

Episode 130

A Passivhaus barn that embraces contextual design – with Lisa Jackson

The show notes: www.houseplanninghelp.com/130

Intro: Lisa is a self employed planning consultant and in 2010 she and her husband took the decision to put their construction industry knowledge to good use and embark on a self build project. Originally designed as an energy efficient barn style house, they later managed to adapt the design to make it a certified Passivhaus.

I started by asking Lisa to tell me a little bit about her background.

Lisa: I'm a mum. I've got two children, a husband, a wedding anniversary 20 years tomorrow. I took a planning degree, first degree and then really got into design so I did a postgraduate in urban design whilst practicing as a planner at local government. And from there moved around a bit, different authorities and then went to work for a planning consultancy based in Winchester. They moved to Southampton so I then started working from home and I got the idea that actually I could run my own business from home and that's what I've done for the last 7 years.

Ben: We're recording this in a house that you have constructed a couple of years ago and we're going to be talking about that as a case study. Does it make it easier for you being an insider, being in planning, or was this still a massive journey?

Lisa: No, I think that being inside planning and construction was a huge help and also my husband, he's also a town planner, he runs the planning department locally. Not the area we live in but the adjacent borough. And his background actually was in construction first so we made quite a good team.

I had become a code assessor. I had done the exams thinking it was going to be really useful. Shame they ditched it! I never assessed a single home but it got me into the idea of energy efficiency and that we could build in a different way, and I suppose

those skills were hugely helpful for me. I was the sustainability queen and my husband was the construction king!

Ben: Let's talk about the plot first of all, because this was an interesting one.

Lisa: Yeah. We owned half the plot and actually we had no intention of building a house. We bought the house next door which was our third doer-upper of our marriage and our second house in this village, this area. We knew we could do something with the house.

We'd heard and we'd seen that planners had refused various attempts to enlarge it, but it was a tiny two-bed cob cottage, car crashed into a 1970s extension.

And we just knew we could do something with it and so we designed two schemes – a traditional brick and flint type extension that was refused planning permission which we won on appeal, and a much more contemporary revamp of the 1970s with no idea of sustainability or anything.

But when we sort of then costed it we went, we can't afford this. So we were living with a house that was a disaster. The worst house in the village on a really good plot, and thought well we've got to make some money.

And we saw the opportunity with the plot the house we now sit in, and we were going to do a deal with a neighbour who owned the land. And so we approached him and he said yes I've always wanted to build a house in the village. And in fact he'd built an illegal house on the land behind us now, which he was made to demolish. He thought he could just do it without any consents and get away with it.

And so he then sort of pondered on it and came back and he said well actually I'm a bit old, he was 80 at this stage, and said I think it's too late in my life to build it, but if you want to do it I'll sell you half the plot. So we had half the plot, we had the access point and the other chap had the frontage and so we did a 50/50 deal.

We drew up an option ourselves based on if we could get planning permission. Our solicitor sort of was horrified when we came to actually do the transaction he said I cannot believe that you used this as an option, but we did.

Ben: Slow down a bit here because I don't fully understand this. I get options a little bit but the first thing that I would think about if I did this in my area, the person would want a ridiculous amount of money for it. How did you deal with that first?

Lisa: Yeah, well we knew that. We knew it had to be properly valued so we paid for a valuation through an RICS red book valuation, so that was based on how much the end property would be worth and how much the planning permission would generate and the cost to build. And so they came up with comparables with what the plot was worth and then they decided that because we had the access and the other chap had the frontage it was a 50/50 split.

Ben: So you were totally fair in other words? Right, got it.

Lisa: Absolutely. And our approach was we were never going to do a deal with this chap if we didn't approach it as a proper business consideration. Okay we had all the inside knowledge but we wanted to be fair. And that was important. He was canny, he was old but he was canny and wise. And he was a businessman himself and would take professional advice, so that's why we were careful in our approach to be completely professional in our dealings.

Ben: Let's see if I understand the option part of this. So what you were saying is you were trying to go through planning before you'd put any money into this at all, having arranged this deal?

Lisa: Yeah. Well you can make a planning application on any piece of land whether you own it or not. You don't even have to have an option on it and this is something that people do not realise. You just have to serve notice.

So we knew that we were quite, in a legal sense, we were fine to make a planning application. But actually if we'd made the application and the consent had been granted suddenly we could have been faced with a difficulty in him not wanting to do a deal. So we said right, okay, we can do all the planning. That's our thing. We will make the planning application at our risk if you will enter into a formal arrangement, which was just an exchange of letters between us, that should planning permission be granted, the owner gave us an option to purchase the land required to make the site work.

Ben: And that's all legally binding, so job done? Oh no, it's not.

