

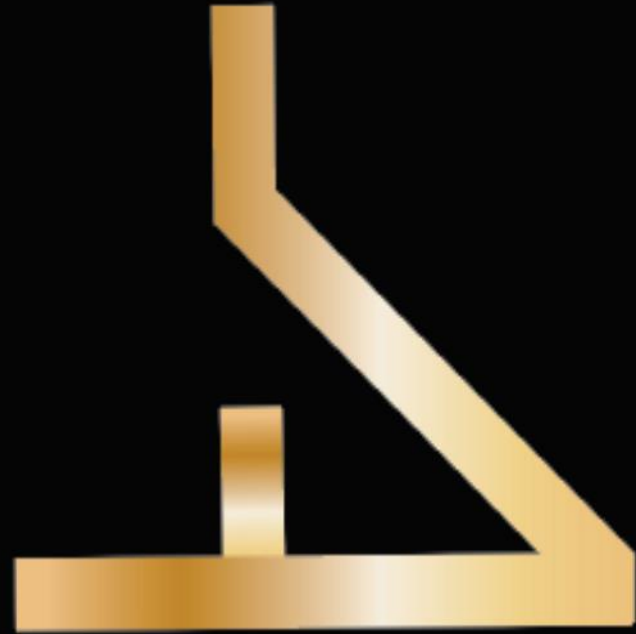
Design Process

Contact Us:

Phone: 416 - 949 - 1435

Website: www.4Designandconstruction.com

Email: [info@ 4Designandconstruction.com](mailto:info@4Designandconstruction.com)



4Design & construction

DESIGN PROCESS PHASES

PRE-DESIGN PHASES

Pre-design is the first step to a property development. In this phase the owner and the designer establish and analyze a set of conditions and research that will establish the framework and requirements for the building development. This phase including the following:

Site Analysis

Zoning Review

Programming

Preliminary Budgeting

DESIGN PHASES

There are four basic design phases, these design phases are the breakdown of how a designer defines their design services and their role in design the process regardless of the type or size of the project. The four phases of design is also a way for designers to break up the work they do into categories that make it easier to understand for the client. This phase including the following:

