



ARCHITECTURE  
**EXPLAINED**



# 6 phases of the Design Process

# Introduction

If you've hired or worked with an architect (or you're planning to) the technical terms that are often used can quickly become confusing—and I can sympathize, as a non-architect who has worked in an architecture firm for many years! It can be hard to understand the “lingo” associated with their work—but you can (and should) develop a basic understanding in order to optimize communication between you and your design professional.

This whitepaper gives a very basic overview of the phases of the design process. These are important to know, because your design professional typically plans their progress and schedule in accordance with these milestones—though they are sometimes modified to meet a particular project's needs. The design phases will usually be listed in the contract, but beyond that, you may be wondering what they actually mean and what you can expect to see at each phase (note that this whitepaper is written from the perspective of commercial projects—residential projects can be quite different).

The American Institute of Architects' (AIA) standard contract outlines five phases of design that are typically part of the basic services your architect provides:

schematic design  
design development  
construction documents  
bidding/procurement  
construction administration

I'm including a sixth phase, **programming**, which is usually not included in your architect's fee for basic services, but is often added in as an extra. This phase is an important first step for many clients in order to establish the project parameters. Not all clients hire an architect for this step, but if you need help determining what exactly you need in your new space, your design professional is well-suited to help.



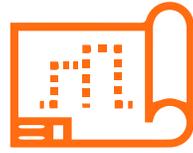
## Programming

*The main goal during this phase is to figure out how much space you need now, how much you're likely to need in the future, and how that space should be used, organized, and arranged – the “program of requirements.”*

During this phase (also referred to as Program of Requirements), your design professional will ask you a lot of questions and do a lot of listening – and possibly some onsite observations, interviews, and workshops with your organization. This phase involves a lot of research on the part of your design professional and a lot of participation from you. As you can imagine, it's vitally important to get this phase right – nobody wants to make a big investment in a building only to outgrow it far too soon or end up with a lot of wasted, unused space because it's too big. Your design professional will work closely with you to determine your space needs, as well as how they can be arranged and used most efficiently. Additionally, your architect will start to look at applicable zoning, building code, and other regulatory requirements, and will work with you to develop a project schedule that meets your needs.

What you'll see produced in this phase varies per firm, but it's usually a tabulation of some sort (often an Excel spreadsheet) that lists the types of spaces and square footages of each. You may also see some basic diagrams that illustrate things like department adjacencies and anticipated workflow or circulation.





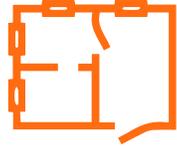
## Schematic Design

*Your design professional takes your Program of Requirements and begins the process of translating it into an efficient building design.*

Schematic design is fairly conceptual in nature, so it doesn't go into much detail yet. Your design professional will begin to lay out the site, the interior spaces, and develop basic exterior designs, if your project includes exterior work. Usually your design professional will prepare a cost estimate as part of this phase as well.

The deliverables that your design professional will prepare in this phase include preliminary drawings such as floor plans, elevations, and a site plan if applicable. You may also see some sketches or you could ask your architect to do some computer renderings (usually this would be another add-on service) to help you visualize and get a sense of how the spaces will look and feel. For the most part, the design won't yet include things like what types of materials will be used, so if you do get sketches or renderings, keep in mind that what they're showing isn't necessarily final. Oftentimes the design professional (and their consulting engineers) will prepare a narrative as part of schematic design, which describes broadly the project and what kinds of systems (e.g., HVAC, electrical) the building will use. This also helps the team estimate the project costs.





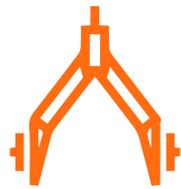
## Design Development

*The building's exterior will be more fully designed (if applicable), interior layouts will be completed, room sizes are finalized, and most materials are selected.*

In this phase, your design professional advances the design significantly. The main goal of this phase is to define and develop the important aspects of the project. The exterior, interior layouts, room sizes, and materials are more fully designed. The engineers will further develop the HVAC, plumbing, and electrical systems.

