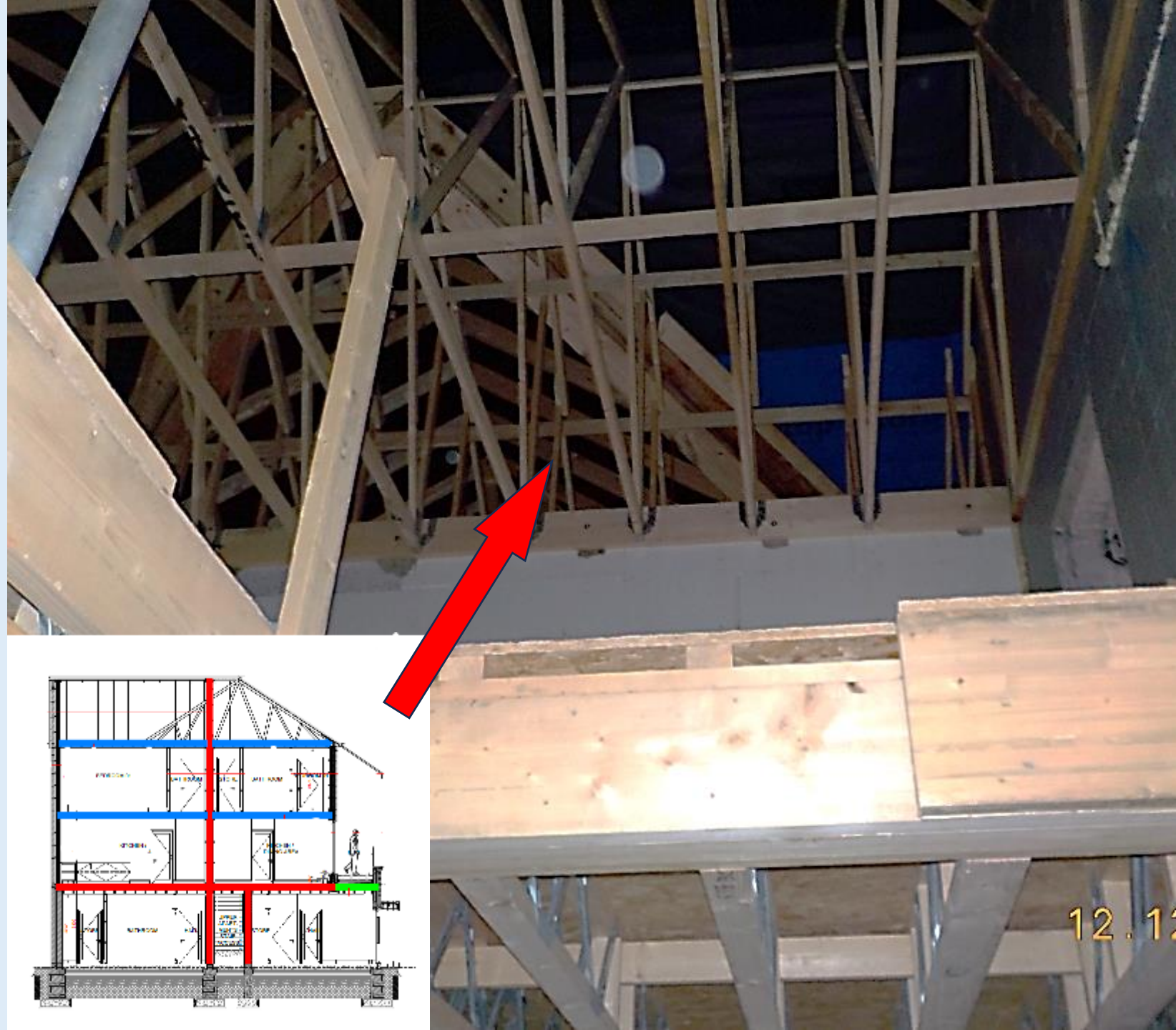
Difficult to build

On Site:

