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## Home Architects® Client Centered Architectural Design Process

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Many clients come to me, wondering what the process is. "What happens next? How do we get from here to obtaining our custom home design, then getting prices from contractors and having our new home built?"

Good questions. I am Rand Soellner, AIA / NCARB / LHI. I am an architect of custom homes and other buildings. I have been doing this for a living for most of my life. Several decades. I have a bachelor's &a master's degree in architecture and have been a licensed architect since 1982. I also happen to be a licensed home inspector. I have been blessed to have accomplished this process for my clients countless times over the years. First and foremost, this effort should be done with Enthusiasm, Excitement & Joy! It should be as fun as possible. I am in the middle of writing a book about this, called HomeOwner's guide to Managing the Design & Construction of Your New Home, by the HOME ARCHITECTS ®. It will probably be out on Kindle during the next couple of years and will be novel-length. In the meantime, I prepared this much shorter summary, to assist my clients and potential clients and others who would appreciate some guidance in this effort.

If you would like, at any time, to directly contact me and ask questions, or engage my firm to design your custom home, you may do so here:

Click on the

E-mail address to immediately Contact the HOME ARCHITECTS ® E-mail: <u>Rand@HomeArchitects.com</u> Phone (USA): 1 . 828 . 269 . 9046 Website: <u>www.HomeArchitects.com</u>

365 / 9AM-9PM EDT Global & National Practice With that said, let's get down to it. There are 8 main steps:

- 1. PROGRAMMMING
- 2. SCHEMATIC DESIGN
- 3. DESIGN DEVELOPMENT
- 4. CONSTRUCTION DOCUMENTS
- 5. BIDDING/PRICING
- 6. CONSTRUCTION ADMINISTRATION
- 7. WARRANTY PERIOD
- 8. POST-WARRANTY

That's it. That is the Architectural Design & Project Construction Process in a nutshell.

Now, you are probably asking yourself: "Okay, so what do those terms mean? And how is it <u>Client-Centered</u>?" And why would you want an architect designing your new home project with a Client-Centered approach as opposed to how someone else might do that and how would that impact the quality, personality and enjoyment of the design that you obtain?

These questions will be answered by explaining how each of the 8 steps work. Wherever our process is involved in an especially **Client Centered Activity**, we will post a "**CCA**" by it. While there are similarities to this process from others, each company has their own particular forte. **Ours is: Client-Centered**. <u>Our projects</u> <u>Start with You and stay focused on You</u>.

## 1. Programming

Programming is what happens first.

### CCA:

We, as your architect, listen to you tell us what you want.

We take notes and ask occasional questions. We verify certain things that our experience tells us you might wish to consider, as people often have preconceptions that impact their cost, without them understanding that. We point out these items, so that you can determine how important various aspects of your project will be to you in terms of budget and functionality.

### CCA:

We document these descriptions of what you want, with our input. We then often e-mail the Program Document to you, for your review, consideration, possible modification and eventual approval.

### CCA: You approve the program.

# 2. Schematic Design

After we obtain your approval (above for the Program), we can proceed to Schematically Design your project.

### CCA:

### Typically, we will coordinate with your surveyor,

helping you obtain a survey that has what is required to allow us to properly do our job. You don't have to worry about this; we will handle it for you, after we obtain your surveyor's contact information from you.

The survey is the legal canvas on which we paint. It tells us the size and dimensions of your land, records any legal easements, building setbacks, utility locations and other important information that affects the placement and design of your new home.

We are amazed that some firms still do this by hand or with sketches. The width of a pencil line on a survey can be 5' or more, depending on the scale. That could result in serious errors and we don't tempt fate in that manner. We draw everything on computer, from the beginning, so everything we create for you is precise. We know if your home works, right from the beginning. Next, we will create the first iteration of your Floor Plans & Site Plan. Then we stop. Why? Because you need to see what is happening right now!

### CCA:

### We provide you with the initial Schematic Design.

We either meet with you in person or FedEx hardcopy of the Schematic Design documents, or we will electronically PDF them to you, for your review, consideration, possible modification and eventual approval.

You may ask: well, wait, why don't you create the whole design before showing us anything?

