# DESIGNER LEG-GO HOUSE COMMUNITIES

**Arik Ginzburg, Architect**

In our day and age, there is no room for custom made houses; Tailored houses are expensive and time consuming.

Imagine, instead, if you could just flip through our *DESIGNER LEG-GO HOUSE* catalogue or, better yet, walk into a show room, not unlike a car showroom you may be familiar with, when shopping for a car.

**LET'S GO BUY A HOUSE!**

Just like you would buy a car, a computer, or a suit, you should be able to compare

between various finished types of houses and find the one that works best for you, where you can compare the cost, functionality, aesthetics, and simply choose the house that suits your dream.

There is no need to pay the architect's fee (or part of it), spend the time it'll take the architect to design your house, produce the construction documents (all of which are necessary for the contractors to give you a quote), only to find out that you can't afford to build the type of house you created and fell in love with. And what if you don't like any of what your architect proposes? You will still need to pay the architect's fee for the amount of time and work he/she put in).

In order to save the time and money it takes to build a basement, once you've chosen the design that works best for you, the first step will be to create the basis for the house; We pour the concrete slab on your building site.

Only then can we move in and assemble on site the ready-made modular units according to the design you've chosen.

## *SOUND AND CLEVER ARCHITECTURAL DESIGN COMES FIRST!*

Our houses are not only better designed, but they also make for exciting architecture.

You will find one of our houses wrapped around a shady patio, where water trickles out of a rock, or another one of our houses, with an 18-foot-tall cathedral ceiling.

Spacious bedrooms are flooded with natural daylight, large windows providing plenty of ventilation, keeping the interior of the house cool in the summer and warm in the winter. We accomplish all of that using roughly half the electricity used in a traditionally built house.

We believe in employing the elements to improve our life rather than ignoring them by shutting the house up to the outside. We use the sun to heat the house in the winter and local breezes to cool the house down during the summer. With an eye to conservation, we also design our homes to collect rainwater, using a free resource to cut down a cost of water.

In our houses, one has the option of having 2 windows in each bedroom in order to create a cross ventilation—enabling a healthy flow of air.

All of our house's models' have smart, functional architectural layouts, using the natural resources of wind, sun, and rain and thoughtful interior circulation (the movement of people within the house), as well as plenty of storage space—all of which are standard features in any of our home prototypes.

*Designer LEG-GO Houses* are houses you can easily expand by adding more modules on to ready-made modules.

## *ENDLESS COMBINATIONS TO ASSEMBLE YOUR HOUSE*

### ORIGINALITY

We all want an original house of our own, but how can a modular house be completely different from the neighbors' modular house?

Here is the answer:  Even if it so happened that the house you design and build is an identical house to the one your next-door neighbor assembled (the same number of modules arranged in the same manner), the *Designer LEG-GO Houses* come with 4 different roof shapes and siding options in many colors, materials, or textures (natural stone, brick, wood, plaster, ceramic tiles, or aluminum siding).

You can also choose from a number of kitchen and bathroom layouts, built-in cabinets, various designs of wooden or metal stairs, and just about any sort of material floors: hardwood, parquet, carpet, marble, tile, etc.

## *NO 2 HOUSES LOOK THE SAME*

# WALLS, FLOORS & ROOFS

A house is made of vertical surfaces (walls), and of horizontal surfaces (floors and roof).

## WALLS

**Why do we build walls?**

The reason we build walls is to protect us from the elements as well as to provide us with privacy. Walls also provide us with thermal and acoustical insulation.

Interior partitions are used to create visual and acoustical separation between the bedrooms. During the hot summer months, walls keep the cool air inside and the hot air outside. During the cold winter months, walls keep the cold air outside and the warm, heated air inside.

However, do we really need solid, heavy, thick concrete, or concrete blocks to provide us with the comfort of our home and privacy? A simple 2mm. thick (thin)screen made from the material of your selection will provide you with all the privacy you need!

The shirt on our back provide us with privacy, but how thick does our shirt need to be? If we are keeping the rain out, our trench coat does that efficiently; and how thick does our trench coat need to be to work efficiently?

Yet walls are also supposed to provide us with thermal and acoustical protection.