Compartment wall above
ceiling omitted

Major Fire Safety Risk

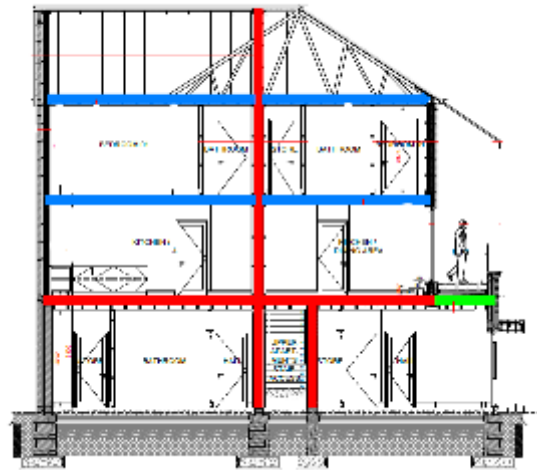
- Trusses supported on & crossed over wall
- Very difficult now to complete compartment wall



Solution Difficult

- Removed Roof
- Drilled into ICF wall for rebar
- Shuttered and poured concrete
- Cut & Rehung Trusses

→ *Probably expensive + Delays*



Ignoring Conditions

Costly Errors can be avoided by reading FSC/DAC

100's of m² of insulation had to be removed & replaced.



Condition No.8

→ *“No combustible materials to be installed in basement carpark.”*

They Installed

→ Combustible insulation. (who specified ? Builder or Designer?)

Key Points – Design Certifiers

To Protect your Indemnity insurance, you should –

- *Review Granted FSC & DAC* *- identify any changes*
- *Read the conditions* *- probably important*
- *Ensure CN stage design complies*

Before making changes -

- *Discuss proposed changes with Fire & Access Consultants*
- *Consider if Revised FSC/DAC needed.*



How do YOU view FSC/DAC ?

Red tape or vital check?



Deviate from FSC / DAC → Lose the protection of having the design certified by Building Control Dept.

During Construction

Compliance Issues



Builders

Builders Certification at Completion

*I certify, the works [have been] constructed in accordance with the plans, [etc].....
certified under the ...Certificate of Compliance (Design)[of] the Commencement Notice
..... Together with any further plans [etc] as have been subsequently issued to me and
certified and submitted to the Building Control Authority [paraphrase]*

- Builder Only certifies works constructed in accordance with the **CERTIFIED** design.

→ **BUT** after the CN the Designer does not have to sign any statutory Certificates of Compliance!

- Design Changes ?
 - Are they certified & “submitted to Building Control”
- Elements not designed at CN stage
 - who designs and certifiers these ?
- Low quality/detail in CN Drawings
 - is designer passing responsibility to Builder ?

..... Who then is LIABLE for any design defects ?

Workmanship Errors

Basic workmanship errors can undo all the good of a FSC/DAC

- BC inspection is critical

Fire

- Poorly fitted fire stopping negates fire resistance of walls & floors

Access

- Locating toilet bowl in wrong place can make WC unusable to wheelchair users



Compartment wall in 4 storey apartment building

Design Changes - Materials

- *Large Nursing home*

FSC - stated "*no timber linings*"

Site - fitted timber linings to ceilings

Result - Linings removed same week.

Unnecessary waste of €€€ could easily have been avoided if they

- read FSC or
- checked with consultant, FPO or BC



Design Changes - Missing a trick

Thinking a design change is okay – but missing a complication from the FSC/DAC

Issue - Large nursing home with nurse's stations within main corridors

FSC – proposed stations as enclosed in 30mins fire resistance.

On site – Design changed to open stations *(operational reasons)*

- *In general Stations don't "have" to be enclosed.*
- *Thought they were okay to change. Didn't consult Fire Officer.*

Problem – FSC stations included combustibile storage (files etc)

- *A fire in nurse's station would blocked the main escape routes.*
- *Would have been a critical fire safety defect.*



Rosepark Nursing home 2004 (14 deaths) – smoke inhalation main cause of death.