The answer is: We consider such a procedure to be downright arrogant. How dare your architect go so far down the road with his design before obtaining your input and reaction to what he or she has done thus far? It is your house; your land; your money. You deserve to be an integral part of its creation. You are a design team member, in our process.

### CCA:

At least, that's how our <u>Client-Centered Architectural Design Process</u> works: **we obtain your input and approval all along the way**.

So, you review the SD (Schematic Design) and we talk about your feelings and perceptions. Do Not be shy. As we've said above: this is your money, your land, your house and your future lifestyle. We want you to be happy in this new home.

### CCA:

We make your requested changes to the plans and then proceed to the next stage in the process.

### CCA:

We request your approval, allowing us to proceed to the next phase of our work.

## 3. Design Development

### CCA:

After we obtain your approval for the Schematic Design,

this is where we Develop the previous plans and add more detail and also create the exterior building elevations. Elevations are what your home looks like from the outside as you stand and face your home, looking at the various sides, straight-on. First, we only create the Front Elevation and stop. Why? Because before we are so presumptuous as to create all of the elevations, we should at first obtain your review and approval of the direction in which we are going aesthetically. Once again, how dare any architect proceed to do a ton of work (for which you are paying) before receiving your approval for the artistic design direction? After all, this home will be a reflection of your taste, your style and will become your "face to the World," when people come to visit you there.

### CCA:

### We provide you with the Front Elevation.

We either meet with you in person or send you a hardcopy drawing via FedEx, or electronically send you a PDF depicting the evolving plans and the Front Elevation. We ask for your consideration, review, possible changes and eventual approval.

### CCA:

### We make your requested changes to the Front Elevation.

### CCA:

We then request your approval of the Front Elevation and status of the project to date. After you provide your approval, we then proceed to create the remaining Exterior Building Elevations of your proposed home. Can you guess what happens next in our HOME ARCHITECTS ® Client-Centered Architectural Design Process? Yes. We want your input and your approval before proceeding. You are in integral part of our team. We are Your team, working with you to obtain the design that you want.

### CCA:

### We provide you with all of the Exterior Building Elevations and developing plans.

You will begin to notice that dimension lines are appearing all over the project documents and our unique Numbered Drawing Note system is identifying various things on the drawings, keyed to a list of note descriptions, that results in precise and neat project drawings, linked back to the specifications (in a future phase of the work). We have our own ISO 9000 process for our computerized drawings, with dozens of checklist items so that your documents are well-coordinated and professionally accomplished.

We request that you review the Design Development (DD) documents, make requests for modification, if any, and approve them.

### CCA:

We make your requested modifications, based on the scope of work and our agreement with you.

CCA: We ask for your approval of what we have created for you thus far.

# 4. Construction Documents

### CCA:

#### After we obtain your approval of the Design Development

and your permission for us to proceed, we then create the CDs (Construction Documents).

This is where the rubber meets the road.

What we mean by that is: these will be the documents that are intended to be used by your contractor to build your home. This is where the remaining detail is added that will provide the information to answer most of the questions posed by your builder. At the HOME ARCHITECTS <sup>®</sup>, we believe in creating a very detailed set of documents with lots of dimensions & notes, specifications, and other information to properly explain the design intent to result in a good project. Although not necessarily all-inclusive, CDs often include:

Title Sheet General Information & Drawing Index Floor Plans Site Plan Exterior Elevations Roof Plan **Building Sections** Wall Sections Details Finish Schedule Door Schedule **Specifications** Electrical Schematic Plans **Cabinetry Elevations** Possible 3D Imagery Structural Engineering Documents

There are also other services that may result in the creation of additional documents.

### CCA:

Our extra effort to create this detail is part of what we do on your behalf. It gives you an excellent set of documents. Good documents will hopefully give you a better job from your selected builder, assuming that he or she does their part to build according to the approved documents.

### CCA:

During the creation of the CDs, most clients are not very interested in the day-today document creation. However, we do request a few important reviews with you to insure that you approve what is in the CDs. For instance, we review the Finish Schedule in detail with you. We also read through the highlights of the specifications (which is a long session).

