

DESIGN PROCESS

A GUIDE TO WORKING WITH PENNSERNETH STUDIO

Below is an outline of the steps we'll be taking together as we design your home. This process is meant to be enjoyable, fun, engaging, and collaborative. It will involve sketches, drawings, computer models, physical models lots of ideas – both good + bad - materials, thorough analysis and good humour. I think the best outcomes are the result of following each of the steps below to completion.

Good design is the synthesis of many disparate ideas into a thoughtful whole, and while the steps listed below represent a linear path, the way we arrive at the final design isn't always linear. It's an iterative process, which leads to a product; it's not a known product from the beginning. The product is the result of following the design process to its logical endpoint. This, I believe, is what makes custom design so exciting and memorable – we create it together tailoring your specific situation and needs. At the end of the process, you'll have a thoughtfully designed home and the shared experience of designing it.

Architectural design practices, for the most part, all use a similar series of steps to arrive at a finished home. There are 4 general design stages that Pennserneth Studio can provide up to tend:

- | | |
|---------|---|
| Stage 0 | Strategic Definition – site analysis, programming, existing conditions, budgeting, planning compliance. |
| Stage 1 | Preparation & Brief - sustainability outcomes, project brief, information requirements |
| Stage 2 | Concept Design – basic design concept generation |
| Stage 3 | Developed Design – refinement of the selected design concept from stage 2. |
| Stage 4 | Technical Design - detailed drawings, schedules and specs that will be submitted to building control. |

The stages are sequential and they build on the work completed and agreed to in each preceding stage. We start with the general and refine the design to the very specific. There's lot of decisions along the way and this gradation organises those decisions into manageable portions.

Here's what to expect with each phase:

STAGE 0: STRATEGIC DEFINITION

Is the stage where we discuss the scope of the project and your requirements, understanding the pros and cons, potential risks and project budgeting for a range of options. I will analyse and advise to your requirements on the basic site information for your project e.g. room schedule (m2) in relation to cost and understanding of any restraints due to planning policy. Through our discussions it will result in a strategic brief (list of objectives) that will be built upon in the next stage and then finalised at stage 2.

INFORMATION REQUIRED:

- Project objectives
- Strategic brief
- Initial feasibility studies
- Letter of Authorisation

STAGE 1: PREPARATION AND BRIEFING

This is essentially an information gathering and processing phase – what I do before I start design. We collect all of the information about the project to use in concept design. This includes information about the site, any existing structure(s), codes, deed restrictions, site utilities, access, budget, and schedule.

SITE

The property, or site, is a strong generator of ideas and building forms for me, so I begin all new projects with an analysis of your site. I look at the local conditions - climate, wind patterns, solar angles, topography, and other significant features - particular to your property. I overlay any local planning restrictions (e.g. Local Plans, AONB, Conservation Area) on this plan and create a site diagram. This diagram usually begins to suggest candidate building sites and opportunities, which together, we'll begin exploring in the next step.

PROGRAMMING + BUDGET ANALYSIS

The program is an architectural professionals way of saying, “list of rooms”. What will I be programming into your home? Chances are this has been percolating in your head for some time but we need to get it on paper and make it real.

I’ll ask you to make an exhaustive list of the spaces you’d like in your home to include. Treat it as a wish list of sorts (for now). For the major spaces, it’s also useful to describe the character of those spaces (wood ceilings, cozy, formal, low light, etc.) If you have particular needs regarding sizes or adjacencies of spaces, it would be great to know that up front. Otherwise, I’ll develop and assign appropriately scaled spaces to your list of rooms as a starting point.

I’ll apply meter square estimates to this list of spaces and assign estimated GBP values to the total project area (m2). Together we’ll compare the estimated cost of the home with your budget. If the two don’t align we’ll revisit the size + number of spaces for as long as it takes to reconcile the two. It’s much easier to align your budget with the size of the home before beginning the design process. The concept design will follow, fixing ideas and expectations into an image of a home. Once this happens it’s much more difficult to give things up.

CLIENT QUESTIONNAIRE

I’ll send you a detailed list of questions to help me find out more about you, your needs for the project, and as part of the search for an architectural idea to build the project on. This will get us all thinking about the specifics of design from the outset.

EXISTING CONDITIONS SURVEY (As Necessary)

These drawings are required for all renovation + addition projects and vary with the size and complexity of the existing building.

POLICY & RESTRICTION ANALYSIS

It’s critical to understand the restrictions governing the subject property or structure before beginning concept design. This review will tell us what’s possible and what isn’t. I’ll review the policies, by-laws, and covenants which impact the property, review environmental issues, flood zones, and assess the overall permitting process. I will seek preliminary Planning department, Cornwall Council Building control and engineering review as required.

