



Carpenter Oak & Woodland
Traditional & Contemporary Timber Frames

Designing your oak framed house





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There are typically three ways to have your oak framed house designed:

- 1) Appointing Carpenter Oak & Woodland Architectural Services (CAS)
- 2) Appointing a Carpenter Oak & Woodland architectural partner (CAP)
- 3) Appointing another architectural practice

At a glance

The table below summarises what you get with each of the design options

	Architectural Practice	CAP	CAS
RIBA stages B to J	✓	✓	✓
Specialist oak frame architect	?	✓	✓
Oak framer on your design team		*	✓
Oak frame drawings and engineering calculations for Building Regulations submission		*	✓
Cost consultant to evaluate the design against budget			✓
Dedicated team of specialists working together to produce a fully integrated oak frame design			✓

* If you take the advice of the partner practice and appoint Carpenter Oak & Woodland as the oak framing specialist.

For more information about each of these options see: Carpenter Oak & Woodland Architectural Services – page 3, Carpenter Oak & Woodland architectural partner – page 6, Another Architectural Practice – page 8



Typical fees

Whichever design route you decide upon you are likely to find that the total costs are similar for like for like services.

Whether you appoint Carpenter Oak & Woodland to design your house, one of our partner practices or your own architect you should ensure that the following criteria are met if you want peace of mind and confidence in the outcome:

- The architectural designer should have a good level of knowledge and expertise in designing oak framed buildings
- Carpenter Oak & Woodland should be engaged at a very early stage to contribute to the design process

Whether these services are wrapped up through a single point of contact (as with our own design service) or as separate appointments through a Carpenter Oak & Woodland Partner or an independent architect of your choice, should have little bearing on the total cost of those services.

Beware of an architect whose price doesn't include all the RIBA work stages (see Appendix B on page 9) you want for your project and excludes the involvement of a timber framing specialist.

Designing a house intended for oak frame without fully integrating the oak frame from the outset is a costly mistake. Sadly, all too often we see planning permission granted where only through substantial remodelling can an oak frame be 'retro fitted' into the design. This inevitably leads to more costs, delays to the build programme and often a less efficient and elegant solution.



Carpenter Oak & Woodland Architectural Services

As well as being able to work with our clients architects we offer a full architectural design, planning and procurement service to our customers.

For many architects designing in oak frame is an unfamiliar concept because the understanding of it had been lost for so many years. To achieve the very best in oak frame building design we have over seventy specialist architects across the UK. Our architects are experienced in this unique form of building construction and importantly they also have knowledge of the architectural vernacular, planning authorities and building control authorities in your area.

In order to bring your new oak framed home, extension or garden room to fruition we start by helping you to set out and articulate your brief. This is your aspiration not something to be built on the whim of a designer. Once the brief is clear we'll produce some concept designs to help you explore the options further and select one that most closely meets your needs. It may not be the complete solution yet. Then we'll work with you to develop the design to the point that it can be submitted for planning permission. Once planning permission is granted we can start work on the production drawings. These will be needed for submission to the building control officer, to support the procurement process and finally for your builder to build from.

The key stages in more detail

The brief

This is an enormously important part of the design process and a surprising number of architects and designers fail to execute it thoroughly. A poor brief means that the whole design starts off on the wrong foot. This can lead to hours and hours of design time spent going off in the wrong direction. We've known of people to get planning permission for something they later decide they don't want or can't afford to build.

Your role in the briefing is to tell us what you want or more likely to help us to help you clarify what you want. From the number and size of rooms to how they will be used. From how you live now to how you want to live in your new house. We'll be asking what's important to you and what isn't. We'll need to know about your hobbies, your pets, your whims and your fancies. We'll explore the size of house you want and need. We'll ask you to imagine your new house is complete and tell us what it looks like and feels like, inside and out. We'll need to know about your budget and when you expect to start to build.



You will know the answers to many of the questions we have. You'll best guess others and you'll look to us for guidance when you need it. And we're here to help, to guide and to advise. We will bring our expertise to the briefing process but we won't, ever, bludgeon you into something you don't want. This is your project, your house, your aspirations.

Concepts

With the brief clearly documented we'll sketch some concepts that we believe deliver against it. There may just be a couple or there may be three or four. These will be sketches of plans and elevations of the building, room layouts and probably some ideas of materials. There may be more than one location on the site that needs to be explored. It may be that the brief can be delivered in different ways through different designs. We'll then discuss these with you and together we'll settle on the design that most warrants further development.