We have heard that not many other architects and certainly not so-called "residential designers" have anywhere near the level of detail we provide in our documents. Many do not even provide specifications. And what are specs? They are the detailed text descriptions of WHAT is being used in your project. Specs determine the Quality of the components of your project. Without them, you are relying on what few notes the person creating your documents has managed to squeeze onto the drawing sheets, and that will not be much. Our specifications typically consume from 4 to 6 full size 24" x 36" drawing sheets. And just why do we put our specs on drawing sheets, rather than in a separate book (like on commercial projects)? Because on residential projects, our experience has taught us: "Out of Sight; out of Mind." In other words, it is too easy for someone to say: "Oh... there are specs? I didn't get a copy of those, so I just provided what I always do." So we don't allow that to happen. We make the specs a part of the drawing set. With the specifications providing the "What," our graphic drawings indicate "Where" and "How Much," and locate the elements of your new home in 3 Dimensional space: How Wide, How Deep, How High.

We also provide a substantial amount of detail on our typical projects, in the form of Building Sections & Wall Sections and details. We like to use very large scales on our plots so that builders can easily understand how things go together. Why this is important: So your home doesn't leak or fall apart or rot. A highly experienced architect, skilled in creating quality home designs over several decades knows how to put together a project so that it will last. Having that skill in the form of details on the drawings helps convey that knowledge to your builder, so that he will have the information to do things properly. This will require the cooperation of your builder.

To illustrate the benefits of well-detailed documents, let's consider just <u>one thing</u>, in-depth (doors & windows: we could examine many more items, but we want this guide to be of a reasonably digestible length).

For instance, we recently conducted a Forensic Architectural Study of a person's house. We did Not design that home. Nearly all of their windows were leaking and had rotted out the portions of walls beneath them. The home was only 8 years old. The homeowner is going to pay about \$50,000 to have his windows replaced, including material and labor.

What had happened is what happens all over the USA & World: when the windows START to leak (not IF), any unprotected materials under them will receive water, which will grow mold and decay the wood and other materials under them, resulting in a structurally unsafe and environmentally unhealthy home.

Most windows do eventually fail. Most people don't notice, because they cannot see into their walls and do not check the surface with a Moisture Meter like we do.

We do not know ANY other architects or builders or building departments that detail window & door openings in the safe manner in which the HOME

ARCHITECTS<sup>®</sup> do. We use a double-coating, double-flashing method to protect the wood of the rough opening BEFORE the windows & doors are installed, including using proper flashings and long-term sealants and quality flashing tapes to provide paths of travel for the water coming from leaking windows & doors to get to the exterior of the home, Not into structural spaces. Would this protect you from a possible future \$50,000 unplanned future expenditure? Yes. Would that be worth hiring a highly qualified architect to design your home? Only you can decide. The IRC (International Residential Code) at the time of this writing has only one sentence concerning the installation of windows. It refers to an ASTM standard, that unfortunately allows windows to be installed in the manner in which most builders do it today. Unfortunately, this allowed method relies on the watertight integrity of your window to last forever. Would you think that your windows would perform well in a submarine? Of course not. So expecting this same level of water resistance in your walls is equally improbable.

This level of watertightness in windows simply does not exist and certainly will not for decades, or over 100 years, the likely length of time your home may stand. Not in expensive windows, and certainly not in the everyday type of windows that probably have been or will be installed in your home. Your only protection is to have the windows installed ASSUMING that they will fail and have your architect detail those openings accordingly. Such is our practice. Once again, we know of NO ONE anywhere else that goes to this trouble. We believe it is irresponsible to do otherwise. We have been criticized for going to the trouble we do with our details; typically by residential contractors. Why would you suppose that is?

Because they have their methods of expediting their work and don't like having to alter that flow. Also, their comprehensive warrantee to you, as a homeowner, is typically only 1 year. After that, you have to typically contact the providers of

the various materials and appliances and doors & windows, not your builder, who is off the hook after that single, solitary year. Did you know that?

The way things should be: the builder & and architect should be both devoted to the best interests of the homeowner. We have enjoyed this relationship with a number of contractors & homeowners and this is our desired project method. Unfortunately, when the homeowner exerts pressure on the builder to reduce costs, often quality is also reduced and the builder can legitimately point at the owner as the source of the quality cutting. Having your architect involved can help you temper this process to prioritize things to insure that you hopefully will not have nasty \$50,000 surprises 8 years from when you move into your dream home.

