

Episode 153

How to comply with building regulations

The show notes: www.houseplanninghelp.com/153

Intro: Phill Skill is Lead Business Consultant at Stroud District Council (but he was Head Planner there for over ten years) and a member of the board at Gloucestershire Building Control Partnership.

He's the perfect person to give us an overview of building regulations, because he's got the experience but he's also good at keeping things simple!

I started by asking him what building regulations are?

Phil: Building regulations deals with the physical structure of the building, it's there to make the occupants as safe as possible. It's all about health and safety in and around buildings. That's its strapline, if you like.

So, it deals with foundations, wall structure, floors and drainage. It even now deals with some electrical supplies. But it also deals with what happens in the case of a fire. So, fire precautions as well. But effectively, it's the physical structure of the building.

Ben: Who created this in the first place?

Phil: It goes back prior to planning law. This goes back to the Great Fire of London. It was all about making sure the buildings were non-combustible.

So, the first building regulations were to stop people putting thatched roofs in built-up areas. Then we started with space separation, keeping buildings apart so the fire didn't leap from one to the other. So, we started with fire precautions and then moved on from there.

So, it really goes back to Pudding Lane and that Great Fire of London.

But the modern building regulations started around about the 1930s with the Public Health Act which dealt with it. The current version is enshrined in the 1984 Building Act.

Ben: I know that there are these various different letters. Is it worth explaining what all of these are? Or is this such an intricate part that it's really just down to the builder that we work with?

How much will we have to do or know about ourselves?

Phil: The onus of the building regulations is on the house owner, not the builder. So, if something goes wrong, we don't come after the builder, we come after the homeowner.

Now, you should have a contract with that builder which will indemnify you. So, if he or she's done anything wrong, we come after you and you go through contract back to the builder.

So, it's really important to know that the legal obligation is with the property owner, not with the builder.

It's not the same as in many countries but in England, you do not have to be qualified to be a builder. DIY is very popular because you don't actually have to have any qualifications to do the work. But the onus of it all comes back to the owner.

Ben: You are looking to fulfil a number of points on a list effectively. I know we're talking about a lot of stuff.

Phil: Yeah. It's not getting seventy-five percent and we'll let you build it, it's getting a hundred percent and we'll let you build it.

But what's important with the English and Welsh building regulations system – and the Scottish is very similar – is that there are regulations – and if you get a hold of a copy of the building regs., they're the bits with a green background – they're the regulations. Let's say for instance for the staircase – and I'll paraphrase – staircases should be built so you don't fall down them. That's the regulation.

Then there are these things called approved documents. They tell you how you comply with that.

So, the regulations are very simple, broad brush, motherhood and apple pie. The approved documents tell you how to comply.

For instance, stairs, it will tell you how high each step should be and how deep each step should be, what angle the stair should be, to

be useable. But the regulations just say you should be able to safely use a staircase.

Ben: How do you know that we are complying with these regulations then? Are we submitting our plans? Are you coming out on site?

Phil: The Scottish system is different but in the English system, there are two ways of doing this.

The first is that you can have a set of drawings prepared by a draftsman or an architect. They are submitted to the council, the council will take a few weeks to have a look at them, see if they're compliant, write to you and ask you to change them if they're not and at the end of it, you should get an approval notice.

It's your job then to build in accordance with those drawings. You can vary them but that's an intricacy we can deal with later.

The alternative method is a building notice where you don't put any drawings in and you get more inspections than normal. So, what we're doing is instead of front loading the operation with a set of drawings, this is back loading where we actually come out and see you while you're doing the work.

There are pros and cons. Obviously, the pro of not having all of those drawings is you don't have to pay an architect or a draftsman. The negative of that is now you don't have anything in which to have a contract between you and the builder. So, you don't actually know what the builder's going to build because you haven't given him any drawings.

The other point is that as you're building your house, we'll come and look at it after you've done it. And what happens if it's wrong? You're going to have to take it out, fix it and put it back again at your cost because you got it wrong, we found you'd got it wrong and you've got to correct it. Whereas with the drawings, they should be correct, you build to the drawings and you shouldn't have any problems.

It's all about front loading. I would never recommend to anyone that they build a house under the building notice method. They really should have their drawings sorted. They're going to need all sorts of other things like mortgages or an architect to sign-off on work, so they can get an architect's certificate. That's not my field but I do understand that's how that works. So, having the drawings is very important for building your own house.

