The Process

Our industry has been around for a long time, and with that has come some standards for how we practice. Although technology and the law lead to occasional changes, the general principles stay the same. The most important thing to understand is that getting a project designed and built is a process, it takes time. Decisions are not made all at once, but throughout the course of a project.

Standard Phases

Standard phases bring an order to the design process. Each phase has a purpose and a level of expectations that you as the owner can expect to see. In general the phases are sequential and you as the owner will sign off on the completion of each phase, permitting the project to move forward based on the decisions you made up to that point. The time frame to complete each phase varies depending on the complexity of your project.

Here are the six phases:

Phase 1	Pre-Design
Phase 2	Schematic Design
Phase 3	Design Development
Phase 4	Construction Documents
Phase 5	Construction Procurement
Phase 6	Construction Observation

Billing & Fees

Phases also help to determine fee breakdown and billing. A common misnomer is that the design fee is due upfront or paid in one big lump sum. This is incorrect. Payments of design fees are actually made monthly as the project progresses. These payments are based on the amount of work completed in that particular month.

Fees

Our design fees are set at the beginning of a project as either a fixed fee or an hourly fee with an estimated number of hours to complete. The total fee is then divided into the individual phases by percentage of the total fee (for fixed fees), or as an estimated number of hours per phase (for hourly fees). We like these type of fees because they give our clients an understanding of what the design fee will be from the beginning of a project, helping to avoid surprises down the road. Our design fee varies from project to project depending on the following factors:

Project Complexity	Project Type
Project Location	Project Size
Project Quality	Scope of Services
Owner's Schedule	Owner's Budget

PHASE 1 Pre-Design

Goal: research and determine the owner's criteria for the project.
Fee Breakdown: 5-10% of total fee

Before Design

Simply put, pre-design the stuff that is done before starting design. Pre-design services can vary greatly depending on the complexity of a project and the experience of the owner. Sometimes an owner will come to us with most of the pre-design criteria established, however, more often, the owner needs our experience and researching capabilities to properly determine the projects requirements.
Services

The Pre-design phase may involve the following services:

Programming

Programming consists of establishing and documenting detailed requirements for the project relating to but not limited to; design objectives, development of space requirements, relationships between spaces, flexibility and expandability, special equipment and systems, and site requirements.

Budget Analysis

The budget should have estimated costs for both the hard costs and soft costs involved in your project. Hard costs are construction related costs including material, labor, and the contractor's overhead and profit. Soft costs are non-construction related costs including the designer's fee and expenses, consultants fees and expenses, city fees, bank fees and interest, and insurance.

It is also important during this phase to generally assess if the budget is adequate to complete the project given project type and quality.
Schedule Development
The following are just a few of the factors that contribute to the project schedule:

Owner's schedule	Owner's decision time
Designer's schedule	Consultants' schedules
Project complexity	Permit process
Contractor's availability	Contractor's schedule

Because of all the various factors involved in the schedule, it is important to continually adjust the schedule as the project proceeds.

Code Analysis

It is important to understand the rules of the game before you play. This ideology is ever important when it comes to your project. Cities and often specific regions within cities have different sets of rules governing many aspects of your project. Brighton Architecture's experience in researching and understanding codes is critical to preventing costly code errors.

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Space Schematics

In certain projects we will produce space schematics that may include: diagrammatic studies and descriptive text, conversion of programmed requirements into net area requirements, general space allocations, adjacency, special equipment, and flexibility and expandability.

Existing Facilities Surveys

Many projects are remodels or additions to existing structures. These types of projects require a record of what is built. Since most of our clients do not have drawings of their existing buildings, we recommend they hire an as-built consultant. An as built consultant will measure and create accurate CAD drawings of your building that we can then use as a base to develop the new design. We are happy to refer our clients to as built consultants that we have used in the past.

Site Analysis and Selection

Whether you already own a site for your project or would like our assistance in finding one that will meet your needs, we are diligent when it comes to site analysis. It is our belief that great design comes from a buildings relationship to its site. We analyze a projects site to determine what makes it valuable, what are its opportunities, and what about it is negative and needs to be properly dealt with.