### CCA:

Proper design of window and door installation, (and many, many other conditions) detailed on the architect's drawings.

### CCA:

When we have created the CD set, we then provide you with a set, either hardcopy or PDF or both, as you wish. We request that you review these (often with our guidance), for your information, possible minor modification and approval.

### CCA:

When you have approved the CDs, we then proceed to conduct the following service, if you have engaged us to provide this option: Bidding.

# 5. Bidding / Pricing

### CCA:

After receiving your CD approval, if you have engaged us to provide this service, we help you solicit licensed General Contractors to Bid your project.

This is a very detailed process, and we coordinate with the NAHB (National Association of Home Builders) across America, to find qualified possible builders for your project.

We review their licenses with the State of the project and see what complaints, if any, they have received. Why would this possibly be of interest to you as a homeowner? Well, we had one client that favored a particular builder and he was going to engage him to build his house, but in the end, the client thought he ought to have his architect (the HOME ARCHITECTS ®) manage the bidding process for him. Good choice. Right off the bat, we discovered that the client's favorite builder had 3 registered complaints with the State Board of Contractors. One was for building a house without obtaining a permit. Another was for not properly stabilizing the soil near a house and the foundations began to crack, sink and fail. Good grief! Not the sort of builder any of us would want! The homeowner would have simply proceeded on his own and who knows what would have happened on his job?

In addition, we review the sort of work accomplished by the various builders (we reviewed over 70 possible builders for one project during the last year). We look for compatible examples of the type of homes they have built, as compared with what has been designed, by reviewing contractor's websites and images of homes they e-mail to us, and sometimes through discussions with other architects on those projects. We are members of the American Institute of Architects and we have about 80,000 brother & sister architects all across the USA. We narrow the field of possible builders from a "LongList" (sometimes 70+ builders) to a MediumList (perhaps 20+) to a ShortList (8 or so), which eventually results in the final 4 be asked to bid.

### CCA:

### All decisions are made with your input.

Conversations are had with the ShortList contenders. References are requested allowing you to go to several example homes built by the final contending contractors and talk to their clients and to personally allow you to see the quality of the construction of the contractors. You decide what builders you feel provide the best product. If any of these builders has ever worked with an architect before, we phone them and ask about their experiences. Ultimately, we create a large spreadsheet, with questions on it that the final contractors answer and we rank the builders based on their answers. We review with them our website imagery and point out examples of homes that we have designed that are similar to the one being created for you. We ask the builders how comfortable they are with the construction techniques involved and note their responses.

### CCA:

### All of this information about the background of the builders is shared with you.

Then, you make the decision, along with our input, as to the final 4 who will be allowed to bid your project. We manage the bidding process, notifying those lucky builders who get to price the job. We provide them with the approved project CDs. We answer their questions. We provide them with the rules of the bid, establishing the bid date and time, when the bids are due and in what format, so that we can compare apples to apples, assisting you in that comparison process. We create and publish addenda and drawing clarifications that we feel are necessary. We obtain insurance forms from the contractors, so that we know they are properly insured for Worker's Compensation and General Liability.

We counsel you on obtaining your own Home Construction Insurance. Why, you may ask? Doesn't the Contractor provide that? Well, let's think about that. Why would you want something that you own being insured by the guy that is building it? Did you know that if you own the land, any improvements made upon that land are now typically owed by you, subject to any liens that may be filed? (always seek legal advice from your attorney). So, if you own the home as it is being built, shouldn't YOU be the one who gets paid by the insurance company if something bad happens during construction? Like fire, theft, vandalism, lightning and other destructive forces? Why would you want your builder to receive those funds? You've already paid him. This is just one of the experienced pieces of advice that you receive from doing business with an experienced home architectural company, and when you allow your architect to continue into the construction portion of your project.