Services – Not properly designed

Large apartment building.

FSC Revised information -

“gas pipes will not be located within the protected corridors”

They Built -

- Gas pipes within protected corridors.
- No fire resistance on gas pipe side
- Poor Firestopping.

Result

- Ceilings removed. Replaced with 60mins shaft wall system.
- Delays & €€€



Who was liable for remedial costs ? Designer ? Builder ?

Key Points – Builder.

Designer is leaving responsibility to you if -

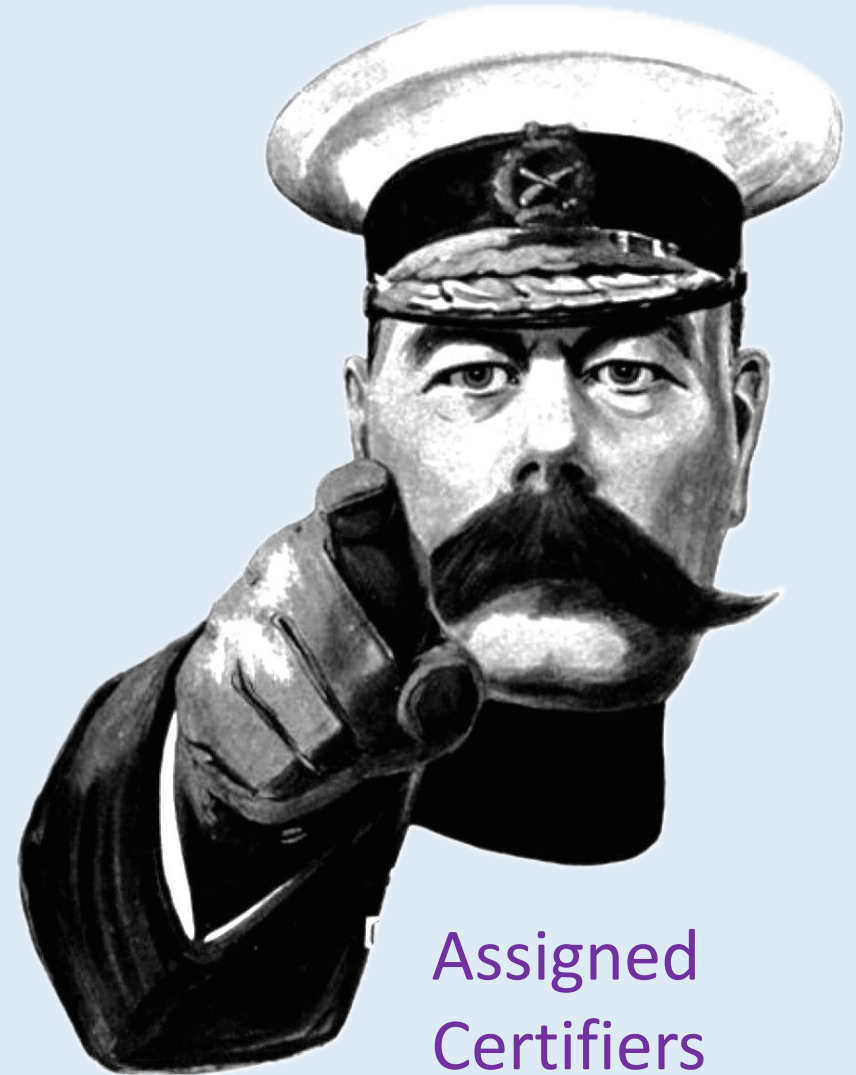


- *If drawings Certified in CN are not adequately detailed*
- *Design Changes which are not certified*
- *Undesigned elements, leaving detail to Builder* - e.g. fire stopping method
- *Builder led design changes*** - eg change from masonry to MMD

Details & finishes left to Builder → check performance required in the FSC/DAC
(don't assume it's what you did before)

Completion Stage

compliance issues



Assigned
Certifiers

Assigned Certifiers & Fire Safety Certificates

Stage	Certified by	Statutory Certificate
FSC/DAC Application	Building Control	Granted FSC/DAC
Commencement Notice	Design Certifier	CN Design Cert
Construction Stage	Assigned Certifier**	Completion Cert



Extract from A/C's section of Completion Cert.