Planning

Now we'll develop the preferred concept. Through collaboration with you the design will be finessed. For the planning process we will need to agree how the building looks from the outside (planning officers aren't interested in how the house will be built, that's the remit of the building control officer who'll get involved later on). We'll need to be specific about the

shape and height of the house, the materials that will be used, where it is positioned on the site and so on.

You'll be fully involved in the design process because we're designing your house not ours. We'll offer lots of guidance and advise, whether it's about renewable energy, windows or roof finishes. Our architects and designers have years of experience to bring to the party but not to the detriment of you getting what you want. They'll listen and question. They'll help you explore and offer guidance when it's needed. But they are there to help you bring your new home to fruition.

Costing

Towards the end of the first phase of design but before submitting the design for planning we will get an independent quantity surveyor (QS) to evaluate the cost of building your new home. Whilst we will have agreed an anticipated budget with you at the outset and kept a keen eye on how the design fits within your budget it is good practice to get an independent qualified QS to assess the scheme before it goes before the planners. There is no point getting planning permission for something that's over your budget.

Building regulations

Once planning permission is given we can get the production drawings underway. At the end of this part of the process you'll have a full set of working drawings from which your house can be built. There will be lots more decisions along the way. From what insulation you might want to the type of internal doors to the positions for all your power sockets and light switches. The production drawings also fulfil another very important role. They allow a full specification of the house to be written up. This in turn will allow us to help you through the process of procuring your new house. There are a number of different procurement routes and we'll advise you on the most appropriate for you and your project.

Procurement

There are two principle ways in which you can buy your new house, competitive tendering or a negotiated contract. We'll talk you through each of these and discuss the most appropriate for you and your project. When you've decided which route you prefer we'll help you through the process to the point that you are able to engage your builder.

What next?

Having decided on your builder you'll need to decide on how best to manage the building process. You may want to employ the services of our architect or appoint a project manager. You may be happy with your builder managing the project without third party intervention. You may even want to manage it yourself. We can discuss all these options with you and help you decide on the best route for you.

Now the ball can really start to roll and you can begin to see your new home come to fruition not just on paper but in reality.





Appointing a Carpenter Oak & Woodland Architectural Partner

Over the past 23 years Carpenter Oak & Woodland have worked with many architects and architectural design practices. From this vast array of professional contacts we have developed a network of partners who we feel have the necessary experience and expertise to design oak framed houses. We can help you select your architect from this pool of specialist practices.

Why is the expertise so important?

With most forms of conventional building the method of construction is determined once the design of the house is completed. The primary structure in most houses isn't visible, the steelwork is encased, block work walls are plastered and roof structures are locked away in the attic.

However when building with oak frame the primary structure is determined on day one, and whilst all structural forms have their limitations they can usually be overcome by using alternative materials and hiding the structure within the fabric of the building.

Oak framing is a very 'honest' structural form. The structure is very visible, indeed that's exactly what our clients fall in love with. You can't cheat the structural system and moreover any limitations of the structural form must be embraced in the design from the outset. Different styles of oak frame have different limitations of span, roof pitch and bay width that will influence the design from its inception.

To achieve a well designed oak framed house that is efficient to build the designer must have a good understanding of how oak works structurally, how it performs over time, how it influences the design and how the frame will relate to and interface with the other building components such as floors, walls, windows and doors.

Why don't more architects have this expertise?

Because they weren't taught it. Although post and beam framing has been used in the UK for hundreds of years it was all but lost once steel and concrete became a cheap alternative. Over many decades the use of structural timber framing fell from the architectural curriculum.

Today a relatively small number of architects have chosen to develop their understanding of oak frame construction. By working alongside Carpenter Oak & Woodland, attending lectures and studying the topic they have become leaders in their field. It is these architects that we recommend as our preferred partners for our client's projects.

Who else will you need to appoint?

It is highly likely that the architect will recommend that you appoint various specialists as the project proceeds. This could include a quantity surveyor to establish the cost of building your house.

Our partners will also recommend the appointment of Carpenter Oak & Woodland as a specialist on the design team. In this way they can draw on our 23 years in the industry to augment their own expertise and ensure that they develop a design for your house that is aesthetically pleasing and structurally and financially efficient.

This also means that at the end of RIBA stage F – Production information, you will have a comprehensive package that includes production drawings and engineering calculations for your frame that you will require for the application of statutory approvals from your local building control officer.