### CCA:

### Wise counsel regarding your insurance coverage for your under-construction home.

Then, knowing the bidders, having given them the information they need, the architect manages the receipt of the bids for your home. We list the bidders on a spreadsheet form that we created for this purpose, comparing the various bid breakdowns against each other, seeing who is low, who is high and in what categories of the work. We also compare the bids to historical data from other projects of ours, over the years.

### CCA:

The architect shares the bids and bidder's ranking with you.

### CCA:

The architect discusses with you, his background knowledge of what is likely going on with the various bids and who appears to represent the best value to the homeowner.

### CCA:

### You have just obtained your most reasonable bid, based on a professionally managed bidding process.

Now, it is up to you to make your choice as to which contractor will get your business. When you decide, then comes the next phase in this process.

# 6. Construction Administration

### CCA:

If you wish, we can provide Construction Administration for your project.

This is the phase in the project where your sign a contract with your builder to construction the project for you. This usually takes a few weeks to mobilize. This typically can be anywhere from 2 weeks to 2 months, depending on your contractor's circumstances and your desired start date. No one appears on your site the next day, ready to dig dirt. It takes some planning on the part of the builder and scheduling of personnel and subcontractors. Also, there are administrative tools that we request on your behalf that your builder must prepare, like a Schedule of Values, that lets you know, in general, what is going to be done and when, and the monthly charges you can expect associated with that work. Our presence on your project helps you to obtain professional tools like this, otherwise some builders might not provide such items. Our fiduciary relationship is with you, the Homeowner. We look out for your best interests. Building a project costing several hundreds of thousands of dollars (or more) could benefit greatly from having the architect watching out for your best interests.

For instance, you could direct your builder, in your agreement with him, to run his Pay Requests through the architect. This means that your architect reviews what your builder is charging you for and your architect reviews what he has accomplished on your site, before approving the pay request. This can even be done remotely, using digital photography from you, the builder, or others, sent to the architect, or the architect can make in-person occasional site visits. The architect compares what he sees as being installed on-site with what the Contractor's Pay Request indicates. Unless you happen to be a skilled construction person, you may not understand what you are being billed for monthly. An experienced architect will swiftly know if the charges in the GC's (General Contractor's) Pay Request match the anticipated Schedule of Values and what is seen on-site.

### CCA:

### This can protect you from over-paying for construction invoices.

Your architect also checks what is in place in the project and compares it with the approved CDs (Construction Documents) to insure that, in general, the work

of the GC is in accordance with the design intent, and in compliance with what you thought you were receiving. This can be an ulcerating experience if you go this alone.

### CCA:

Having the design professional that created your Construction Documents with you during this sometimes bumpy ride can help smooth your path of travel. When a builder knows that an architect is involved, he has a higher level of quality to which he knows he must adhere.

Many contractors work very hard for a living and deserve every penny they are paid. Occasionally, there is a rascal that gives the others a bad name. That's one of the things that your architect can help you monitor. And even the "good guys" sometimes need guidance in how to handle situations and having your architect and your GC on the same page helps you to obtain a better project.

### CCA:

There are thousands of decisions required during the construction of a home. Having your architect along with you during this effort can help you make sound choices that improve your project.

### CCA:

Once in a while, a homeowner may want to replace their contractor. As unpleasant as this sounds, this does happen occasionally, **and having your architect helping you make the transition can help things proceed in a more businesslike manner**.

### CCA:

Often a GC or his subcontractors are not familiar with a higher quality of material or detail and can miss things, resulting in an unintentional degradation of quality in your built home and a reduced quality in your lifestyle later, due to such missed items. For instance, we here at the HOME ARCHITECTS ® specify 100% epoxy arout and tile setting bed, resulting in a situation where you should never have to work hard to clean your tile joints in your shower, because there are no pores in the grout to harbor mold spores, because no water is used in the mix. like is typically done with Portland Cement (which most tilesetters use). **So**, having your architect along during construction presents a valuable qualitycontrol situation, in which your architect can alert your GC to this situation and ask them to coordinate with their subcontractors to use what was specified, to avoid any problems and that the architect will be looking for this in the next few upcoming weeks and during the Pay Request review. This sort of coordination puts the GC on notice that he must communicate with his subcontractors to use the quality materials specified to result in the quality project for which you are paving. This then provides you with a lower-maintenance home and more leisure time to enjoy, just one of the benefits of having your architect provide Construction Administration (CA) services.

