

Episode 108

Progressing your house build plans before you have land

The show notes: www.houseplanninghelp.com/108

Intro: I met Kirsty Maguire, from Kirsty Maguire Architect Ltd, around 18 months ago when Regen Media filmed one of her projects (which went on to win a UK Passivhaus Award).

If, like me, you are searching for land but feel that your house plans are just not moving forwards, is there more you could be doing? Well Kirsty has some advice. She outlines a feasibility study she uses with potential new clients to help them develop their ideas.

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

Kirsty: So my name is Kirsty Maguire. I'm an architect based in Dundee in Scotland and my practice works across the country and internationally. Most of my clients are private domestic but I also work commercially and also with some charities and with United Nations which is the main reason that I get to do quite a lot of travelling across to exciting parts of the world, such as Armenia and Georgia. But most of my projects are here in Scotland from Ayrshire all the way up to Moray and everywhere in between. So one of my new projects is on the island of Luing, but it's also fantastic to have projects on the doorstep.

Ben: Are you working such a large area just because your services are in a niche really?

Kirsty: I suppose that's likely to be the case. Because my work's quite specialist with the Passivhaus and eco-architecture I suppose it gives me the opportunity to work all over the place and there aren't that many architects in Scotland at the moment who specialise solely really in that and have the same kind of track record.

So I often work with clients because of that but I also have a lot of clients who I have worked with over a long period of time and as they move house, or for example get a holiday home or a new business in a different place, then they often come back to me which is fantastic. So I think it is because I'm quite specialist, yes.

Ben: Now I'm really trying to get your services today to help me on something I keep thinking. I'm looking for land at the moment, I've put in a couple of bids but I've got nowhere. But I keep wondering, are there things that I should be doing in the meantime? I'm sure there are because all that's going to happen is later down the line once you have the land, once the architect's in place and so forth, then all of these decisions and things I could have been thinking about I'm going to have to make quite quickly aren't I? So that's what I'm hoping today can be about. So where would we start?

Kirsty: Well the first question that I would always ask is what are you looking for from your project? And so are we talking specifically about housing here for your podcast?

Ben: Yes, yes it's always about housing but let's try and think about my own situation here. So it's going to be a fairly small house, probably 100-120m² is what we're aiming at and that can be quite tricky for the land as well because any small piece of land, everyone's going for it. Or if it's a slightly bigger bit of land then people want to put ten houses on or something. So we'd like a garden as well, some land around it. And we're searching in quite a clearly defined area. We're aware that if this keeps on going, being quite hard, that we might have to broaden out. So that's the starting point really.

Kirsty: So it sounds like you've got great ideas and you're quite clear about what you'd like from the house and so what I would suggest doing is to put you in a really strong position when you're bidding for any plot of land is to do a little bit of a feasibility study and develop your project brief. So what we can do is sit down together and look at what you would like from your home in a bit more detail. How you might like that to be designed in terms of both performance and style and then start to talk about some of the more practical sides such as budget, and some of the things like what might be in terms of site constraints, things that might put you off a site that might otherwise look quite good. But also things that might mean that you can take on a trickier site that might put other people off which would give you an edge if you're bidding. So the other things we'd look at might include planning restrictions in your particular area.

Ben: Well let's go through some of those. You've asked me some questions, so what was the first one that you said?

Kirsty: So the first question I'd always ask is what you're looking for from your new home and to describe a little bit about your ideas and, dare I say it, some of your dreams for that for you and your family.

Ben: You're obviously putting me on the spot here! Would this be something I would be on the spot or I'd be expected to go away and come back to you with some answers?

Kirsty: I think most people that I work with have been thinking about building a house for a long time, so they've already got quite a strong feel for the type of house that they like. Maybe not solutions and design, but an idea of atmosphere, how they would like to use their house, what kind of relationship with the landscape. Things like you talk about you'd like to have a garden. If they've got children for example then looking at how they would use the house as they're small, as they grow, and then also as they leave home and home is then an empty nest as it were. Or it might be designing a house for people as they're downsizing and looking to reduce energy bills and increase comfort and perhaps it's a retirement home for them.