Lisa: Well, our solicitor said well actually it wasn't really legally binding but it gave us enough comfort to go ahead and the small risk of

making the planning application which was not a lot because we did it ourselves, we drew our own plans, we filled in our own forms, we did all the survey work and everything ourselves so therefore the costs to us were low. I understand obviously if you were having to go and buy that professionally that would be a huge cost and you'd probably want your option slightly better.

Ben: What would have been the worst case scenario?

Lisa: The worst case scenario would have been perhaps had we managed to get planning consent and he'd said no. We'd have been really stuck.

Ben: But no one else could build there could they?

Lisa: No, exactly and I think the huge advantage was we had the only access to the site which put us in a pretty much a ransom situation. So you could have said really we perhaps would have been able to ransom him, but it wasn't his land.

Ben: It worked out far better than that didn't it?

Lisa: It did. Indeed. I don't think we were scared that we would not get planning. That was relatively easy. But again if that had been refused we would have appealed.

Ben: What did you put in planning for?

Lisa: We applied for a house that looked like a barn conversion because we're sat on a site that had a single storey shed. It would be generous to call it a barn, a shed. So agricultural in style and we applied...

And it's an infill plot, so between a thatched cottage, not listed, and a small one and a half storey bungalow. So we had to get something that was relatively low key and what we would describe as contextual in terms of design. And we got consent for a four bedroomed house.

Ben: Yet this was not the end was it?

Lisa: No, not at all. Because having got consent for a four bedroomed house and being able to proceed we knew we had to sell our own existing house in order to build the build, our house that we had now decided we wanted to build.

And during that period we experienced the really cold winter of 2010 with all the snow. And I was sat at home in the cob cottage freezing, spending money on oil like it was going out of fashion, thinking there has to be a better way.

And so at that point I started investigating Passivhaus and I picked up the Green Building Store's DVD on the Denby Dale Passivhaus, the masonry construction. It was probably that that we started with, is that actually well we could build this house. We could build as a Passivhaus.

And I think at that point, having not sold the house and the market dropped, we went to Ecobuild, just to see what was out there. Could we find products, could we find solutions that worked. And so we went and looked at whole house solutions and I did quite a lot of research before I went looking at the Scandi house, all those Scandinavian versions and kind of oh gosh, they're really expensive. And then found Touchwood Homes who, British firm, timber frame, and thought actually this is a better solution perhaps.

And at that point we thought okay, we could make this really efficient. Then we got into the idea of a Passivhaus from thinking about it and there was a good marriage between Touchwood and Passive. They'd done things that were very close to Passive at that point and so really at that point we said okay, let's investigate a Passivhaus.

And I was working with some energy consultants who very kindly looked at my plans and went actually, you don't need to change this very much and you could get to Passivhaus standard.

So simple things, we increased the height a little bit in order to get the insulation, which is obviously super thick on a Passivhaus, and we changed the fenestration because we had too much north glazing. We had to get a better balance of south glazing, but really we were quite close in design terms to the Passivhaus standard anyway, which really helped.

And so we then made a section 73 application which is an application to vary the plans so you're not looking really in principle, you're looking at changes. So a more straightforward consideration of a planning application. And they do issue a new consent, but effectively it's a more lightweight consideration of the issues, having got the house, the new dwelling agreed in principle.

Ben: Let's talk about that planning for a second. Is this very common or would you be worried about anything?

Lisa: Developers use it a lot as a trick, but most people think that once they've got planning permission that's what they need to build. And the answer is no. Go back and revisit. If you need to revisit, so few people use it and actually it's a really powerful tool to go and, if you like, improve. Because in a design sense you don't stop when you get to the point where you've got planning permission. You're thinking, thinking, thinking. Can I make it better, what can I do? And you shouldn't really be hamstrung by a consent if you feel actually I really need to change it.

There are small things you can do called non-material amendments which the councils are allowed to consider, but an awful lot of the bigger changes that you'd want to make would need an additional planning consent.

It's the time delay more than anything that I think people are scared of, and they seem to think they're going to lose their consent. Well they won't, because the consent they have already is established.

Ben: Sometimes when you're looking for properties as well on websites and it does feel a bit weird that you're going to buy a house that's already been designed for this land, so I don't know whether you have anything to say on that?

Lisa: Well this is the thing, I mean if someone has in principle got a dwelling, a consent for a dwelling, there is nothing to stop someone revisiting that. And you may not want to live with someone else's, and probably don't want to live with someone else's design. So people really shouldn't be sort of pigeon holed into thinking well I've got to implement that. That's what's got planning permission.

There's every opportunity, if it stays within the sort of constraints and doesn't do any harm. Because planning's in the public interest. It's to protect the harm of the adjacent dwellings or the area, the character of an area. It's not there to say you have particular interiors or even some of the external features could change.