Well, concrete blocks, cinder blocks or even poured in place, solid concrete walls, are the least appropriate building materials for neither providing us with protection from rain water, nor providing thermal and acoustical protection. Building with solid concrete or blocks is an overkill for shielding us from prying eyes` More than that: Both concrete and/or cinderblocks are porous materials, which allow moisture to affect them. That is the reason we seal the walls with impregnated plaster.

Now, wait a second. Wouldn't it make more sense to build a wall from a material which is completely impervious to water in the first place instead of building the walls from materials which let water inside, and then having to seal these materials?

By using multiple thin membranes for our walls, we free the inside of the wall up for insulation, wiring, pipes, etc. All of which are completely lacking in traditional construction. We use insulating "mattresses" within the cavity of the wall. We can cover those walls with any material of your selection.

## FLOORS AND ROOFS

**Why do we build floors and roof?**

Floors: The reason we have floors is to provide us with a living space; a platform which will support our own weight as well as objects such as furniture: beds, dining table, closets, etc.

Floors make it possible for children to spread out their toys and play with their friends. In a multi-storied building, floors provide us with a visual, thermal, structural, and acoustical separation between one level and another.

Roofs: Roofs protect the habitats from the elements: rainwater, snow, and hail as well as the scorching sun, torrential rain, and strong winds. Thanks to the roof, we can listen to music and carry-on conversations without any disturbances.

During the hot summer months, the roof keeps the cold air inside (either natural or cooled by air conditioning) and prevent the hot air outside from entering the building.

During the cold winter months, the roof keeps the cold air outside and the hot air inside. However, do we really need a solid, heavy, 20cm. thick slab of reinforced cinder, adding a great deal of "dead weight" to the building (which in turn becomes a structural liability) just to keep the rainwater out or to provide us with visual and acoustical separation and privacy?

Can't we find a lighter, ready-made material faster to construct, a less expensive method that is easy to assemble?

Whether building concrete frame and blocks walls (the traditional method) or using any other method, it is the structure which holds the building up. The structure is the most important component in any building, but it is one of the most expensive parts of the entire construction. Due to the immense weight of the structure, it is necessary to go deep into the ground, drill deep holes, and then pour the

foundations, made of reinforced concrete, necessary to carry the enormous weight of the building.

Prior to pouring the concrete for the floors and roof (all of the above is performed on the construction site, depending on weather conditions), it is necessary to construct forms to pour the concrete into, which are mostly made from wooden planks (incidentally, you pay for these forms, which the contractor will use again and again in his other projects).

Once the concrete hardens, the wooden planks of the forms need to be dismantled (more work). This method of construction is a very time consuming and expensive process.

**Residue and Leftover**: Normally when employing the traditional method, there is a lot of cutting and fitting boards, iron, and blocks, resulting in an abundance of useless leftovers—the pieces which fell off the saw. A complete waste!

We have put our trust in a method of construction which does not produce leftovers and does not leave any residue on the ground. All components arrive in the shop pre-cut, galvanized, drilled, and painted as needed, ready to be assembled!

Concrete and blocks are no different than a sponge as far as their impregnability to water. Unless treated, you are guaranteed to have floods. Therefore, once complete, the roof has to undergo laborious and expensive impregnation.

Now, how smart is it to build the roof from the one material that is the most likely to cause floods inside your house unless you hire another professional to seal your leaking roof by covering the roof with Neoprene sheathing? Wouldn’t it be smarter to cover the roof with aluminum, copper, zinc, or tiles which are mostly impervious to moisture on the first place?

# TWO METHODS OF CONSTRUCTION

## THE WET METHOD (THE 'TRADITIONAL METHOD') VS. THE DRY METHOD

### THE WET METHOD

**WHAT PARTS DOES IT HAVE & HOW IS IT CONSTRUCTED?**

First, we have to dig holes in the ground for the footings. The footing functions like underground or subterranean columns made of reinforced concrete.

The structural system works as a "cage." The concrete post & beam concept, building the entire structure of reinforced concrete—the frame, functions as one solid "cage."

Roofs: Rib Ceiling/Slab; thin, reinforced concrete "ribs" (mini beams) in between every 2 rows of concrete blocks.