Conceptual Design

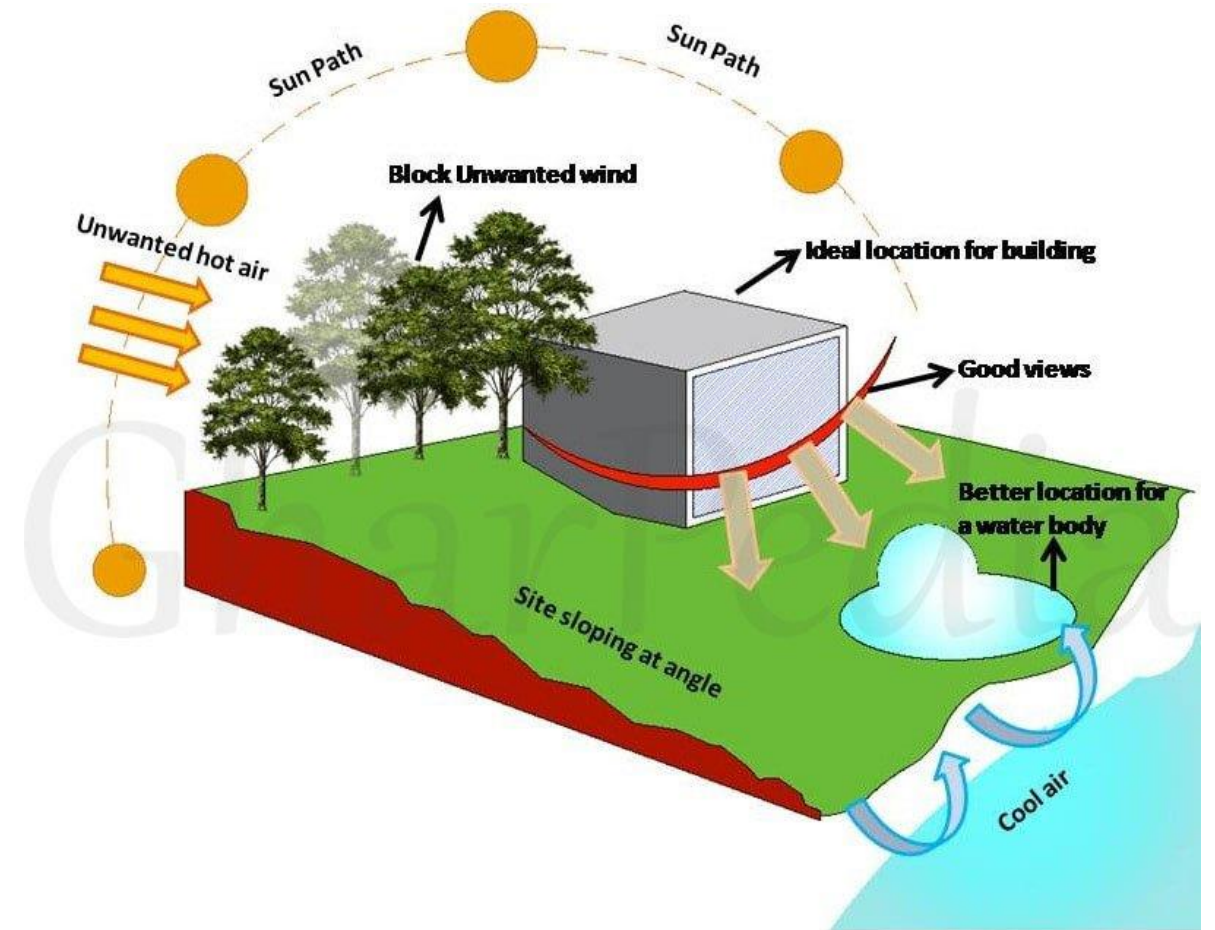
Schematic Design

Design Development

Construction Documents

PRE-DESIGN PHASE

- **Site analysis including ,but not limited to**
- Topography
- Vegetation / Tree / Shrubs
- Sun Path and Orientation
- Prevalent Wind
- Views
- Natural Habitat
- Neighboring Building
- Site Services



PRE-DESIGN PHASE

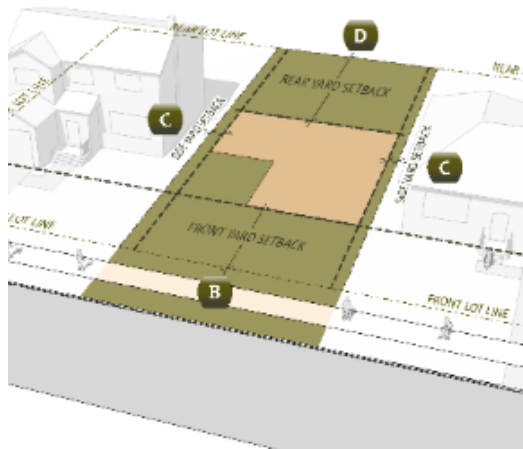
Zoning Review

Zoning: is a set of by-laws that outline that make the rules and limitation for a building on a property.

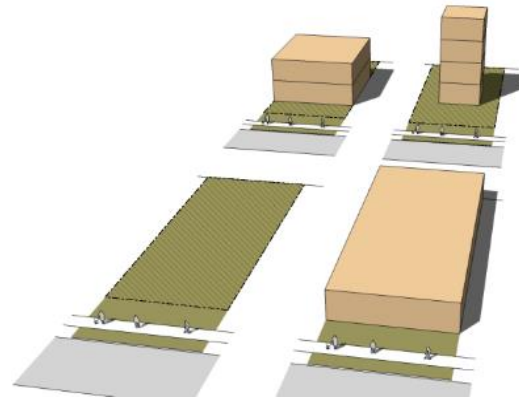
The zoning by-law limit the **location, size, shape, and use of buildings.**

A zoning analysis is an architectural study that help to determine the legal development rights of a property.

