formation architecture, inc

process guide

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This is a process guide
to help understand
the role
and fee structure
of
FORMation architecture, inc.

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I graduated with my architecture degree from Montana State University in 1994 and began my internship in the Gallatin Valley soon after. After sitting at a desk for a year as an intern, I found that I needed to spend some time pounding nails in order to truly understand what clients and builders needed from an architect. I found work with a local craftsman and began my building career, becoming a partner and a self employed general contractor by 1996.

FORMation Architecture, Inc. was founded in 2005, after ten years of experience in the field of construction. It began as a joint venture with my wife, which combined architectural design and construction. By 2014, I decided to devote my time to architecture and design.

Being a licensed architect with 18 years of general contracting experience has earned me knowledge that I could not have had by solely sitting at a desk. My experience has given me the ability to design for both the client and the builder. Architectural design should fit with the needs and lifestyle of the client and it should also include a set of architectural documents from which a contractor can build.

The following guide has been formatted following FORMation Architecture, Inc.'s contract for services, ensuring that the information is current and relevant. Understanding the architectural process is important for clear communication, which will help us develop a strong team for your project.

Goal:

From start to finish, architecture projects can be a complex endeavor. For many of our clients this process is new and a bit scary. Our goal at FORMation is to make it fun and exciting. The most common questions we are asked here at FORMation are:

What is the PROCESS for getting a project designed and built?

What are the SERVICES that architects provide during this process?

This is a step-by-step guide in which we answer these questions so that our current and future clients can better understand the architectural process.

Questions?

If you have any questions regarding the information in this guide or our architectural services, please feel free to contact us:

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The Process:

Our industry has been around since the pyramids, and with that history 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 evolve throughout the course of a project.

Process Phases:

Standard phases bring an order to the architectural 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 the fee breakdown and billing. A common misnomer is that the architecture fee is due upfront or paid in one big lump sum. This is incorrect. Payments of architecture 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 architecture 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 that 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 architecture fee will be from the beginning of a project, helping to avoid surprises down the road.

Our architecture 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

At FORMation, we take time to understand our client's particular needs and custom cater our services to meet their expectations.

The Six Design Phases:

Phase 1: Pre-Design

Pre-Design encompasses all of the research done to determine the needs of client and the scope of the project.

Phase 2: Schematic Design

Schematic Design utilizes the research and decisions of the previous phase to establish a design direction.

Phase 3: Design Development

Design Development utilizes the concept determined to refine the design and implement detailed system schemes.

Phase 4: Construction Documents

Construction Documents prepare the technical documents that establish the requirements for construction.

Phase 5: Construction Procurement

Construction Procurement assists the client in finding and selecting a contractor to build the project.

Phase 6: Construction Observation

Construction Observation provides oversight during building to ensure adherence to the construction documents

Phase 1: Pre-Design

Goal: Research and determine the client's criteria for the project.

Fee Breakdown: 5-10% of total fee

Pre-design encompasses everything that is done before starting the design. Services included during this phase can vary greatly depending on the complexity of the project and the experience of the owner. On occasion, an owner will begin the process with some of the pre-design criteria already established. However, most clients benefit from the experience and research provided by our team in order to accurately determine the project's requirements.

Pre-Design Services:

Programming:

Programming services consist of the establishment and documentation of the detailed requirements for the project. This includes, but is not limited to; design objectives, development of spatial requirements, relationships between spaces, flexibility and expandability, special equipment and systems, and site requirements.

Budget Analysis:

The project budget, as defined by the client, will define the scope of services to be completed for both the architectural design and the manner and method of construction. This makes it an integral part of the design process.

During this phase the architect and owner generally assess the budget to determine if it is adequate to complete the project based on project type, project scope, quality, and time line for completion. 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 architect's fees and expenses, consultant fees and expenses, city fees, bank fees and interest, and insurance.

At FORMation, we feel that maintaining strong communications with the client throughout the project helps keep costs in line. Often the budget changes as clients add design changes and select materials for their project. It is important to keep the client informed of costs that affect their budget so there are no surprises in the end.

Schedule Development:

A project's schedule is complicated and variable. The schedule will be determined using the following factors:

Owner's Schedule	Owner's Decision Time
Architect's Schedule	Consultant's Schedules
Project Complexity	Permit Process
Contractor's Availability	Contractor's Schedule

Because of 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. FORMation's experience in researching and understanding codes is critical. We design your project to fit within the code parameters preventing costly code errors.

Spatial 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 Survey:
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 an accurate measurement is necessary. This is called as-built documentation. As-built documents clearly measure and create drawings of your existing building that are then used as a base to develop the new design.