Ben: When you submitted the plans, were you in any way taking into account knowing this area and this region and what they like? Does that make sense?

Lisa: Yeah, absolutely. And it's really key. I mean my philosophy to clients is don't make a planning application for what you want, you

have to make a planning application for what you'll get consent for. Make it policy compliant, look at all the guidance and there's a lot of guidance in conservation area appraisals and village design statements and character studies. You need to hit those targets. If they outlaw particular styles you have to pay regard to that. And so if you want an easy route through planning, look at what's got consent locally, what works, and look at guidance. And for us it was easy.

And things like scale are the key things. Scale and contextual design, so we used a tile that was local in the villages. We looked at the height very carefully and drew street sections to show that it wasn't dominant on either of the dwellings either side. It's not just thinking about your house and what you want to achieve, it's thinking about how it fits in its context and so often architects and I daresay self builders, lose that. And you'll end up wanting desperately to build the house that you want, and not paying any regard to its context. And that more often than not is the reason it fails.

Ben: Before I hit record on this interview you gave me an interesting tip. I don't know whether I'm stealing your secrets here about submitting some drawings that have been done with pencil.

Lisa: It's about approach isn't it. I was a planning officer and when I used to get a new file I was really excited and you'd open the plans and your heart would sink so often. Things were badly drawn, bad CAD and it just, you know. Where was the love, where was the feel of it. I personally love hand drawn designs. I know it's old fashioned but actually it gives a nice feel for it.

And I do think that when you present your drawings think really carefully about how they look. What will that planning officer think when they open the plans? Will they go, oh goodness. Because so often CAD does not represent how the building will look. There's no light and shade, there's no feeling of the materials etc. So presentation to my mind is everything and winning over the hearts and mind of that planning officer, because that's what you've got to do and they've got to love it like you do.

Ben: Coming back to the house, and you made it sound almost very easy to convert your original barn style idea into a Passivhaus. Was there much more to it than that or was it just a case of upping the insulation, making sure of good airtightness, blinds, windows you've talked about.

Lisa: Yeah, well we had to do all of that but we also did the science and we have the PHPP verification because I decided from a business point of view that it was important that we got certified. And it's a classic thing I say to people. They go why do you bother, it costs more money. And I said well, couple of things, it's a business model. I wanted to show other clients and I have persuaded clients that they should go for certification.

Secondly, you try and sell a house without radiators. How are you going to do it? You've got to think of re-sale and so if you have the paperwork, if you have the science, if you have that great big excel spreadsheet, you can demonstrate to people that actually yes it does work, it will work, and it does what it says on the tin.

Clearly living here is a different thing. You can tell people what it's like but people want certification because they would be buying something really unconventional.

Ben: The build itself, you said you had to sell or maybe that was just at that point in time, to be able to start this. Is that what happened, and if so where did you go?

Lisa: Right, we decided to stay close to the site which I have to say top tip for any self builder be as close to the site as possible, and we rented a little cottage down the road. We did think about the mobile home on site for all of 5 minutes but I'm running my own business and I just went no, I can't do that. I really can't do that. And I take my hat off to those brave people who do live in a mobile home on site. We rented a house down the road on a short term and that worked out really well. Yes, because we did have to finance it through our, basically the equity we had in our old home. And towards the end with extra borrowing!

Ben: Maybe we'll get to that in a moment. What's the construction type and was that a fairly easy process? You mentioned Touchwood.

Lisa: We have a simple, light and tight as it's called, timber frame, pre-cut off-site and insulated with Warmcel which is the recycled paper. A fantastic construction technique, very easy, very straightforward. Touchwood were good to work with and their marriage on the Passive front, so they introduced us to Dr Roderick Williams who was fabulous, who did our PHPP work. And yeah, they know what they're doing. They know about airtightness.

Slightly unusual in terms of the Passive world because it's externally airtight and externally wrapped. We have no problems

with that whatsoever. There are those in the industry who question that but it works and there's no doubt that it works.

Ben: What about the construction process itself? Anything that you feel you should mention about that time?

Lisa: It's hard work! And it's not for the faint hearted I think. There are a lot of competing things all the time with making decisions. And the thing that we found, we assembled our own local team of tradesmen and we were very lucky every single one was great. We knew them all from before because we'd done a lot of houses up and through recommendations. And so really good team.

But there are certain things that just simply fall between skills and you have to do that if there's no one else to do it. So we did find ourselves an awful lot of the time filling in the gaps that other trades don't do.

Ben: What do you mean?

Lisa: There were odd bits. Insulating around the windows for example was not something that was done by the Warmcel because it was a particular type of insulation, it had to be done differently. So we had to do that.