Ben: Okay, I've got a few details that we can fill in. First of all clearly this podcast I've been working out that I do want to live in a Passivhaus. That's a big right at the top target. Also I have a young family at the moment, I've got a one year old, perhaps we'll have another child in the next couple of years. Hopefully, fingers crossed. So this would be a family home that I'd hope to stay in for ten years or so.

In terms of atmosphere, I think we'd like it to be fairly open plan but to have some rooms that we could retreat to. A lot of my work takes place at home or else I'm out travelling so it'll just be with a computer that I can plug in if I'm staying at a hotel or so forth. So it's important that my wife and I both have a place to work in the home, that's perhaps at the far reaches of the house if that's at all possible.

I would like a lot of natural light although I don't know whether these sorts of things are, does everyone say that or is this all different? I'd like the house to centre around the kitchen, because that's very much a place I enjoy being and the houses I like all seem to do well, have a conversation and so forth, in the kitchen. How's that? Any good? [Ben laughs.]

Kirsty: That sounds great. And what you said, it's not unusual as a brief and I think what becomes very interesting working on a bespoke project is developing that conversation and then really understanding how you and your family work now in terms of your work space and how you envisage family space. So you talked about the kitchen being the heart of the home and that's great, and

again that's not unusual. But as we start to explore some of those things as part of a briefing process, that would really start to get into the detail of what makes you guys tick.

Ben: Well come on then. Let's do it! Let's go a little bit further along. What more would you like to ask me then?

Kirsty: I guess this is where usually I would start to sketch things out with you!

Ben: Oh damn! [Ben laughs.]

Kirsty: And chat about things and really I enjoy that part of the process because that's where we can all get excited about things and it becomes dialogue rather than me asking questions and you giving me answers if you see what I mean?

Ben: Should I have come to you with, say a scrap book of things that I like the look of, or is that just a waste of space?

There's another thing that I suppose I should throw in here, that my wife is very keen on straw buildings and from the Passivhaus point of view I'm less keen. I know there are ways of doing it. I've been to a few straw bale houses and absolutely love them, particularly the atmosphere inside. The acoustic is very very special in those buildings but from a performance point of view. So is that something I should throw in or are you then saying no, you're trying to go down that particular route?

Kirsty: No I think it's great to have a scrapbook because an image really does paint a thousand words here and it allows us to start to have a discussion about some of the less tangible elements of designing a home and in your case, a work space.

So you're talking there about acoustics and atmosphere and for me at this stage then if we can get into some of those less tangible elements to talk about what makes something feel really like a home for you, rather than talk about solutions of this room wants to be 20m² or things like that, which can be helpful and form part of the overall discussion. So a scrapbook is great and I often ask people to bring that along to a meeting. It's not essential but it certainly helps.

And things like straw buildings are interesting. I haven't designed one, though I've been quite interested in looking at them, so that

would be an exploration first of all if you wanted to go down that route.

But one thing about acoustics that's interesting that you mention is that the feedback I've had from people in Passivhaus, or close to Passivhaus, homes is how quiet it is inside them. And they've really enjoyed that.

Ben: It is special, the whole environment which I think sells itself. We've heard that enough in the podcasts.

Okay, so I'm forming a little bit of a brief here, I've given you a few ideas, what's next?

Kirsty: Well, part of that briefing process, it takes a while. It takes a while to get to know a client. You've already given me enough that I would be able to go away and start coming up with some ideas if you wanted me to, and then that those ideas would also then start to form, or develop, that brief. So it's an ongoing conversation that happens throughout the process.

And I would also ask you perhaps a little bit about your ethos towards eco materials as well as Passivhaus and energy and comfort, which we're taking as a given here! So you've mentioned straw building but it sounds like you're not quite so sure about that.

Ben: Well I love it. I'm just not so sure of the longevity of the straw bale buildings. I don't know, I am very with it. I suppose this is another question that I have for you. What if my wife and I have quite different ideas of what we want? It's bizarre that when I started all this three years ago we probably had very similar ideas. We liked older buildings, and as I've learnt more and got more interested I perhaps could do anything now. I feel that I would quite happily go in any direction just because I think it would be fun and nice to explore, yet I imagine we're going to end up with something. The key thing for me is the Passivhaus bit and also the layout, and then the rest of it I don't really mind so much about. So if it does end up going down the straw route then I'm very happy with that.