Site Analysis and Selection:
Whether you already have a site for your project or would like our assistance in finding one that will fit your needs, we are diligent when it comes to site analysis. It is our belief that a great design comes from a buildings relationship to the sites surroundings. 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.

Pre-Design Consultants:

Along with the services we provide in the Pre-design phase, most projects require that the owner hire consultants to prepare the following documents:

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

Soils Report/Geo-technical 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 for hillsides or areas with questionable bearing capacities or ground movement.

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

End of Phase:

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

Phase 2: Schematic Design

Goal: Utilize the criteria established in pre-design to graphically explore alternative design concepts.

Fee Breakdown: 15-25% of total fee

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

Documents:

A number or drawings or documents will be produced during this phase as a method of exploring design options and communicating those options with the client. As such, *all documents produced during this phase are rough approximations and are subject to change* as the design proceeds in the next phase. At the end of the schematic design phase, it is common to have the following documents:

Site Plan:
The site plan is a drawing that shows the overall size and position of the building in relation to site boundaries and other important site features such as trees, creeks, and roads.

Floor Plans:
Floor plans are drawings that show the size and location of various rooms and their primary functions.

Key Elevations:
Elevations are 2D projections of the building sides that represent how the design concept is resolved in basic forms and materials.

Key Sections:
Sections represent and cut through the building in order to depict the interior volumes of space and the relationships of various floors and roofs.

Renderings or Model:
A basic 3D model or renderings will display the overall look of the building in perspective to give the client a real-world image of how the building would be.

Preliminary Cost Estimate:
The preliminary cost estimate is a rough idea of how much the building might cost to build based on construction type and size.

End of Phase:

The schematic design phase officially ends when the owner examines and signs off on the drawings produced, giving their approval of the design concept and design moves up to this point.

Phase 3: Design Development

Goal: Refine and develop the design so that most major design decisions are made and implement various building systems.

Fee Breakdown: 15-25% of total fee

Finalizing the Design:

Design development includes finalizing the size of rooms and spaces, refining the look of the project, selecting materials, determining the project's systems, and deciding upon door and window types and locations. This phase will include owner/architect meetings which are critical to finalizing the design so that the detailed documentation can begin.

Interiors:

One common question that arises is what level of interior design do we provide as part of our basic services. We are capable of and willing to 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. Detailed interior design services can be provided at an additional cost, or we may collaborate with the interior designer of your choosing.

Systems Development 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.

Documents:

Documents produced by the end of the Schematic Design phase will be updated with new design decisions and further detail. In addition, it is common to be presented with the following documents:

Outline Specifications:

This is a written description of the project's major systems and materials.

Key Interior Elevations:

Interior elevations depict the relationships of interior components with external components (such as windows) along with material choices.

Electrical & Lighting Plans:

Electrical and lighting plans depict the layout and locations of lighting, outlets, switches, and special equipment.

Door & Window Schedule:

This is a detailed list of the type, size, graphic appearance, and location of all doors and windows in the project.

Key Details:

Detail drawings are large scale technical drawings depicting specific design or construction elements within the project.

System Consultant Drawings:

System drawings vary with each project. They may include structural, civil, electrical, and mechanical drawings.

End of Phase:

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

Phase 4: Construction Documents

Goal: Prepare technical written and graphic documents that set forth the requirements for constructing the project and obtaining government 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. This set of architectural documents provides the contractor with a set of instructions with which to easily build the project as designed. This set of instructions is the complete architectural design set. However, the contractor is responsible for many aspects of constructing the project and must inform the architect when they feel a change is necessary or desired.

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

Permits:

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 document 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 projects 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 architect and consultants will then fix the corrections and resubmit the documents for a second review. After the submitted documents meet the agencies approval, the owner will then 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.

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. Often clients have a difficult time understanding all of the technicalities of this set of documents, but, don't worry we are here to walk you through them to make sure you have a good understanding.

End of 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 required for construction are necessary to obtain a permit.

Phase 5: Construction Procurement

Goal: 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 architect 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 is signed between the owner and the contractor. The architect 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 these choices:

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 contractor including contractor's fee.

Bidding/Estimating:

Involves making the set of documents available to two or more contractors who then submit a bid or estimate to the owner with how much it will cost to build the project including the contractor's fee. The owner can then select whichever contractor they want. Usually contractors estimate the cost of construction and work hard to stay with the budget, however, increased costs are the responsibility of the owner. Some contractors bid the construction and this is a set fee, however, this does not include any change orders made by the owner.

Which Method is Better?