Ben: It's made me think because we recently created a module in The Hub on sweat equity which is a tough line to tread, because I hope to do as little as possible because I'm a bit of a disaster when it comes to DIY, however there are pretty nice savings and obviously towards the end the budget was tight.

Lisa: Yeah, absolutely. And the sweat equity, we did lots of that. My husband is particularly helpful and handy and fabulous at DIY and so he wasn't afraid of doing any of those tasks. And I mean even for example digging a trench to put a cable in because all of a sudden it was well it's coming on Monday and there isn't a digger on site. So he came out in the rain and did it himself.

Ben: That's proper sweat equity!

Lisa: Yeah yeah. Proper sort of sweat equity! Things like painting and decorating, we did some of it but frankly it was a huge task.

Ben: And the equation is there that if you can be earning more money somewhere else where are you better placed.

Lisa: We had a bit of an odd one, because my husband right during the construction got cancer and had an operation. And it sounds hideous but actually it's the best thing that ever happened. I mean that really does sound bad, but he was a lucky one. He caught it early, it was a kidney and they had to remove a kidney. He didn't have to have any radiotherapy or anything, but he had to spend quite a long time recovering, and so he took on project management which was brilliant because I was trying to run the business and earn money and actually the amount of time you need on project management is much more than we'd anticipated.

So his recovery, which I think helped him recover, and helped me just keep going, was to come on site and sort of sit quietly and direct things in his recovery phase which worked really well! And bizarre, and bonkers, and not the thing you want to happen during a build, but actually it was probably one of those fortuitous things that he had additional time.

Ben: Well you hear of all sorts of things don't you, the family arriving as you start to self build, it's one thing or another! And at least you got out through the other side.

You also mentioned money a while back. Could you see this coming and how easy was it to get more money when you got to that stage?

Lisa: No, it wasn't that easy. I don't know if you remember, the fiscal cliff that the Americans had? It was that winter that we were building, 2011 I think it must have been, and we had our own fiscal cliff because we kind of looked at what was left in the bank and the advances of the mortgage and looked at what still needed to be done and who was on site and there was a huge gap. There was a gap of £60,000.

We borrowed some of it from mum-in-law, sadly she's now died. But that helped. That was one thing. And then we managed to extend the mortgage, but trying to extend a mortgage on a self build, the ridiculous thing, the Halifax man came out and when he initially came out he said okay, what sort of glazing are you having? Double or single? I went triple. He said oh well I'll tick both boxes then.

Honestly, they just haven't got a clue about what self build is, how it works as a product, how money's advanced, how you need the money, the stages. It's a nightmare. We were lucky because there was a lot of equity just in the plot itself. And so it was never that

tricky, but it's just that moment of I need the money now, I haven't got it, I've got to apply, I've got to go through the mortgage broker. We had a fantastic mortgage broker and he was a huge help. So it's that kind of thing that makes a difference.

Ben: How long have you been in the house now?

Lisa: We've been in three years.

Ben: And what's it been like?

Lisa: Fantastic. Absolutely fantastic. I mean when we moved in, because we were short it was still a building site. And I have said to everybody this is a building site that slowly is becoming a home and it takes time. And a home isn't just about a building, it's about memories, it's about events, it's about experiences. And so we've begun to have the birthday parties and the Christmases and all those things that make it a home. And it's the memories that the children will build up of it as a home. We still haven't got the curtains in the front room because frankly they were not a priority! And slowly, slowly, you add to it to make it homely.

The building site bit went when we attacked the garden two years ago and did a major scheme of landscaping. And making the garden for me also makes it more of a home.

Ben: Yeah, I've seen a few houses that have come short towards the end and it is unfortunate that it's the landscaping that suffers. And I think you're right.

Would you have any advice for someone coming fresh in wanting to build their own energy efficient home?

Lisa: Take good professional advice. If you're struggling with the planning system, which you often will, find a good local consultant and the Royal Town Planning Institute have a good list of local consultants. Don't necessarily go for the big firms. Small one man bands, which there are a lot of, like me who can advise. Look at who's managed to get planning permissions in your area. It's not difficult to do, just go on the planning portal and look at the agents. That's one thing I'd say.

The other things, we should have had a lighting designer because we slightly over-specified on lighting! And that's one of those luxuries that with hindsight I would love to have had.

I think you have to be brave and you really really have to be prepared to put in the work because it's hard. No doubt about it.

And it's funny. My husband says that sometimes he can even watch Grand Designs and have palpitations of remembering that thing of running out of money and thinking oh dear. Every time on Grand Designs it's always they've run out of money. That's the nature of self build, I think it's the way the finance is structured. And he says he still finds it hard to watch that. And he reckoned he took a couple of years to recover really from the whole process. But he is talking about the next one.

Ben: Love it. Lisa, thank you very much.

Lisa: Thank you.