Kirsty: Well this is where it's great for me as the architect to have a conversation with both of you there so that I can understand what you're both looking for, and that might be different. Hopefully it's not too different but actually what you said doesn't make me think that they're not complementary because you're interested more in perhaps now the performance and the feel of the build and perhaps she's got more of an idea about aesthetic, is that fair to say?

Ben: Yes.

Kirsty: Okay, so perfectly complementary and what I find really interesting about a lot of housing work that I do is often we're starting with quite a vernacular influence. For example, the Passivhaus that I've designed just in Southern Perthshire, that started off with the client bringing the idea of a traditional bothy, so completely vernacular building in the landscape, little stone building, very very simple. And that's informed the design of what is quite a modern build but not shouting out 'I'm modern, look at me', which some people love, some people don't like at all. So it's horses for courses really. Being a Passivhaus it informs how it looks but there's still a lot of options. So this is where a scrapbook is helpful to me and sitting and chatting to both of you to understand if you like the dynamic as well, and how you both negotiate that.

Ben: Let's have a think about land for a second, because you mentioned that you would go and do a few sketches. Was that only after you get land, or before land, and if so what impact does having that plot of land actually have to what's going on?

Kirsty: Ideally there would be a plot of land before we start the sketching, but that's not always the case.

Ben: Hmm.

Kirsty: And when we're doing sketches before there's land, I wouldn't tend to go into an awful lot of detail. It's more conceptual sketches looking at relationships of spaces in a home and maybe the atmosphere or feeling, because of course a very important part of designing a new home is how you approach it and its response to the landscape, so there's only so far that we can go with that without land.

But often people that come and speak to me when they're looking at a plot or maybe a few plots, and so we can look at how that might sit in the landscape there and that might even be before they've put an offer in. It might be once an offer's been accepted and is still in negotiation, or it may even be after they've bought the plot. But it's not unusual to be at very early stages before an offer's gone in.

Ben: Is it a case then of me saying perhaps, I'd like my kitchen to be next to the living room? Is that how I'd like to use the space or what

details do I need to give you about how I'm going to live in this house?

Kirsty: Well it's really looking at, you talked about having your work space, not detached from the home physically necessarily but not in the heart of the space, things like that.

Ben: I've thought of another one, because at the moment we're in this terraced house where the stairs are the squeakiest stairs ever. So one thing that we'd really like to [Ben laughs] get away from is having noisy areas right outside my son's bedroom, or the children's bedrooms as it will be in the future. Would that be useful?

Kirsty: Yes, things like that are useful and it's always interesting to understand what home you're in at the moment and therefore how that's informing your reactions to your new house.

Ben: What about little details, for example my wife said yesterday in our new house we really need a heated towel rail. And I thought to myself, well in a Passivhaus would you actually need that. Is that detail just totally irrelevant to the new house because it will be at the end, or should I start thinking about what sort of bathroom I want and go through catalogues?

Kirsty: You don't need to be specifying what tiles or towel rail you have at this stage but it's always handy to get those kind of questions up right now and chat about actually are you going to have damp towels all the time because you're not going to put your towel rail on, no that's not the case you can put your towel rail on and have nice dry towels and have a cosy bathroom. And those are the kind of things that people do find a little bit, not worrying, but nice to understand what it's going to feel like on a day to day basis to live in their new home.

Ben: Just moving it along, our feasibility study, I know that you were keen to get into budget as well before we design a 1000m² home or something crazy . . . a castle!

Kirsty: Yes, so it's always useful to talk about that right at the start. I don't know whether all architects do that or not, I hope so, and I'm not a cost expert but we can look at other projects we've done and get an idea roughly of what might be feasible. Because if you have only got £100,000 to spend on a house but you want to build a 350m² home then it's better to know that at the start so that we're not all wasting our time and emotional effort in the project. But it's more

about trying to bring those two together, see what's feasible and what you can and can't do.

What we often do as part of the sort of feasibility options appraisal, particularly when there is a site already and we can do some initial sketches, is then work with a quantity surveyor to give costs, even at that very early stage. And there might be two or three options and based on the budget that you provide for us, and they can go through either at pounds per square metre cost or in more detail depending on what you'd like, and then sit down together to talk through that. And that helps people to prioritise what they'd like to do, assess whether they want to do it because sometimes people choose not to at this stage and that's a valid thing as well.