Ben: Is this a service that the council is providing or are there fees that come with this stage?

Phil: Thirty-odd years ago, it used to be free and the local authority had a monopoly. You could only go to the council. Just like planning, you could only go to the council for building regulations.

Then in the Thatcher years, there was a change in emphasis and things started to be deregulated. You can now go either to the council to have this work approved or you can go to what's called an approved inspector.

An approved inspector is an independent person who verifies you're building in accordance with building regulations and they're regulated by the Construction Industry Council which is a QUANGO of government.

So, there are two different ways of doing it. There are a multitude number of approved inspectors and for each area, there's one local authority. So, you've got a choice of where you go.

The prices are pretty similar but what you'll get is what you pay for. I have to be careful because not all approved inspectors do this but most approved inspectors work on a risk assessment, a bit like an insurance company. They will assess your job, your competencies, how many buildings you've built and then tailor their inspection regime to that.

So, if you are a self-builder, doing it yourself, it's going to cost you a lot of money because they're going to have to come out more often. With the local authority, it's effectively a fixed fee regardless of whether you're Barratt's or you're Joe Bloggs.

When choosing between a local authority – and I'll be honest, I've always worked for a local authority so I've got a prejudice towards local authorities – or you want to go with an approved inspector, the best thing I can say is do what everyone else does and shop around to find out what you're going to get for your money.

As always, the cheapest is not necessarily the best. You're investing probably a year of your life building but you're also investing hundreds of thousands of pounds in this thing. So, getting it right and getting these details right is very important.

Ben: The council-led side versus this independent, are they qualified in the same way or is the training different?

Phil: The training is virtually identical on the grounds that most approved inspectors used to work for councils. Not all but most.

What happens is that local authorities train people and we're not necessarily able to pay people as high a salary as people would like and the private sector can. So, effectively they're all qualified to the same standard.

I think to be honest though, the local authority tends to have a higher standard because of the governance and the way in which we operate with councillors who maintain our policies and standards. An approved inspector will vary depending on who they are, a one-man band, part of a big organisation.

Again, it's about looking into who it is who's going to provide this service and seeing how good they are. Just like a builder, go and get some recommendations.

Ben: What would be the difference between a good building inspector and someone that's not so good?

Phil: A good building inspector will be somebody who tries to educate you as you're going along. A bad building inspector will be somebody who just turns up, says 'that's wrong' and walk away.

The law says that we're there to check what you've done, not to design it for you. That's what you have an architect for. But a good building inspector will offer you alternatives.

So, you might want to speak to them on one site visit and say 'we've checked the foundations. I'm not thinking of what sort of insulation I might put in the floor.' There are lots of alternatives and the building inspector might be able to channel you down a particular route depending upon your ground conditions. A bad building inspector would say 'go and talk to your architect.'

So, a good one is somebody who's there to educate, inform and tutor you along. And to some extent, that's also what you're paying for.

So, quality of decision making as well.

Ben: How thorough is this check on site? Is it 'oh, seen it. Tick the box'?

Phil: That's a good point. To be quite honest, the building inspector is not a clerk of works. They're not there all of the time. Legally, you only have to tell the building inspector you've got to a particular stage

and wait twenty-four hours. If they don't turn up, you can continue because you gave them the opportunity to visit.

Councils always will visit because that's our policy and that's how we get insured. As I said earlier, approved inspectors may take a more risk-based approach. But that's what you're paying for and that's how you do things.

But the way in which they do the inspections is that there are eight stages. There's commencement, which effectively is tell us you've started and we don't actually turn up. That's just getting the file out of the office and getting things ready.

Usually the commencement and the foundation inspection go together. So, you'd ring us up to say 'I've started and the foundation is ready for inspection' and we go out. That's the most important one because we want to see what the ground's like. So, you dig the trench out, we have a look at the trench, we usually jump down to check the bottom of it to make sure it's firm and then you can put the concrete in.

We should then come along and see how much concrete you've put in. That's the second inspection.

The next inspection is when you get to the damp-proof course level which effectively is about six inches above the external floor level and level with the internal floor level. That stops the rising damp that we used to get in all of the old Victorian houses.

We then want to see what's called oversight. That is before you put the floor down. So, again we want to make sure that insulations have gone in, any reinforcing's gone in and that your floors are going to be stable.