Walls: Walls are normally made of cinder or concrete blocks, which are laid one on top of the other, than glued with mortar. The wet method requires that all work is done on the site.

Once the structure is finished, the walls are erected within the concrete frame.

And from then on, it's all about **coverings! Coverings! and more coverings!** Just slap them on with the help of adhesives, silicon and glue. The next consecutive phase, following construction of the footing, columns, beams, floors, and roof, involves the erection (and later on dismantling) of scaffolding in order to apply stucco/plaster onto the walls and ceilings. The plaster holds onto the wall with adhesives.

In order to seal the roof, large sheaths of neoprene are welded together or else your roof will leak. Floor tiles are glued to a baseboard, bathroom tiles are glued to the walls and ceiling.

## THE DRY METHOD

No covering!

We build cavity walls, floors, and roof.  The "coverings" **are** the house—the membranes from which the house is built, and vice versa.

Constructing all the planes (walls, floors, and roof) using light, thin membranes, we create the walls (interior and exterior), floors, and roof with “sandwich" system. The space between the 2 "slices of bread" is used to house thermal and acoustical insulation as well as running all electrical wiring, internet, water supply, pipes, sewage, and H.V.A.C.

### CHANGES, FUTURE EXPANSION AND ALTERATIONS

Let's say you are a young couple living happily in one of our houses and you decide to expand your family. Let's see what your choices are: Moving to a bigger house or hiring an architect to design the expansion, just like you hired an architect to design the original house.

## *HOW TO AVOID EXCEEDING YOUR BUDGET*

### PLANNING YOUR BUDGET

Budget * Estimations * Expenses

How can you manage your budget without exceeding it?

When employing the *Designer LEG-GO House's* method of construction, you can have an accurate estimate of the cost of construction; You can plan and keep control over the entire construction costs without going above budget!
Why? Because you calculate how many more modules you need, how much each module costs + the cost of labor for assembling the modules on site, and the cost of the infrastructure—the concrete slab that attaches to the site's infrastructure. The cost of our concept of architectural design makes it easy to expand your house without going over budget.

All modules come with built-in plumbing & electrical conduits.

# REPAIRS AND CHANGES ARE EASY AND INEXPENSIVE TO MAKE

## REPAIRS

Repairs in any of the LEG-GO Houses is performed by dismantling and unscrewing instead of cutting, gouging, and breaking. All plumbing and electrical are easily accessible.

## DISMANTLING vs. DEMOLITION

Each and every piece of each module can be taken apart by unscrewing bolts; there are no hammer blows, gauging concrete, or cutting walls and roofs with electric saws—all of which are inherent to houses which are constructed in the traditional method.

Concrete block walls and/or concrete floors and roof slabs, on the other hand, need cutting and breaking with heavy machinery first when being installed—when they need to be buried within the solid blocks and concrete. Thus, when one needs repairs, but also when making changes or alterations, being buried in solid concrete they are inaccessible. It takes gauging or cutting through plaster and solid blocks & concrete in order to repair leaks, to make changes, or add internet lines or more electrical sockets, etc. Then you need to repair the repairs! Filling the channels, the workmen cut for the pipes and wiring, then plastering over, and finally painting.

## NO AGING

**How are we going to 'stitch' the various house's components together?**

The shirt or dress we wear, our p.c., the washing machine, our car, our cellular phone –just about everything—all products are made of mass produced, factory manufactured parts. Eventually, all parts have to be connected together.

No one product is constituted from one homogeneous piece, and buildings are not any different.

The bond or the seam between 2 or more parts is always the "Achilles Heel" of any product and any structure; They tend to separate.

## Needle and thread staples welding cement

**Now what makes one building age gracefully while another building?**

The traditional way of construction relies on wet adhesives to connect one material to another this makes for a *rigid connection*.

The fantastic way of the designer leg-go houses relies on dry connections to connect one material to another. This makes for an *elastic connector*.

When the different materials expand or contracts due to changes in the weather or to the settling of the structure, the various components of the building tend to expand or when exposed to heat and contracts when exposed to low temperatures.

When the connection between the various parts is rigid it tends to tear away from each other causing cracks leaking and peeling.

On the other hand, when the connection is elastic the connectors function as hinges, and the parts are allowed to move freely under temperature change and the settling of the structure.