Ben: Something else I'd like to throw in here, say for example my budget I'm hoping will be around about £500,000 to £600,000, somewhere everything all in. The trouble is with land where we are, it's very expensive. The last bid we put in was £240,000. The plot went for £400,000 which is crazy. So what happens most of the time I'm assuming is the plot is a lot less than the actual build cost or is that wrong or does it change all of the time?

Kirsty: I guess it depends where you are. It sounds like plots are a lot more expensive where you are than around here. Again it'll vary depending where you are, even locally. But yeah, typically the plot is less than the build cost here if we're talking sort of £100,000 - £150,000 for a plot.

Ben: Okay, so that sorts out some budgetary, I imagine there's not much more we can talk through or can you ask me any other questions you know roughly the figure I'm going for. Is there anything else you'd like for your progressing the plans?

Kirsty: For feasibility study what we'd do is look at your budget, what you have for construction cost, what you might need to set aside for fees and expenses and for the plot and also suggest you get an idea of costs to bring the services onto the site because that can be very expensive.

We can then break that down and look at what you might then have for your house itself for the build, and apply a pounds per square metre rate for that which we'd look at what was appropriate locally. But let's for the sake of argument say it was £2,000 per m², and you've got £200,000 for your build, then if we can fit everything you need into your 100m² house then that's great but if you actually

need double that in terms of area then we need to start to look at how that might be achieved or not.

Ben: I'd like to cover an example in a few moments of one of your clients. And this is a project I've actually wanted to talk to you about for some time and I know that quite a nice client input as well so it's going to work well, is there anything else I haven't stopped you short on your feasibility study or are those the main things?

Kirsty: I think the main things are design ideas, what you'd like and breaking down the budget to see if those are achievable. The other elements are planning, which are quite site specific so perhaps not something to discuss in detail right now, any other specifics. Conservation area is something we'd look at. Access and any special requirements that you have.

Ben: What's the access one?

Kirsty: So access, if you might have a great plot but it's very difficult to get cars onto the site.

Ben: So that's only going to happen when we have land in other words, or are we saying that actually we want three cars on this so that's going to influence what plot we buy?

Kirsty: It certainly would yeah. Because if you don't have physical space for it and some planning requirements or planning policies, you have to have a certain percentage of your ground as garden, so if you know that 60% of your ground has to be garden you've got a house of a certain size you need parking and access then that starts to dictate the size of plot that you need.

Ben: Let's talk about Duncan and your award-winning project, the Hayshed. We'll incorporate the video from the Passivhaus Trust Awards 2014. Is that right or was it the year before?

Kirsty: It's right, yes last year.

Ben: Congratulations again.

Kirsty: Thank you very much.

Ben: Can you explain how this developed? We're particularly interested in those very early days.

Kirsty: So the client came to us quite some time ago. It was when I was working for another practice. And he was, or is, a very knowledgeable client. He already had actually outline planning on the site but he was very interested in low energy and Passivhaus buildings. He interviewed a number of architects, I don't know who else, but he decided to work with us.

And he had really strong vision and artistic as well, so strong ideas about what he would like to see on the site. And we used the vernacular hay shed so back to the idea of using traditional buildings and landscape to influence modern design. He came to us with that idea and we used that to develop the overall project. Now interestingly that allowed us to work quite closely with the planners in fact because their planning policies at the time were for very traditional pseudo-vernacular buildings which this isn't. Although the story for the design of this is that it's on the edge of a farm building cluster, and rather than create a pseudo second farmhouse that looked like an old building, we decided to expand the cluster in a more vernacular way which was to add a building which looked much more like the traditional hay sheds.

Ben: And from a Passivhaus point of view, you didn't go, uh oh, this is going to be difficult?

Kirsty: No! [Both laugh.] We thought this could be challenging, because it was one of the first Passivhaus buildings in Scotland.

Ben: Yes, yes okay so that doesn't help. And then you've got to somehow make this dream float?

Kirsty: Yes. And to be honest I found it more exciting than anything else and I think that was something that took us all the way through the project was Duncan's enthusiasm, my enthusiasm and also that of the contractor once they came on board, and everyone else who was involved in the project.