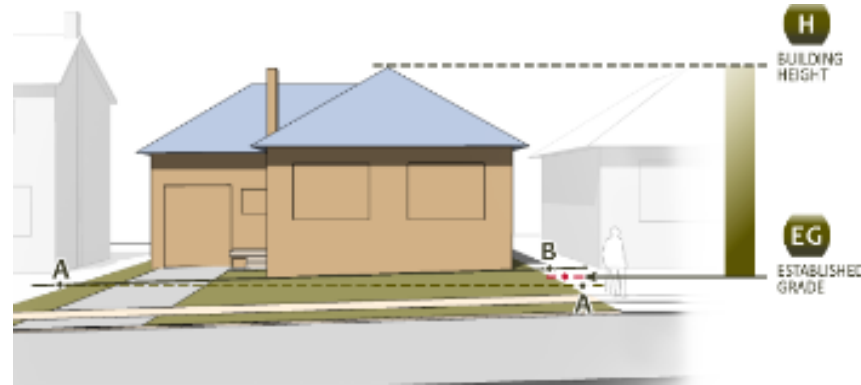
The property zoning analysis is a way to help know more information about the local zoning codes to help identify what use a building can have legally as well as its allowed **size, height, square footage**, and how that might affect the location on a given property, and various other zoning requirements.



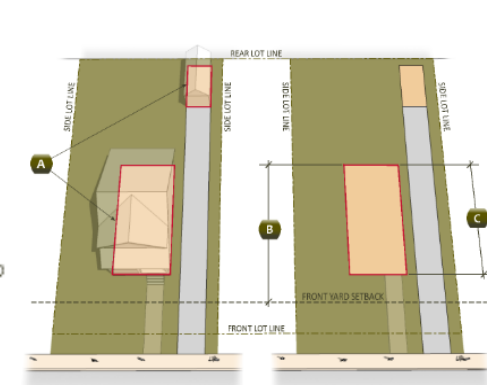
Setbacks



Floor Space Index



Building Height



Lot Coverage

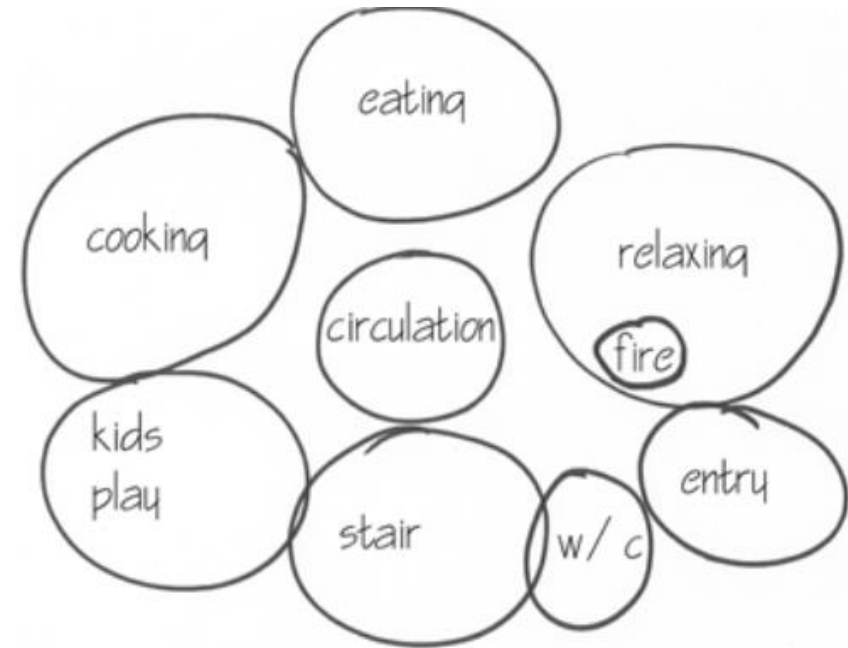
PRE-DESIGN PHASE

Programming

programming is a term used to determine the beginning of building design. Programming is the stage of client – designer meeting to discuss the client's needs and desires for their property including the building functional needs, as well as interior and exterior functional requirements including space sizes, contents, activities and relationships. The client will be able to give the design an idea of what they are looking for both aesthetically and functionally of their home, and answers some of the question the designer might have to better design the home such as, Time frame for occupying, indoor and outdoor space requirements, as well as any extra things that client may need.



Gathering of Information



Bubble Diagram

PRE-DESIGN PHASE

preliminary Budgeting

Square foot costs are usually the preferred method for preliminary construction budgets . The construction estimating industry usually uses the square foot approach to assist Architects and Owners to be able to determine the feasibility of a project. This method is usually used to determine the financial means of the homeowners.

Time and Cost: are the first two consideration when it comes to budgeting for building development. Early on the project these are difficult to determine.