8. 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 Building Regulations, insofar as they apply to the building or works concerned.

If a Design Change is made after the Commencement Notice –

the Assigned Certifier is the only professional who has to sign a STATUTORY certificate of compliance.

Care & Diligence

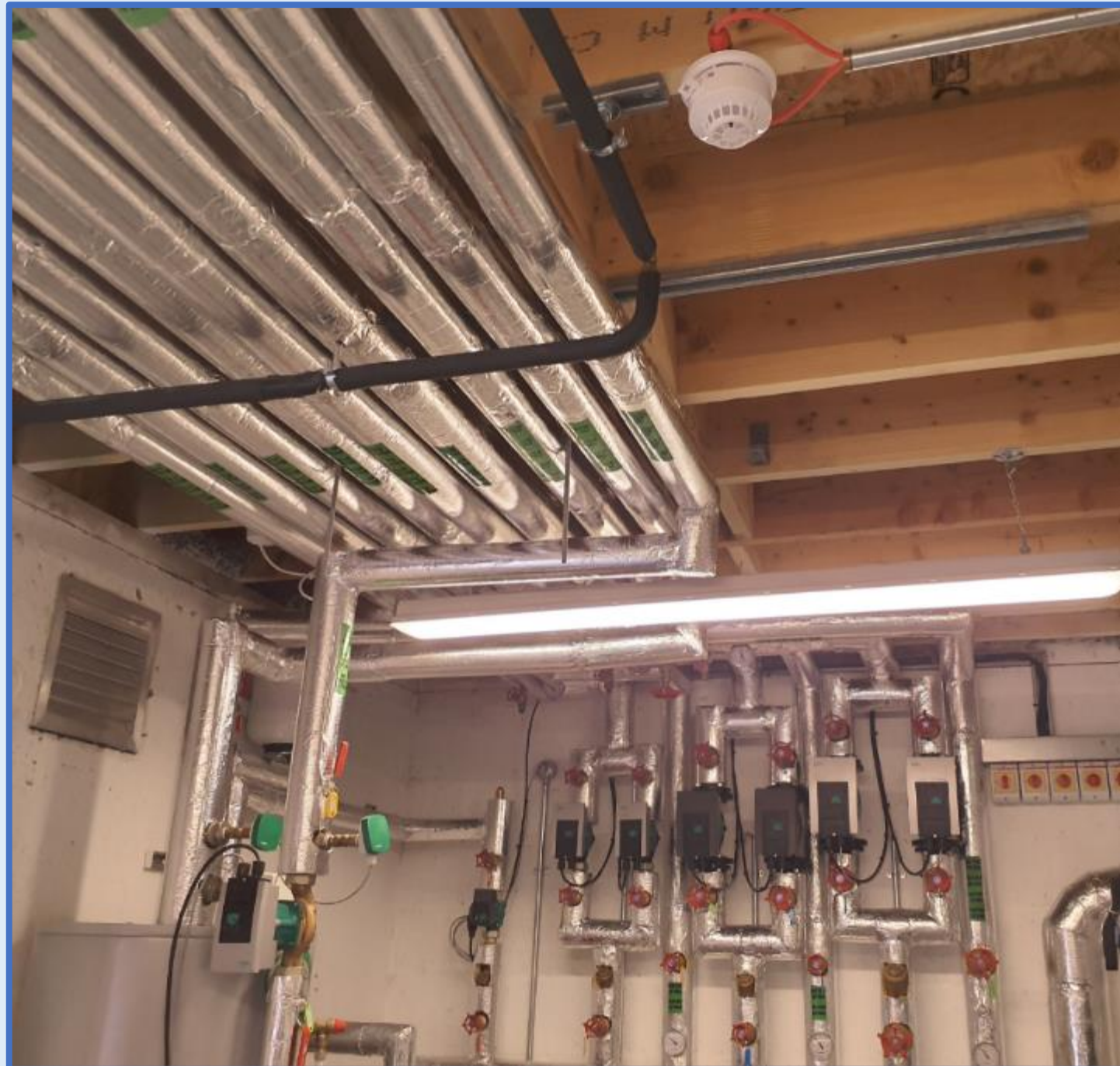
obvious defects

Large school extension

Photo of new Boiler Room

School occupied and boiler in operation.

Highest fire hazard in school
How was this not spotted as a problem ??



Reasonable Skill

Occupied New School Pipe in compartment floor

- Multiple such collars in plain sight
- Blatantly no screw fixings

Should know that -

- Unlikely to stay in place when activated
- Not to manufacturer's instructions

Note the Inspection tag attached by F/S contractor



Basic Detailing Errors

Completed Community Building.

I spotted this defect while putting on my boots in car park.

- Site team hadn't noticed.



TGD M requires handrails both sides of stair

Key Point – Assigned Certifier

Checking FSC/DAC compliance – probably basic due diligence.



If you haven't checked works are in accordance with the FSC & DAC
- how can you Certify that the Building is compliant ?

After the CN – the A/C is the only professional who has to sign a Statutory Certificate of compliance.

Assigned Certifiers should welcome BC inspection.

Every defect BCO identifies – is one less defect they would have unknowingly signed off on in the CCC.

Building Control Inspection

Advantages of FSC & DAC for inspections

Where Issues Arise –

- Don't need to re-argue Parts B & M
 - *That has already been done in the FSC & DAC*
- Lean on compliance with FSC/DAC
 - *they proposed these items after all.*
 - *Threat of Revised FSC/DAC effective*
 - *Threat of Revised Cert usually a good deterrent.*