Ben: And it was interesting for this one that Duncan in many ways had more knowledge than some of the local builders really didn't he?

Kirsty: He did yes. He went and researched Passivhaus significantly and he and I developed that knowledge together as well in terms of the design process and so he was able to work with the local contractors as part of that. And he's a building contractor himself so also extremely knowledgeable in that area which was great. So it was very much a collaborative project.

Ben: I didn't know that, because he's also a . . . Is he a farmer? I'm now starting to wonder whether he is!

Kirsty: He is a farmer and like most farmers he's diversified into different areas.

Ben: Okay, alright. Let's just quickly talk a bit about the construction of this. I know that that's not strictly on topic for today, but since we'll be showing a few pictures in the show notes. How did you address all of this and what were the key challenges of the build?

Kirsty: I think one of the great things that we have in Scotland is the timber frame construction tradition, so that allowed us to use an I-beam structure with Glulam timber for the roof to get the curve. And that meant that we had great joiners on site who actually were able, because we had space, they were able to build the frame on site as a balloon frame and then crane it into position. So that had some challenges in itself, particularly on such an exposed site as this. But it allowed them to have complete control over the detailing and quality on site. So it means that the erection of the house once it's been created in panels is actually very quick. So that was then stuffed with Superglass insulation which is made in Sterling which is relatively local as well. And it was all clad in zinc. Everything, including the rainwater goods match with the VM zinc system.

Ben: What's the orientation of this one? Am I right in saying it almost looks a bit out west?

Kirsty: It does yes. So the views are stunning. The views are out over Arran and Ailsa Craig and the sea over the west coast, over the rolling farmland. So in fact last time I was there we were looking out from the dining room and there was a fox trotting across the field outside. So there's no way we weren't going to make use of those views. So we did twist the building round to orientate it in that direction.

Ben: And in terms of overheating, how did you address that to make sure it wasn't going to get really hot? I know the sun sometimes doesn't shine for a few days in a row. Isn't it 1000 different weathers that you get in a single day?

Kirsty: Something along those lines, yes! So there's always a breeze there because it's so exposed, so that helps with cooling. And we modelled it in PHPP right from the start and that of course influenced us in terms of window sizes. We've got a small amount of shading on the large glazed panel and they simply open the door

slightly to get some ventilation. Duncan said that they're very pleased with it in terms of its stability for temperature.

Ben: Excellent. And what did you learn overall from the whole project? You mentioned that this was when you were working with another practice, so it was off the back of this really that you launched your own practice.

Kirsty: Partly yes. Because we gained planning for the house when I was working elsewhere and then Duncan took a couple of years out from the project to sell his old house and various other things, and in the meantime I'd set up on my own and he came back to me and we worked from building warrant onwards together.

I think one of the main things that we learned was how positive the whole team could be when we worked together and when everyone's really excited about the outcome of something that's really inspiring to them all. Everyone was great. The guys that did the services with the MVHR and the heat pump, we all sat down together in a room and looked at how we could integrate the two to make them as efficient as possible for example.

And people were just, because this was something relatively new, the people that we chose to work with were not the type who were going to suck their teeth and say it can't be done of course. So it was very much a can-do approach. There were lots of challenges on the project because it was something new, but equally with the people that we had as part of the team, none of them were insurmountable and it was more about how do we go to the next stage and how do we do that the best way possible.

Ben: Well I think that's a good point to wrap things up. Is there a final thought that you'd like to reflect on? Perhaps not to do with your Hayshed creation, award winning, but just on our feasibility study that we based most of the episode around?

Kirsty: In terms of the feasibility study, I think it's great to do that whether you have a plot or not. I think it sets out the basis of the entire project so that people can really enjoy the design stage, knowing that some of the absolutely critical elements such as budget, planning, some of the if you like drier sides of it but essential to the success of a project, are in place and are addressed right from the start so it creates a great foundation for everything from there on in.

Ben: Yeah, you've made me realise that I'm going in and attempting to buy land without actually having a good budget plan. So you're

right, I need to do some of that legwork. That'll be a future podcast I'm sure coming up! Kirsty, thank you very much for your time.

Kirsty: A pleasure. Great to speak to you. Thanks Ben.