There are other benefits but we wish to move this description along. Once Construction of your home is done, there are typically 1 or 2 "Punchlists" that the architect administers, to request that your builder correct certain things that do not appear right. This helps you obtain that "squeaky clean" high-quality finished home that you want and deserve.

# 7. Warranty Period

You think that you are done completely when the construction is done and you have moved in. Well, what if something happens during the Warranty Period? Like a leak? A malfunctioning appliance (if the GC provided those), a window pane cracks, a door's hardware doesn't seat properly, some material rots, the air-conditioning goes on the blink, your fireplace damper doesn't draw the smoke adequately, your garage door doesn't hit the concrete squarely, or any number of unfortunate things.

### CCA:

Having your architect provide you with occasional hourly Warranty Period services can help you obtain the attention you deserve to have your GC fix these situations under his comprehensive (and typically 1-year) bumper-to-bumper warranty. Not having your architect involved can sometimes be less effective. Your architect knows where to go with State Boards to file complaints, if necessary and the mere implication of such an action often results in swift attention to correct latent defects in the materials and workmanship of your home. Often such discussions are not even necessary, as contractors often view architects as the source of future projects, whereas your home may be the only thing that builder will ever do for you. GCs often prefer to cooperate with architects to keep things positive and to prove that they are a quality builder who takes care of their clients after the sale.

### CCA:

At about the 10 month point after your home's Substantial Completion (a technical term that your architect usually defines for his projects), he will want to schedule a Warranty Walk-Through of your home, if you have engaged him to provide this service. Your architect schedules this at the 10-month point, to give your builder time to make the corrections noted Before the 12 month warranty

expires. So, having your architect coordinate and manage this event can result in you obtaining hundreds or thousands of dollars of potential corrective procedures and materials if anything is noticed that needs attention. Not many homeowners are aware of this or take advantage of it. Having your architect coordinate it gives it the professionalism it deserves. Contractors take this very seriously. Whatever you pay your architect to conduct this review is typically paid back many times over in corrective actions on the part of your builder.

### CCA:

If you have had unfortunate relations with your builder since you moved into your home, **having the architect conduct this warranty review as an impartial 3**<sup>rd</sup> **party usually has more effectiveness that trying to do it yourself**. Your builder may interpret such unilateral actions on your part as simply one more attempt by you to gouge him for things he deems unreasonable. The architect can help things remain on an even keel and typically builders are anxious to accomplish such final lists and be done.

# 8. Post Warranty

### CCA:

Well, you thought you were done again, but with a house, there is always something that you might be considering doing, or something may have happened. For instance, you may have been in your home for 4-1/2 years and suddenly your air-conditioning goes out on you. You may discover that your heat pump failed. Some people may just pay to have such expensive things replaced. If you had consulted your architect, and paid a simple and economical hourly rate, you may have discovered that some items like this may have 5 years or more coverage from the manufacturer. Having your architect look into this for you could save you thousands of dollars.

### CCA:

Also, you may want to consider having your architect conduct a yearly or every 2 or 3 year walk-through observation/field visit. He may see things that might require some minor maintenance now, but left unattended, could have resulted in much more expensive repairs later. This is called Preventative Maintenance, which is typically a much less costly and considerably more comfortable method of home maintenance.

CCA:

There is one more thing to consider during the life of your home and your occupancy of it. People in America seem to move from one home to another on an average of every 7 years or so. Having your architect serve as an hourly consultant to you, to discuss with your appraiser the value of your home, should you decide to sell, can positively help boost the appraised value of your home, thereby possibly helping you have a more profitable sale. While there are no promises in today's economy, our personal experience is that appraisers typically want to know all they can about the home they are valuing, and who better to make them aware of valuable features than the people that designed it? This can potentially put tens of thousands of additional dollars into your pocket for a modest hourly rate.

end of process

If you need help with the design of your home project, please consider engaging the HOME ARCHITECTS ®. We are available 365/9AM-9PM EDT. We have a Global & National practice.

www/HomeArchitects.com Rand@HomeArchitects.com 1.828.269.9046