..... It appears that “ X Y Z ” is not in compliance with the FSC/DAC which was granted

Warning flags – predicting site defects

- 1) Poor Applications *- If design @ FSC is poor – what will build be like?*
 - 2) Contentious elements *- will they just build what they intended anyway ?*
 - 3) Significant Revisions. *- Will they make it into the CN drawings?*
 - 4) FSC & DAC differences *- Will DAC revisions make it into FSC design?*
- 7 Day Notices a particular issue.
-

Contentious FSC & DAC

- Prioritise for inspection.
- Consider adding Reinforcing Conditions to aid inspection



Conclusions

Conclusions regarding FSC & DAC

1. FSC & DAC - not just a paper exercise
 - *Seems too many people forget about them after granting*
2. Compliance - is in everyone's interest.
 - *Protects your indemnity insurance*
 - *Avoids defects & remedial costs*
3. BCO Inspection
 - *Vital to ensure compliance with FSC/DAC*
 - *Assist Good Professionals to comply – not to punish*
 - *Help to avoid defects, cost & delays.*
4. Review System?
 - *Can't just rely on design checks. BCO inspection vital.*
 - *CN & CCC - should require confirmation of compliance with FSC/DAC*



Numbers of Building Control Officers

If BC was staffed in line with proposals on BC Regulator (500 vrs 57)

- **More early inspection**
 - *identify defects while easier to fix.*
- **Reinforce FSC/DAC process**
 - *risk of inspection = encourages compliance*
- **Assist good professionals**
 - *Provide guidance and assistance – help avoid errors*
- **Level the playing field**
 - *Reduce competitive advantage of “less good” professionals*

BC does not
“hold back”
developments

Building Control – Could help building industry to avoid defects, costs & delays.

I find significant defects in most buildings inspected → what about the ones I don't get to inspect ?



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