The deliverable in this phase is a much more detailed set of drawings than the schematic phase (it looks like they're done, but they're not) and (most likely) a specification book, which can be thought of as the written instructions for the drawings. The specification book will specify the materials that have been selected, and provide things like installation instructions, quality control requirements, and other technical information. An updated cost estimate is usually produced as well.





## Construction Documents

*This phase basically takes the design development drawings and specifications and fills in the details that will enable a contractor to actually build your project.*

All necessary technical information is finalized, and the final set of drawings and specifications will include the information that's required in order to obtain a building permit from whichever local authority has jurisdiction (eg the city, county, etc.). Your architect will typically handle the permitting process for you, and if the authority has questions, requires additional information, or requests changes/corrections to the drawings (all of these scenarios are pretty common), your architect will take care of it.

The deliverable in this phase is a complete set of drawings and specifications, referred to as the Construction Documents, which will get submitted for permit and given to contractors to develop bids/quotes for the work. Again, an updated cost estimate is usually produced as well.





## Bidding

*This is just what it sounds like – obtaining bids from contractors to do the work.*

There are a lot of different ways of hiring contractors; if you work for a public entity there are laws that govern how you do this, but if not, then you have some flexibility. You could choose a contractor based on their qualifications, and then negotiate only with them, or you could select a few contractors to get quotes from so that you feel confident you're getting a competitive bid. Your architect can help you explore your options.

During the bidding or procurement phase, your architect will answer contractors' questions, issue formal clarifications to the drawings or specifications if necessary, and help evaluate the bids to make sure the contractors' prices include everything they're supposed to.