SCHEDULE

It's important to develop a basic schedule to make sure we're meeting everyone's expectations. The project schedule will be impacted by the following:

- Owner's Schedule
- Designer's Schedule
- Consultants' Schedules
- Permitting Schedule
- Contractor's Schedule + Availability

The schedule will change along the way we'll use it to identify any constraints early on.

INFORMATION REQUIRED:

- Site Survey (digital) - showing property boundaries, roads, test pit sites, utilities, topography, known significant site features, and any existing structures.
- Existing Structure Floor plans (digital) as applicable. If you don't have these, I will conduct an existing conditions survey for you.
- List of any known restrictions (wetlands, permitting constraints, easements, etc.)
- Copy of your deed/ land registry
- Client Questionnaire – this is a document I'll provide for you to fill out. It's a detailed list of questions designed to tell me more about you, your project and to define the project goals in a very granular way.

This phase is complete when you've agreed to the program and budget we've developed together. Then we can proceed to the next stage.

STAGE 2: CONCEPT DESIGN

This is where the rough shape of the building and the ideas are formed. I'll generate a couple of different design options for you to consider - two at a minimum (sometimes more) - using all of the information gathered in the previous step. I begin by drafting a narrative for the project, which we'll reference throughout the project. This seed idea is used to help us make decisions as the project becomes more detailed and better defined. It's a rulebook of sorts.

I generally present the concept ideas in loose sketch form on tracing paper as site and plan diagrams or models, physical or digital. These are not final ideas or fixed plans, they're meant to be conceptually evocative and to incite new ideas and feedback from you.

We'll meet and discuss the designs with the goal of narrowing the field to one preferred design concept; something we can move forward with. Often this design will borrow features from other schemes and become a hybridised solution. The phase concludes with your selection of a scheme to further develop.

At the end of this phase we'll usually have the following:

- Concept Site Plan
- Concept Floor Plans
- Sketch Elevations / 3D Model (digital/physical)
- Preliminary Cost Estimate

STAGE 3: DEVELOPED DESIGN

Taking the concept plan developed in the previous stage, I begin to create the drawings digitally. I locate it precisely on your site and think about how it will relate to the existing contour and consider how that will shape the building. I make the building real by drawing the floor plan - the walls, windows, + doors, and stairs. I define the exact sizes and relationships of the rooms, the overall volume of the building and generate the initial set of exterior elevations. I also begin thinking about materials, inside and out. Eventually we'll know what every finish in every room is, but here we'll conceptualise the framework for the material palette. The buildings systems will be developed in this phase as well – structural, mechanical, heating, lighting, and specialty controls.

We'll usually meet to discuss the evolution of the design several times, each time refining the level of detail and decision.

CONSULTANTS

This phase initiates our coordination with the various consultants that will bring their expertise to bear on the project. Because the work I do is very specific and it demands the highest quality we almost always use structural engineers. They ensure that our homes perform to our joint high level of expectation. Much of our work is directly exposed to high loading from lateral wind force and involving a structural engineer is a must.

Other consultants such as landscape, lighting or mechanical professionals can be brought in as necessary at this time. My design work can extend to all parts of the interior from material selection, fixture selection, hardware, to all of the finishes and appliances. I find this produces the most cohesive design overall.

PLANNING

At stage completion you'll have a set of drawings for what looks like a house and ready to be submitted to the local authority

- Site Plan
- Block Plan
- Floor Plans
- Exterior Elevations
- Sections
- Interior Elevations
- Outline Specification
- Structural Concept
- Lighting Concept
- Mechanical Systems Concept
- Design Access & Heritage Statement

All required documentation and forms will then be submitted through the planning portal to begin the planning process with the local authority, with a fee calculated depending on the application relevant to your project (fee forwarded to you through the planning portal), the planning department has a target of 8 weeks for a decision to be made after the application has been acknowledged.

BUILDING REGULATIONS

There are two paths that can be taken after approval is granted that will be discussed before the decision:

1. Notice to building control, where notice will be given to building control and the builder will build to the regulations and be inspected at stages of the build and signed off by an approved building inspector.
2. Building regulations application that will incur a fee to you to building control, where i will produce drawings and details required for the submission covered in the next stage description, technical design.

STAGE 4: TECHNICAL DESIGN

This stage fixes all of the information about the house into a detailed set of drawings and specification that will be used by the Contractor for pricing and construction. Think of it as an instruction manual. Before beginning we'll discuss whether you'd like to pursue a building control application for details and specification to be approved and then can be built to the drawings produced.