**THE DESIGNER LEG-GO HOUSES ARE FASTER TO CONSTRUCT AND THEREFORE, LESS EXPENSIVE TO BUILD**

## MASS PRODUCTION

The *DESIGNER LEG-GO HOUSES* are assembled from prefabricated, identical, modular units ('The Module').

Each module is, in turn, composed of an identical, mass-produced **kit** of inexpensive, off the shelf, factory made parts.

# No Need for Professional Labor

Buildings which are built in the traditional method of construction are built by a group of professionals, each of whom has a unique skill: Installing the iron rods embedded in reinforced concrete, requires employing workmen capable of comprehending structural documents, The plasterers, the pavers, and the workmen who are sealing the roof—whose work is more expensive, and they are not always available, which causes work to stall.

Ready-made houses, on the other hand, are constructed from a kit of parts; Erecting a house without the need for expensive professional workers, often hiring students on their summer jobs to do the work.

## MANUFACTURING VS CONSTRUCTING

**Off-site construction means no delays due to bad weather**

Bad weather is one of the major causes behind delays in the construction industry. Obviously, when people work indoors, there are no delays due to snowstorms or hail.

**Simultaneous Manufacturing Saves Time**

The 'Traditional Method' of construction requires a certain order of tasks; no phase of construction can begin before the basis for it is complete, which makes the whole process of construction a very slow process. Why slow? Because no professional (say, the paver) can do his work before another professional. Each and every worker needs to wait for the other to complete his job—for example the paver can't start paving before the plumber who lays the pipes under the floor finishes his work.

Another example: The construction of the cinder blocks can only begin after the skeleton of the structure (columns, beams, floors) is complete.

When one professional has to wait, this requires coordination and is one of the major causes for delays in construction.

When, on the other hand, the process involves manufacturing of components in various factories, it can be done simultaneously, hence saving a great deal of time.

In our *Designer LEG-GO Houses* all the parts that compose each module (the kit) are mass produced in various factories. These parts are then put together in the shop to create 'the module.'

Once complete, the modules are shipped to the site where the house is being put together.

Unlike the traditional method, which requires all work is done on the construction site, digging holes in the ground while having to cope with floods, pouring concrete in the rain, building walls in the heat of summer, blinding the worker trying to read the blueprints, or plastering while standing on a scaffolding in the scorching heat—it's not hard to see then why *Designer LEG-GO Houses* will be less expensive to build. Employing the dry method, the only labor done outdoors involves shipping the modular units to the site, installing them according to plans, and then connecting them to the existing modules and to one another, anchoring it to the ground or the modules below—no delays due to bad weather!

**CUT YOUR ELECTRICAL BILLS!**

# THERMAL INSULATION

All surfaces in the LEG-GO houses are hollow walls, floors, and ceilings. The multi layers, cavity roofs, walls, and floors all provide the space needed for state of the art thermal & acoustical insulation materials within.

Insulated glass is in all windows, guaranteeing low electrical bills.

## PRECISION AND ACCURACY

'Factory made' products implies accuracy, precision, and uniformity of quality, such as one normally finds in cars, computers, smartphones, washing machines—literally everything; All parts are joined when clicked together, there is no gluing or plastering over cracks.

***EACH HOUSE IS A BEAUTIFUL WORK OF ART***

# LEG-GO HOUSE COMMUNITY

## Diversified Unity- THE MODULAR LANGUAGE

**Creating a Sense of Community Through Architecture**

Harmony results when a whole is made of parts relating to each other and each part relating to the whole. A repeated module will result in a rhythm going through the neighborhood; a beautiful collage of forms, colors, textures, and shadows.

There are no two houses that look the same yet there are no McMansions behind the walls. We tried to avoid creating an arbitrary collection of houses turning their backs on each other. We endeavor to design homes which talk to each other—a singular and visual language.

**THE VILLAGE—A SENSE OF BELONGING**

It all starts with the module…

Each house is very different from the other: We offer different designs as well as different styles, whether modern or more traditional, each one with almost endless options for roof shapes, materials, and colors.

Our houses provide you with smart architectural solutions, they are a work of beauty, they are cost effective, and we took into account growing families, offering simple and affordable options to grow your home in step with your family.