Consultants Needed

Aside from our services in the Pre-design phase, most projects require that the owner hire consultants to prepare the following two documents:

Site Survey
A map depicting the boundaries, topography, utilities, and existing buildings on a particular site.

Soils Report/Geotechnical Investigation
Soil borings and laboratory tests performed to determine the strength,compressibility and other characteristics of the soil conditions of a site. This type of report is more frequently required in hillside or coastal areas.

We are happy to refer our clients to surveyors and soils engineers that we have used in the past.

End of the Phase

The pre-design phase officially ends when the owner signs off on the approved program, budget, schedule, and code analysis. At this point, any site analysis should also be complete.

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PHASE 2 Schematic Design

Goal: utilizing the criteria established in Pre-design, graphically explore design alternative concepts. Then present these options to the owner and narrow them down to one preferred concept.
Fee Breakdown: 15-25% of total fee

Commencing Design

Schematic design typically begins in rough form as sketches, floor plan studies, and/or quick models. Several owner/ designer meetings are typical during this phase to make decisions and determine a design direction.

Documents

At the end of this phase it is common to have the following documents:

1	Site Plan	A drawing depicting the buildings location on the site.
2	Floor Plans	Drawings of each floor showing the size and locations of the various rooms/ functions.
3	Key Elevations	Drawings of appropriate building sides to convey conceptual design direction for the project.
4	Key Sections	Building cut through drawings depicting the heights and relationships of the various floors and roof.
5	Area Analysis	A summary of the sizes of the various rooms/functions in the building.
6	Renderings or Model	3D renderings or a physical model depicting the overall look of the building.
7	Preliminary Cost Estimate	A rough estimate of the cost of construction based on the current building design.

The preceding list of drawings may still be rough in nature at the end of this phase. Their intent is primarily to determine a design direction with which to proceed into the next phase.

End of the Phase

The schematic design phase officially ends when the owner signs off on the drawings, giving approval of the design up to this point

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PHASE 3 Design Development

Goal: refine and develop the design such that most of the major design decisions have been made. Implement the various systems into the building.
Fee Breakdown: 15-25% of total fee

Finalizing the Design

The design development phase typically includes finalizing the size of the various rooms & spaces, refining the look of the project, selecting exterior and interior materials, determining the project's systems, and deciding upon door and window types and locations. This phase may also include several owner/ designer meetings which are critical to finalizing design decisions so that the detailed documentation can commence in the next phase.

Interiors

One common question that arises is what level of interior design do we provide as part of our basic services. Simply put, we will design everything that is typically built-in to the project. This includes basic cabinetry and finish materials such as tile. This does not include furniture or stand alone light fixtures. If you would like detailed interior design services, we are happy to provide these for you at an additional cost, or collaborate with the interior designer of your choosing.

Systems Consultants

It is during this phase that the systems consultants begin to design and draw up their portions of the work. For a list of potential consultants, see the consultant coordination section of this guide. It is our job to coordinate the work of these various consultants, implementing their drawings into the overall design of the project.

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Documents

At the end of the design development phase the previously listed documents from the schematic design phase should be updated in further detail. In addition, it is common to also have the following documents:

1	Outline Specification	Preliminary written description of the project's major systems and materials.
2	Key Interior Elevations	Drawings depicting the vertical relationship and material choices of the project's interior rooms.
3	Reflected Ceiling Plans	Drawings of the ceiling depicting locations of lighting, equipment, & level changes.
4	Interior Schedules	A detailed list of the type and location of interior finishes.
5	Door & Window Schedules	A detailed list of the type, size, graphic appearance and location of all of the doors and windows in the project.
6	Key Details	Large scale technical drawings of specific elements within the project.
7	Systems Consultants' Drawings	Varies with each project. May include structural, civil, electrical and mechanical drawings.

End of the Phase

The design development phase officially ends when the owner signs off on the drawings, giving approval of the design up to this point.

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PHASE 4 Construction Documents

Goal: to prepare the technical written and graphic documents that set forth the requirements for constructing the project and obtaining government agency approvals.
Fee Breakdown: 25-35% of total fee

Instructions for Building

The construction documents phase involves adding a level of detail and technical information to the design documents such that a contractor has a set of instructions with which to build the project as designed. This set of instructions is, however, not a complete set, as the contractor is responsible for many aspects of constructing the project.