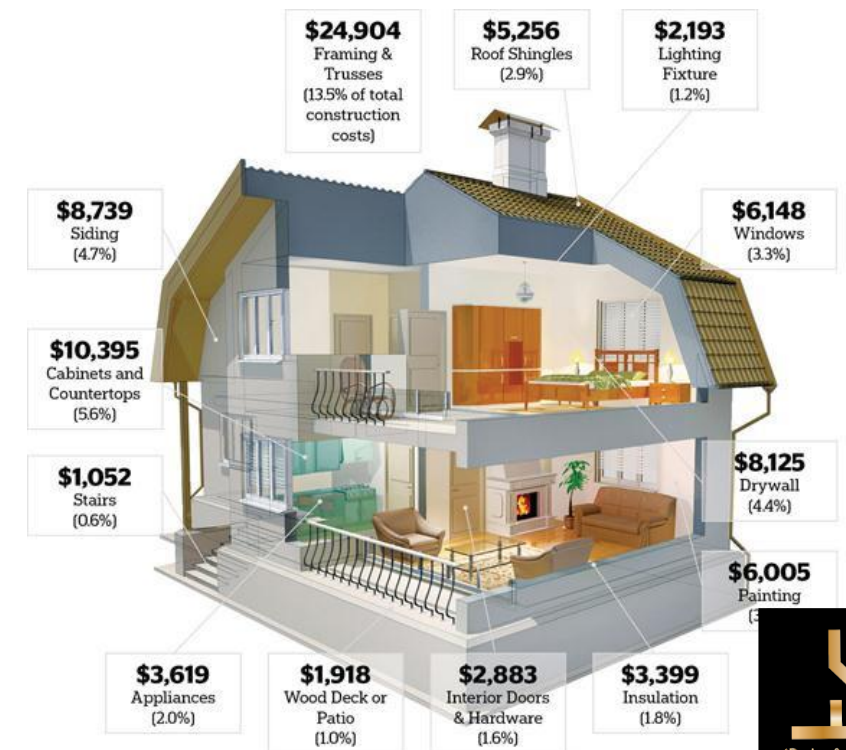
Typically a project is estimated based on similar prior projects with n allowing of adjustments for location, scope, construction time period, and other factors. The Pre-Design Architecture Phase can assist in determining the preliminary budgets more precisely.

The first step in estimating is doing some simple math to calculate the square footage of living space and special features like porches, decks or over-sized garages.

We calculate the areas based on the woutside framing dimensions and not the room sizes. It's important that we include the area of staircases, closets and even hidden utility .

The area for each floor should total the entire footprint of that level.

The unit price that is uses in our calculation will vary greatly depending on a number of things such as geographical location, style, level of detail and time of year that the home will be built.