Then there are a couple of inspections for drainage. One is I want to see the drains in the trench opened up, so I can check that they're all in a straight line and every time there's a change in direction or a new pipe comes in, there's a manhole. We call that lined and level. Then the other one for drainage is almost at the end of the project, we'll either put a water test on it which is to stick a bung in to the last manhole, fill it up with water, come back in half an hour and see whether it's gone down. Or we can do an air test which is very much quicker than that.

Then the last one is the completion.

So, between effectively damp proof course and floor level, we don't see it again until it's finished.

Ben: I'm trying to work out the logic of that. So, you're not really that interested in the structure going up or anything like that. Once you've sorted out all of those bits on the foundation, then that's it?

Phil: Yes. As I said right at the beginning, the onus of complying with the building regulations is on the owner, not the building inspector. The building inspector is there to cast an eye over it for reassurance for future owners, that it's been looked after.

It's not really a check for you. The bit we do for you is to help you out with guidance and information. It's so that you can get your mortgage. It's so that you can sell the house because you'll need a building regulations certificate to prove that it's worthy.

Above ground level, there's not a lot that can go wrong with a house. We'll pick up at completion things like fire doors, flues, chimneys, above ground drainage. We'll check the trap under the sink, the bath has got a trap on it to stop the smells getting up. There's a lot of things that we can do at the end of the job but nothing to do with the superstructure.

But in Britain, a lot of the superstructure is either masonry, so brick and block – not a lot you can do wrong with that. We've checked the damp proof course to make sure it's not going to get damp but after that, it just goes up and there's a roof put on top of it. The alternative is that it's timber frame which is very much quicker, in which case you've got a contract with a specialist supplier to provide those.

If you put that in with a full plans application, the one with the drawings, we'll check the calculations to make sure that they've done it right. We'll check that they're competent at structural design. If you're doing it on a building notice, you've got a contract with them. If it falls down, you go after them for failure to comply.

The way we describe it is that it's like a policeman on a motorway. The speed limit is seventy miles per hour. We will check that you're doing seventy miles per hour. But you can drive faster, it's just if you get caught. So, it's about being there to help moderate the industry and keep the industry compliant rather than a clerk of work so, somebody who's got a hut on the site and who will check everything for you. A project manager. We're not a project manager. We're a statutory function.

Ben: So, what happens if things go wrong? Can you give us some examples just so that we can understand it? Are we talking worst case scenario, take down the building?

Phil: I've never been to that situation. Usually with foundations, we'll get there and they might not have gone deep enough. They might be close to trees, so the roots of the trees are still coming through. That's a case of getting the digger back in and digging some more out.

We have had situations where people have just gone along and forgotten to talk to us, forgotten to ring us up. Well, in that case we might do trial holes at the side to check how deep they are and to make sure that they're down all the way. But the onus is still on the owner to do it.

Obviously, during a career as long as mine, there have been situations where the builder and the owner have made mistakes and cracks have appeared in the buildings and stuff like that.

Cracks themselves, ninety-nine percent are superficial because buildings are so robust that even if you do make the slight mistakes, what will happen is the plaster will crack because the floors will flex. They won't collapse, they'll just flex and every time somebody walks, the floor bounces. Well, that's because they've put the wrong sized joists in. So, it's rarely ever catastrophic.

The bits that we do get really uptight about is things like fire doors because if they go wrong, that's big news. That's people dying. A bit of economic loss, that's insurance to sort out and stuff like that. But if you're in a three or four storey house and there's a requirement to put fire doors with self-closing devices, springs and whatnot, then if they're not there when we do the inspection, you're not getting your completion certificate because that's got to be right.

We know that people will take those springs off because they don't like the fact that their bedroom doors are always shut. They like the doors open. But they're there for a damn good reason. They're very expensive doors, they're very heavy doors and the way in which they work is to protect you. On a two storey house, there's usually no fire doors in there.

The building regulations have moved on now as well so that we've got things like smoke detectors and carbon monoxide detectors. Even the building regulations now require the light and power sockets to be at a particular height so that as you get older, you'll still be able to use them.

In my day, the power sockets were down at the skirting board level. Now, they're a good couple of feet up the wall. Designers hate it because they like to see a nice, clean, pristine wall and there's all

these sockets. But the building regulations is becoming more about that sort of thing, about raising the standards with the builders. It's so that builders know what they've got to build to.