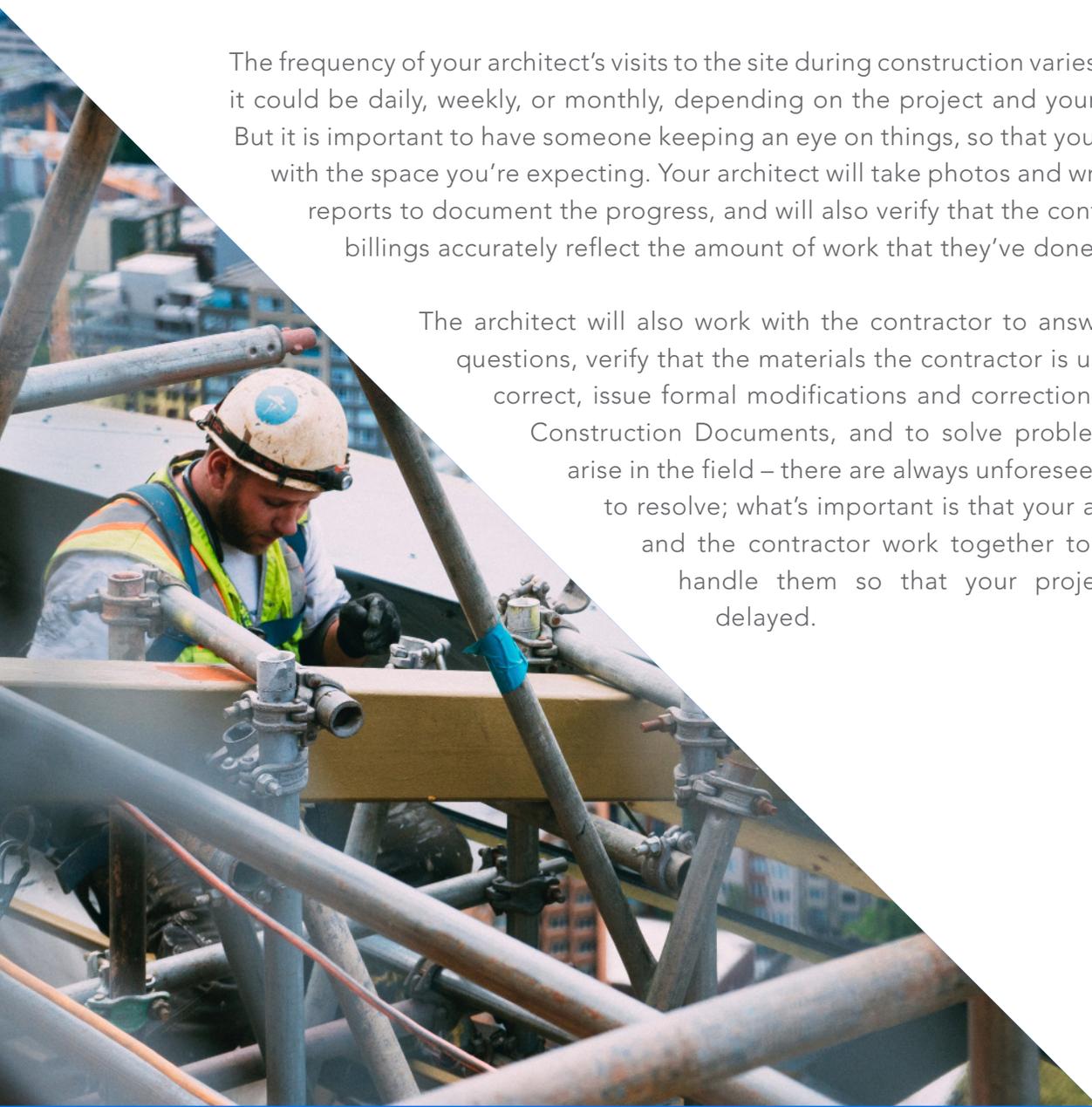


## Construction Administration

*This phase involves your architect monitoring the construction to verify that it is happening in accordance with the Construction Documents they prepared.*

The frequency of your architect's visits to the site during construction varies widely; it could be daily, weekly, or monthly, depending on the project and your needs. But it is important to have someone keeping an eye on things, so that you end up with the space you're expecting. Your architect will take photos and write field reports to document the progress, and will also verify that the contractor's billings accurately reflect the amount of work that they've done.

The architect will also work with the contractor to answer their questions, verify that the materials the contractor is using are correct, issue formal modifications and corrections to the Construction Documents, and to solve problems that arise in the field – there are always unforeseen issues to resolve; what's important is that your architect and the contractor work together to quickly handle them so that your project isn't delayed.



# SUMMARY OF 6 PHASES

That's a quick overview of the design phases that will hopefully help you know what to expect when you start working with a design professional! Keep in mind that these could be modified or compressed, particularly on smaller projects, but generally this is it how it goes!



## Programming

You're figuring out how much space you need, how much you're likely to need in the future, and how that space should be used, organized, and arranged.



## Schematic Design

Your design professional takes your Program of Requirements and begins the process of translating it into an efficient building design.



## Design Development

The building's exterior (if applicable), interior layouts, and room sizes are finalized, and most materials are selected.



## Construction Documents

All the details of the design development drawings are filled in so a contractor can build your project.



## Bidding

This is just what it sounds like – obtaining bids from contractors to do the work.



## Construction Administration

Your architect is monitoring construction to verify that it is in accordance with the documents they prepared.



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## About the Author

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Laura is Schooley Caldwell's Marketing Director and Business Development Manager, and has worked in the A/E/C field for over 16 years, giving her a thorough understanding of the industry. Her role includes market and project research, lead identification, assembling teams of consultants, marketing strategy, client development, and firm communications. Laura is also our resident party planner, and when cupcakes or milkshakes randomly appear in the office, she's usually behind it.

Laura is a lifelong Columbus resident and holds a Bachelor's degree in Anthropology from The Ohio State University. She is obsessed with beaches – fortunately she has a lot of family in Costa Rica and visits as often as possible. She and her husband live in German Village with their pets (Lily the dog and Luna the cat, who are mortal enemies), and outside of work she enjoys cooking, traveling, visiting local breweries, and reading.





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