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

End of Phase:

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

Phase 6: Construction Observation

Goal: Observe the construction of the project for general conformance to the construction documents, assist the client with contractor payment requests, and handle requests for changes during construction.

Fee Breakdown: 10-20% of total fee

The Client's Agent:

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

Observation Services:
The architect 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 drawing, product data and samples for general conformance to the design intent.

Review Results of Tests & Inspections:
Keep the owner informed as to the progress of tests and inspections during the construction process.

Supplemental Documentation:
The architect can provide supplemental documents to clarify design intent for the contractor.

Handle Requests for Changes:
The contractor, architect, or owner may need to change something during construction. The architect can administer this process and prepare necessary construction document revisions.

Resolve Claims Between the Client & Contractor:
The architect 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 Client:
Assist the owner with the various processes and steps that occur as construction ends.

End of Phase:

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

Project Administration:

For us at FORMation architecture design is often the “fun part of our job”, however, when we take on a project much of our time is spent on the less glamorous, but equally important administrative process. Project administrative services occur throughout all phases of the project and are included in the basic fee for services.

Keeping the Project On Task:

General administrative tasks may be as simple as a phone call to inform the owner of some information, or as complex as internally coordinating a detailed set of construction documents. Communication and organization are key to a smooth administrative process. At FORMation architecture, we pride ourselves on these skill sets. Often a well-designed process can be just as valuable as a well-designed building.

Examples of general administration on a project may include:

- Phone, e-mail, and fax correspondence with the owner
- Owner meetings and presentations
- Preparation of meeting agendas and minutes
- Internal coordination of staff
- Internal coordination of files and documents
- Invoicing

Consultant Coordination:

Design and construction are team processes. There are often may parties involved outside of the owner-architect relationship. Consultant coordination involves coordinating the various consultants required or desired for your project.

Required Consultants:

Government agencies responsible for your project require certain consultants be involved in your project because their expertise is critical to the safety of your structure. The type and number of consultants required will vary from project to project, and is most often based on your project’s location, type, and size.

Some of the required consultants may include:

- Surveyor
- Structural Engineer
- Electrical Engineer
- Environmental Engineer
- Geologist
- Landscape Architect
- Energy Consultant
- Mechanical Engineer
- Civil Engineer
- Subdivision Engineer
- Soils and/or Geo-technical Engineer

Desired Consultants:

As the owner, it is your choice to bring on other consultants to assist with specialized portions of the project. If appropriate to your project, desired consultants can greatly enhance the design or process of a project. Some desired consultants may include:

Landscape Architect	Lighting Designer
Kitchen Designer	Interior Designer
Acoustic Engineer	Cost Estimator

Working with Consultants:

When it comes to consultants, you are not alone. In fact, we take care of most of the communication with consultants and their organization. We assist our clients with consultants in many ways, including some of the following:

- Help determine the necessary consultants for their project
- Suggest two to three appropriate consultants for each field
- Prepare “requests for proposals” (RFPs) for the consultants
- Help select consultants based on their price, experience, skill, and professionalism
- Coordinate consultant services throughout the course of the project, including communicating the design intent of the project to the consultants and cross coordinating their drawings with our drawings.

Consultant Fees:

At FORMation architecture, we do not directly hire outside consultants, however, as you can see, we handle almost the whole process. All the owner has to do is select them, sign their contracts and pay them when an invoice is received.

Agency Coordination:

Government agencies play a key role in getting your project designed and built. Each project can have a unique set of applicable codes and processes with which to navigate. We are available to get your project through the various agencies.

Services:

Agency coordination occurs throughout the various phases of a project and will vary greatly depending on the type, size, complexity and location of your project. These services may include the following:

- Meeting with agencies to verify code requirements
- Preparation of documents for a planning approval process
- Presentation at a public hearing
- Preparation of documents for a design review board
- Environmental process coordination
- Historical process coordination
- Preliminary plan check review
- Plan check submittal
- Plan check re-submittal
- Pulling a permit
- Obtaining departmental sign-offs
- Obtaining agency approval of changes made during construction

Fees:

Due to the uncertainty of how much agency coordination will be necessary on any given project, these agency coordination services are not included in the basic fee, but are billed on a separate hourly basis.

Thank you for taking the time to review our Architectural Process Guide.

Now that you have a more clear idea of what this process entails, you may be ready to get started on that project you've been thinking about. FORMation architecture is here to help you with any questions you may have about this process or anything architecture/building related. Please don't hesitate to contact us at FORMation architecture for some friendly advice.

You may want to check out our website for more information at :

www.formatonarchitecture.com