Appointing your own architect

Some of our clients appoint an architect prior to our involvement and we are always keen to work with new architectural practices. However it is important to understand where specific areas of responsibility lie so that you have the greatest chance of achieving the end result you are looking for. Buildings are complicated and grey areas between contractors should be avoided.

Where we are engaged to undertake the design, fabrication and erection of the timber *frame only* we will collaborate with the client and the project architect, work from their drawings and produce frame fabrication drawings and engineering calculations. These will be needed by the architect for incorporation into the building regulations submission.

Under the RIBA key work stage E – Technical Design, your architect will be responsible for *'Preparation of technical design(s) and specifications, sufficient to coordinate components and elements of the project and information for statutory standards and construction safety.'*

This means they are responsible for working out how different building components will come together. For

example if a roof light is to be set into a roof the architect will contact the roof light manufacturer and get the necessary technical specifications so that he can produce working drawings of the interface between these two components. The same principle applies to the oak frame. The architect will ask us for detailed information about the frame so that he can determine exactly how he wants the other building components such as walls and floors to interface with it.

In addition to knowing who should be doing what it is worth remembering that relatively few architects have experience with oak frame. This may not be an issue if they are open to our input from the earliest stages of design.

Sadly we regularly receive designs where it is difficult to 'retro fit' an oak frame just because the designer had insufficient knowledge. To make matters worse planning permission may have already been granted and the changes necessary for accommodating an oak frame may mean a complete re-submission to the local planning authority with all the associated costs and delays.

Appendix A

The Royal Institute of British Architects work stages

RIBA Work Stages		Description of key tasks	OGC Gateways
Preparation	A Appraisal	<p>Identification of client's needs and objectives, business case and possible constraints on development.</p> <p>Preparation of feasibility studies and assessment of options to enable the client to decide whether to proceed.</p>	1 Business justification
	B Design Brief	<p>Development of initial statement of requirements into the Design Brief by or on behalf of the client confirming key requirements and constraints. Identification of procurement method, procedures, organisational structure and range of consultants and others to be engaged for the project.</p>	2 Procurement strategy
Design	C Concept	<p>Implementation of Design Brief and preparation of additional data.</p> <p>Preparation of Concept Design including outline proposals for structural and building services systems, outline specifications and preliminary cost plan.</p> <p>Review of procurement route.</p>	3A Design Brief and Concept Approval
	D Design Development	<p>Development of concept design to include structural and building services systems, updated outline specifications and cost plan.</p> <p>Completion of Project Brief.</p> <p><i>Application for detailed planning permission.</i></p>	
	E Technical Design	<p>Preparation of technical design(s) and specifications, sufficient to co-ordinate components and elements of the project and <i>information for statutory standards and construction safety.</i></p>	3B Detailed Design Approval
Pre-Construction	F1 Production Information	<p>F1 Preparation of production information in sufficient detail to enable a tender or tenders to be obtained.</p> <p><i>Application for statutory approvals.</i></p>	3C Investment decision
	F2 Tender Documentation	<p>F2 Preparation of further information for construction required under the building contract.</p> <p><i>Preparation and/or collation of tender documentation in sufficient detail to enable a tender or tenders to be obtained for the project.</i></p>	
	H Tender Action	<p><i>Identification and evaluation of potential contractors and/or specialists for the project.</i></p> <p><i>Obtaining and appraising tenders; submission of recommendations to the client.</i></p>	
Construction	J Mobilisation	<p>Letting the building contract, appointing the contractor.</p> <p>Issuing of information to the contractor.</p> <p>Arranging site hand over to the contractor.</p>	4 Readiness for Service
	K Construction to Practical Completion	<p>Administration of the building contract to Practical Completion.</p> <p>Provision to the contractor of further information as and when reasonably required.</p> <p>Review of information provided by contractors and specialists.</p>	
Use	L Post Practical Completion	<p>L1 Administration of the building contract after Practical Completion and making final inspections.</p> <p>L2 Assisting building user during initial occupation period.</p> <p>L3 Review of project performance in use.</p>	5 Benefits evaluation

The activities in *italics* may be moved to suit project requirements, i.e.

- D *Application for detailed planning approval;*
- E *Statutory standards and construction safety;*
- F1 *Application for statutory approvals;* and
- F2 *Further information for construction.*
- G+H *Invitation and appraisal of tenders*