This phase may also include several owner/designer meetings, however, it is not as likely as previous phases considering most of the design decisions have been made. This phase is more about the designer and consultants working through the technical aspects of the project.

Permitting

It is during this phase that the project is submitted to the local building department for what we call plan check. Plan check is the process by which the various city agencies review the submitted documents for compliance to the codes. The owner will be required to pay a fee to the city when the documents are submitted to plan check. The time frame for this process varies depending on your project's size, complexity and the speed of the local jurisdiction.

After the various agencies review the project they will return the documents with corrections. Every project has some level of corrections. This does not mean that the work was done improperly. The designer and consultants will then fix the corrections and resubmit the documents for a second review. If the submitted documents then meet the agencies approval, the owner will be allowed to pull a permit to construct the project. All this means is that you will pay the permit fee allowing construction to commence. For an additional fee, most jurisdictions will expedite this plan check process.

Documents

At the end of the design development phase the previously listed documents from the schematic design and design development phases should be updated in full detail. Additional documents will also be created as part of this phase and can vary greatly depending on the scope of the project. A completed construction document set is highly technical and can be quite extensive. Those unfamiliar with the industry will often have a difficult time understanding these types of drawings.

End of the Phase

The construction document phase typically ends when the permit is pulled and construction begins. However, sometimes a permit is pulled before all of the construction documents are complete since not all of the documents are required to obtain a permit.

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PHASE 5 Construction Procurement

Goal: to assist the owner in the selection of a contractor to build the project.
Fee Breakdown: 2-10% of total fee

The Contract Documents

This construction procurement phase will often overlap with one of the other phases depending on the method of selecting the contractor. It is important to note that the documents prepared by the designer and consultants in the construction documents phase are actually considered to be contract documents. They are a contract that the owner will hire a contractor to perform. In addition to the documents, there is an actual contract that must be signed between the owner and the contractor. The designer can help the owner to determine the type of contract to be used.

Contractor Selection

When it comes to hiring the contractor the owner typically has two choices:

1. Bidding:

    Involves making the set of documents available to two or more contractors who then submit a bid to the owner with how much it will cost to build the project including the contractor's fee. The owner can then select whichever bidder they want, even if they are not the lowest.

2. Negotiation

    Involves selecting a contractor based on qualifications, capabilities and/or referrals. Once a particular contractor is selected the owner then negotiates the terms of the contract with the contractor including the contractor's fee.

Which Method is Better?

There are positives and negatives to both processes. Either way, it is important to determine the method of contractor selection early on in the process. Brighton Architecture can help you determine which contractor selection method is right for you.

End of the Phase

The construction procurement phase typically ends when the contractor is selected and has signed a contract with the owner.

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PHASE 6 Construction Observation

Goal: to observe the construction of the project for general conformance to the construction documents. Assist the owner with contractor payment requests. Handle requests for changes during construction.
Fee Breakdown: 10-20% of total fee

The Owner's Agent

During the construction observation phase the designer will act as the line of communication between the owner and contractor. Once the project construction commences it is important to keep the designer involved in the project to assist the owner with the following tasks:

Observation Services
The designer will visit the construction site at appropriate intervals to observe the work for general conformance to the construction documents. Evaluate contractor requests for payment Assist the owner in processing payments to the contractor by visiting the construction site to determine if the particular work described in the payment request has actually been completed.

Process submittals
Review shop drawings, product data and samples for general conformance to the design intent. Review results of tests and inspections Keep the owner informed as to the progress of tests and inspections during the construction process.

Supplemental documentation
The designer can provide supplemental documents to clarify design intent for the contractor. Handle requests for changes The contractor, designer, or owner may need to change something during construction. The designer can administer this process and prepare the necessary construction document revisions.

Resolve claims between the owner and contractor
The designer acts as the mediator between the owner and contractor if a dispute arises. This is the first and least expensive step to conflict resolution during construction.

Administer the project close out process for the owner
Assist the owner with the various processes and steps that occur as construction ends.

End of the Phase

The construction observation phase typically ends when the construction is complete.

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