DESIGN PHASES

Conceptual Design

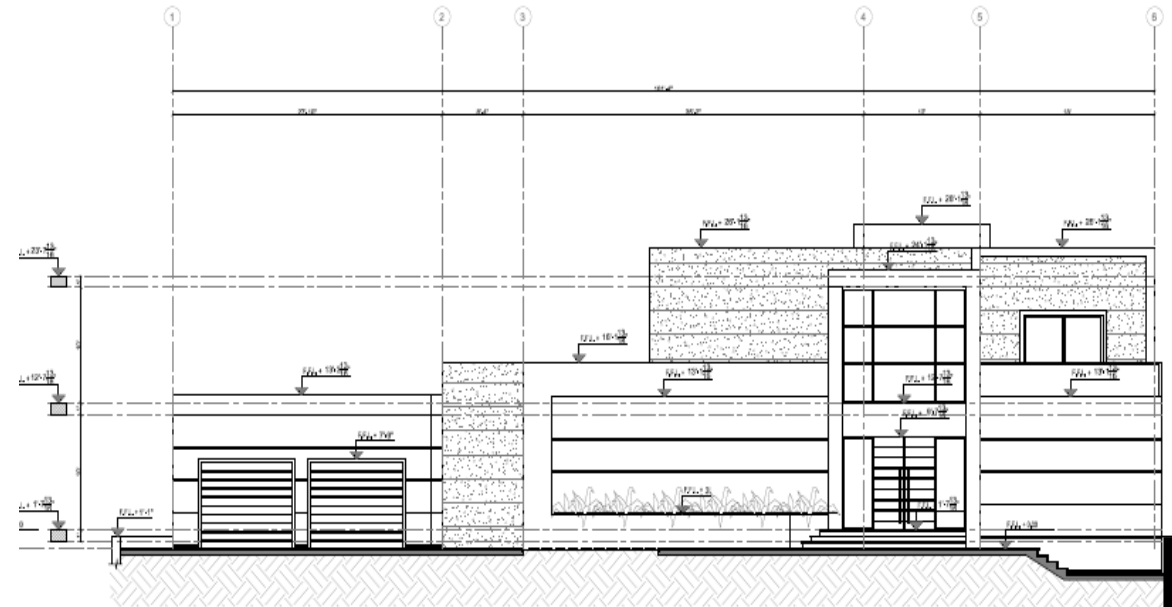
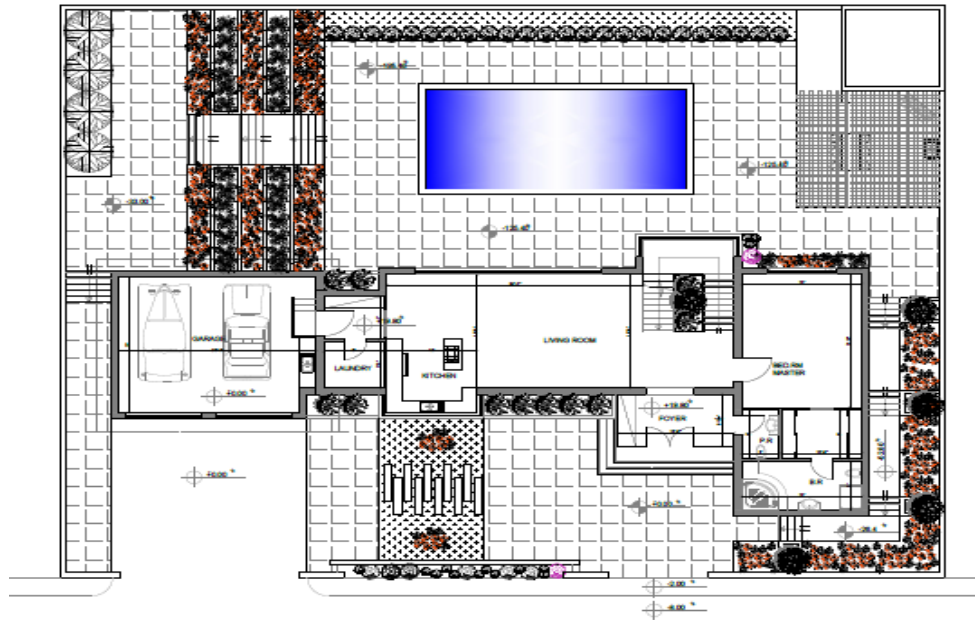
Conceptual design is the first phase of the multiphase design process in creating a building design. This phase has a great deal of sketching, meetings with the clients, and basic Conceptual sketches, rough physical models and or 3-dimension, these tools help to communicate the ideas and forms of the architecture.



DESIGN PHASES

Schematic Design

Is moving from the approved conceptual phase to architecture phase. During this architectural design phase, the information that have been gathered from field surveys, zoning review and the clients wish for their home. The development of the shape and size of the building help in creating two to three design options for Client's consideration.



DESIGN PHASES

Design Development

A transitional phase in which the design moves from the schematic phase to the contract document phase. In this phase, the designer and the consultants prepare drawings and other presentation documents to finalize the design concept and describe it in terms of architectural, electrical, mechanical, and structural systems.



DESIGN PHASES

Construction Documents

Construction Documents marks the end of the design process. The design of the building should be finalized, and the beginning of documenting the entire building and the site.

The drawings that were generated during the prior phases are now evolved from schematic and conceptual drawings to technical drawings. During this phase we quantify and defined the quality of the installed work.

Specifications are developed from an outline format to a 3-part MasterSpec format. Wall sections are developed into more details to define the different building assemblies.

Project components are looked at to the smallest detail.
These include:

Interior and exterior building materials and finishes.

Furniture and equipment selection and layouts.

Cabinetry and custom fabrications.

Lighting and technology designs.

Mechanical, electrical and plumbing systems.