Ben: You've mentioned how the onus is very much on us. But presumably, this is something that the builders have to get their heads around and the architects have to get their heads around because all of these little things, much as we might want to stay on top of it as well, if it's evolving, how can they stay on top of it? Or are they just advised as it progresses through?

Phil: There are about fifteen approved documents ranging from foundations through to fire and electrics and stuff. The government has a process of only changing three of them at any one point. So, the speed of change of the building regulations is relatively slow too, it's not too difficult for architects and builders who have been in the trade for a while.

If there is a major change to any of those, it is publicised in their trade magazines and all they've got to do is ask the building inspector or the building inspector comes along and says 'don't forget that's changed now. You've got to do this, you've got to do the other.'

What changes far faster is products. So, insulation for instance is a nightmare to building inspectors because they keep bringing out new insulation. So, we'll get out on site and say 'hang on a minute. You should have two inches in there' and actually it's now gone down to an inch and a half because it's now even better.

So, the products are changing far faster than the building regulations and that's the bit that the builders and the architects are having trouble keeping up with.

Ben: Is there a link at all between planning and building inspecting or are they two completely separate things?

Phil: I would like it to be more of a situation and have preferred the situation where somebody gets permission to build, not planning permission, conversation area consent, listed building consent, building regulation permission, discharge of sewage permission, all those other permissions that the people who follow you hear about you waxing on lyrically about continually.

There's all these different permissions and I would far prefer us to have one permission, a permission to build. You get all of your permits and off you go.

But it's not like that. Government departments don't talk to each other. And also with the separation of approved inspectors from council building inspectors, that link has gone. So, if you're using an approved inspector, there's no connection back to the local authority at all.

Local authority building inspectors resist like crazy being the eyes and ears of the planners. But they do tend to be a liaison. They don't usually come on site trying to catch you out with a planning condition because they don't care. They're too busy doing their own job. But if you've got a problem, they can be quite helpful in getting that over.

I've got feet in both camps but it's a lot easier to see when a planner is faced with a change in a detail on a property. 'Oh, I don't like that. I want this size window.' To actually have the building inspector on the client side saying 'no, that window has to be this size because it's an escape window. It has to be wide enough for the fire brigade to get in with an oxygen tank on their back and for people to escape so, sorry it's got to be there and that size', at that point the planner steps back and says 'whoa, hang on. That's fire precautions. Can't handle that.' So, you get what you want.

There's always a compromise between the two systems and a lot of the variation of conditions that the planners get are generated at the construction stage because the architect missed something, he's tried to make it all nice and pretty for planners and then it won't work when he actually comes along to try and build it. So, those variations have to happen.

If you've separated the two and gone with an approved inspector, one of the sacrifices you've made is having that voice in the council to help you when there are those conflicts.

Ben: You may not be able to comment on this but are any of the regulations just overkill, have got into a list of too many things? Or is this all just common sense stuff?

Phil: As I said right at the beginning, the regulations themselves are the green bits. They're motherhood and apple pie. It's very difficult to argue with them. The one on structure says the building should stand up, be safe and stable. Yep, okay. I get that. Now, how is it actually done?

Most of the regulations are quite simple and a lot of them are empirical. They are by trial and error. They have come about through years and years of experience.

So, yes. My brother-in-law is a fluid dynamacist and he could tell you how much water can flow down a pipe at a particular gradient. He deals with oil but that's beside the point. He could work it all out to within millimetres and whatever. But the way we've got to how our pipe size is that we use in properties is firstly because they're only made in so many sizes and that's your lot, and secondly, over time we've worked out how shallow the gradient is to get from a bath or a shower to the soil and vent pipe.

So, the rules are set out because actually they work. Sometimes you can make them more shallow and sometimes you might make them a bit steeper but within that variation, they work. So, why would you want to change them? If you change them, you're actually making a mistake.

Probably the one set of regulations which is a complete nightmare is thermal. The amount of glass to wall and the U-values. There are so many different ways of doing it. The government gives you a rule of thumb system where it says how much glass you can have per square metre of brickwork with certain thermal values. But what that does is hamstringing the designer because he can't have the big glass façade and all the rest of it.

The building regulations don't particularly care about whether it's south facing or facing east, whatever. Whereas the designer wants to take advantage of the south facing but he doesn't actually want the building to overheat so, how's he going to ...? So, there are all of those trade-offs.