For a typical project, I generate the following drawings:

- Site Plan
- Floor Plan(s)
- Exterior Elevations
- Building Sections/Wall Sections
- Door + Window Details
- Interior Elevations
- Details (interior/exterior)
- Schedules (Door/Window)

On request for tender purposes:

- Electrical / Lighting plans
- Building Specification
- Schedules (Hardware/Plumbing/Lighting/Finish/Appliance, etc.)
- Structural Plans
- Foundation Plan

The local permitting process in Cornwall is usually straightforward and simple, complex sites may require an earlier start on the permitting process; however, this will be determined in the Preparation & brief stage.

The technical design stage will require less input from you as most of the decisions will have already been made. If there are outstanding finish selections or cabinetry design decisions we'll meet to confirm those.

FEES

All design fees are charged on an hourly basis. The cost of construction of a project doesn't determine the architectural fees, but it's a useful guideline in projecting how much design time may be needed to consider the project and produce the drawings. A full scope of architectural services, as described below, often falls within the range of 15% to 20% of the actual cost of construction. Note that this is the actual cost of construction, not the initial budget - often these are two very different numbers. Fees will be in the higher end of that range for projects that consider a master plan, focus primarily on the kitchen and/or bathrooms, and/or have a construction budget below £200K.

The nature of the decision-making process, Owner's directives, and the level of design input requested, all affect the overall fees. Therefore, fees can only be estimated at the start of a project based upon the potential size and complexity of the project and intended work.

It's extremely important that your budget for your home aligns with both the area desired and the estimated cost per meter square to build. For custom residential construction in Cornwall I use the range of £1800-2500 m2. This is a big spread, some of which is dependent on the builder, some of which is based on the project complexity and some of which is based on the level of finish required.

I'll work with you early on to fine tune the list of desired spaces and their sizes and develop an initial estimated building cost. This will focus your decision-making process and help to align the budget with the size of the building. By doing this you'll have a more accurate picture of what my design fees will be. I like to involve a Contractor early in the process to provide local construction cost feedback that together we can rely on. I do not warranty, guarantee or certify the construction cost for the project or any part of the project, I only collaborate with Contractors who have an intimate knowledge of the (ever-changing) actual cost of construction.

WHAT'S INCLUDED?

While I love designing things, design is only one part of what I do on a project. There's a lot of communication that happens behind the scenes. I refer to this as project administration and its duties are spread across all of the phases of work. This is also billed hourly and the estimate is included in the basic services fee.

I believe for a project to run smoothly open communication between everyone – Owner, Contractor, architectural designer, Consultants, Other Agencies - is extremely important. I pride myself on being an open communicator and always responsive to your questions. These administrative processes are in place to make sure your project runs efficiently, on budget and on schedule.

Some examples of this project administration are:

- Phone, text, e-mail correspondence
- Owner meetings and presentations
- Meeting agendas + minutes
- Coordination of Consultant's work

CONSULTANTS

My estimated design fees include the architectural services outlined in the phases below. They do not, however, include any outside consultant fees or other soft costs. Depending on the specific requirements of a project I may request to involve an outside consultant on a case-by-case basis.

Some examples of consultants we may involve on your project:

- Structural engineer
- Civil engineer
- Soil scientist
- Surveyor
- Landscape architect
- Energy modeller
- Lighting consultant
- Planning consultant

As the need for these specialised consultants arise, we'll work together to select the right person for the job and define the added costs up front.

HOW TO CONTROL COSTS

I recognise that designing a house can be an expensive endeavour and I'm happy to work with you to manage these costs. A couple of things to prioritise when thinking about how to effectively control design fees:

- 1) Exploring more options, while a really enjoyable exercise for me, can get expensive quickly.
- 2) Be up front with your goals, likes and dislikes. Architectural professionals thrive on critical dialogue so don't be afraid to be direct and candid. Without an honest, open dialogue the process can take longer to arrive at something you're happy with.
- 3) Match the size of your desired house with your budget. This keeps all parties working toward a singular goal. It's much easier to work early on to define a realistic house size that meets your budget than to try and remove money from an oversized house during the pricing phase. I advocate designing smaller, more energy efficient + affordable floor plans as a starting point.

HOW LONG WILL IT TAKE?

DESIGN

The time it takes to complete the design portion of the work can vary from as little as a few months to up to a year (or more). It depends on the complexity of the scope of work, how quick you are to make decisions, how quickly we can come to a design solution that meets your needs and any special permitting or regulatory hurdles we face.

CONSTRUCTION

Again, this depends on project size and complexity as well as the Contractor's schedule and workload. You can expect it to take between 12 and 16 months for the average custom-built project from start to finish.

OTHER QUESTIONS?

If there's something you're still wondering about, you can always reach me at:

Email: connor@pennserneth-studio.com

Mobile: 07800564196