The regulations provide something called a notional house. If you complied with all of the rules, that's how much heat is going to leave. Now design your property so less heat leaves. That is a huge amount of work for a designer to deal with. Then you get the brick layer who misses bits out and it doesn't work. So, it is quite fragile, the designs at those stages.

I suppose the other one that's always a pain in the backside is you actually have to have properties air pressure tested to make sure they don't leak. You have to have a huge, great fan Sellotaped to the front door blowing air in and checking the pressure and how much air is leaving.

To some extent, they're going a bit overkill but you can also see that if you want a Passivhaus or a highly thermally efficient house, that's the sort of level you're going to have to go to. And as houses become more and more technical, these regulations are going to get more and more technical.

Ben: What else?

Phil: There are regulations that some people push on and some people don't.

It usually comes into commercial properties but Part M deals with access and facilities for disabled people. The regulations assume a standard disabled person and there's no such thing.

If you've ever been into a toilet for a disabled person in a shopping centre or café, it will always be set out in the same way with a Monobloc tap on the sink which has to be so far away from the toilet and there's all the grab bars that come down and all the rest of it. To some extent, you can see why they've had to standardise on that and try to get as many of the different disabilities involved.

But then when it comes to a workplace, you still have to kit it all out. Even if you don't have anybody with disabilities but then even if you did have somebody with disabilities, they would be set out the same way regardless of the disability of the person.

So, quite often we will talk to businesses and we'll make sure that the physical arrangement is there. So, the size of the toilet and the size of the facilities is always there as well as some of the basics like the washing basin is in the right place. Then the owners will work with the occupational therapists that are dealing with the disabled person themselves to work out what they need. Do they need a grab rail there? Do they need something there?

So, sometimes the regulations actually stifle the innovation for designers but also stifle the ability of the user to get the best out of it.

Ben: Just rounding this off, you mentioned the certificate that we would get at the end of it. What does it mean or is it just that the process is over?

Phil: There are two pieces of paper that you should have.

The first is your full plan certificate to say that the drawings were okay. If you did building notice, you avoid that one.

The most important thing that every job should have is a completion certificate. This has caveats on it. So, to the best of our ability, we certify that the building is complete and compliant. But it's not a warranty and you can't sue the council if it isn't. Because don't forget, it was your fault because the responsibility is on you, not the council.

If your builder made a mistake, you have a contract with that person and English law is very specific. You go under contract. It used to be under negligence under the law of tort but it is no longer. It's about financial recompense and that comes through contract.

Yes, you have a contract with the council because you paid them some money but that's a statutory contract to provide something. You've also got a contract with the builder, a contract with the structural engineer, a contract with the timber frame designer. If any of those things go wrong, the first port of call is back to them.

The certificate therefore has minimal value in actually giving you a warranty. It isn't a warranty. The warranties you'll need are things like your NHBC or some other forms of warranty.

The other point about a completion certificate is your solicitor wants it. For some unknown reason, they won't convey your house without one. That's great for the profession because you have to have that completion certificate.

And you cannot sell a property without it. There was a famous case going back five or six years ago, where a solicitor lost his licence and everything because he didn't have a completion certificate for an extension. He didn't do his job. Now the solicitors are so hot on it, you have to have all of the paperwork before you can convey. That's the important bit about it. Keep it safe.

Ben: Is there anything else in this conversation that we should be mentioning, remembering? Self-builders, perhaps a lot of them are like me and don't fully understand the building regulations and we're just trying to fill in all of the pieces of information.

Phil: For self-builders, it's an uphill struggle because you've not come across these regulations before. The advantage you have is all of the building regulations are free to download. The Planning Portal's got sections of it but a quick search will get you them.

And they are in relatively plain English. You don't need a doctorate to be able to read it but you have to be relatively intelligent. But you wouldn't be embarking on this if you didn't have some knowledge.

So, that's all there.

If you're going to be self-building as in project managing it, then you should really be thinking also about getting people who understand these things. So, employing an architect. That's the best thing. I would always suggest that you talk to a reputable architect or draftsman to get your drawings done. That's the big battle over. As

long as you build to those drawings, you're bullet proof. It's when you decide to do it under a building notice.

So, my recommendations to people are to always use an architect or a draftsman to design it and always use proper contracts with your builders and any sub-contractors you use and build to the drawings.

Ben: Phil, thank you very much.