

# LUXURY FARM HOUSES



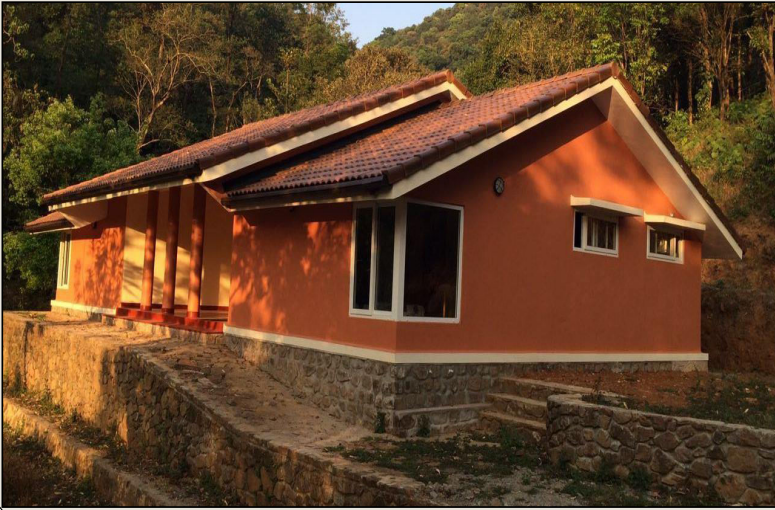
# MYSORE FARM HOUSE



## LUXURY FARM HOUSES



## WAYNAD FARM HOUSE



# IIT JAMMU



# HIMALAYA DRUGS – BANGALORE

CONSTRUCTION OF THEIR VARIOUS FACILITIES WITH QUIKBUILD SYSTEM

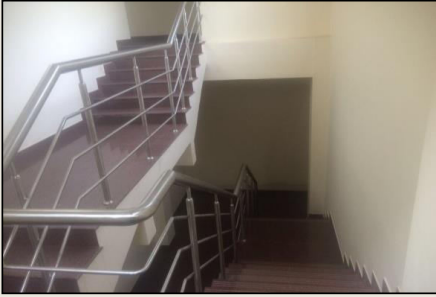
CANTEEN CUM STORE G+1 BUILDING



STAIRCASE



MEZZANINE OFFICE – COLUMNS,BEAMS,ROOF PANEL& WALL PANELS



BABY CRECHE



**PREFAB WAREHOUSE/ PRODUCTION UNIT –DEVANAHALLI, BANGALORE**



**MARRIAGE HALL - NASHIK**

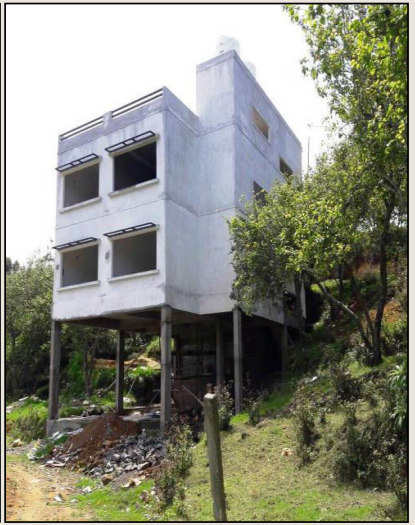
**VEGA AUTO STEEL - RUDRAPUR**



# QB SHIMLA WORKERS QUARTERS



**UNDER GROUND SUMP 35000LTRS CAPACITY, LOCATION: KODAIKANNAL**



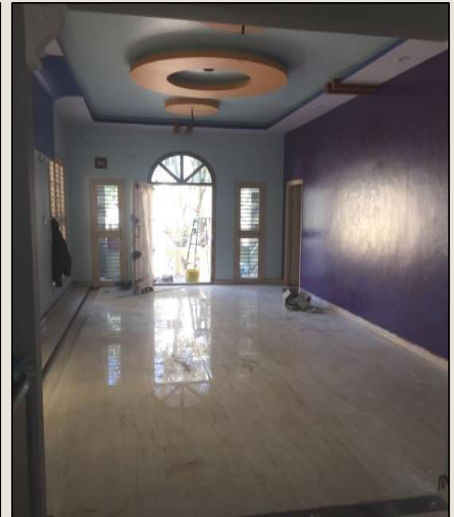
**VEMBAR CHURCH - CHENNAI**



**JEEVODAYA HOSPITAL**



**JP NAGAR, ABOVE EXISTING BUILDING**



# QUIKBUILD RESIDENTIAL COMPLETED PROJECTS

GUEST HOUSE AT KRISHNAPATNAM



OLD AGE HOMES AT COIMBATORE



G+2 HOUSE AT PERMBALUR IN TN



G+1 QB HOUSE AT HYDERABAD



G+2 HOUSE AT MUMBAI



HOUSE AT CHENNAI



# QUIKBUILD RESIDENTIAL COMPLETED PROJECTS



# VILLA PROJECTS



## G+2 RAILWAY QUARTERS AT ORISSA

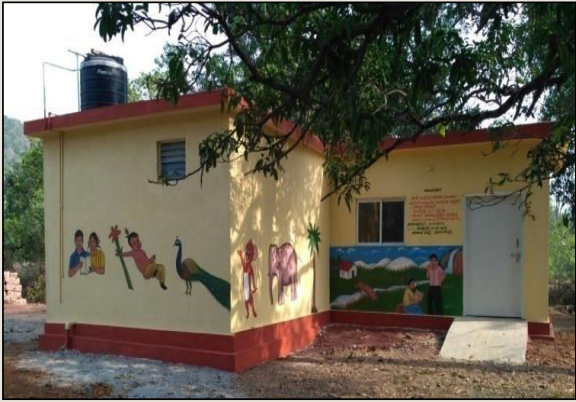


TAMILNADU POLICE HOUSING – G + 2

## MASS HOUSING PROJECTS



## ANGANWADIS IN KARNATAKA



## QB HOUSE IN WEST AFRICA



# STAGES OF CONSTRUCTION

LAYOUT MARKING



EXCAVATION WORK



PLINTH BEAM



WALL PANEL ERECTION



ROOF PANEL ERECTION



ROOF CENTERING



ROOF CONCRETING



## INSIDE & OUTSIDE PLASTERING



## FINISHING WORKS - PAINTING



## TECHNOLOGY EXPLAINED

### **WHO INVENTED THE QUIKBUILD CONSTRUCTION SYSTEM?**

The QuikBuild construction system was developed in Italy for their construction industry more than 30 years ago. It has now been in use in many countries of Europe, Middle East, China and Korea.

### **WHAT ARE THE USES OF THE QUIKBUILD PANEL?**

The QUIKBUILD Panels can be used for 1) free standing G+2 structures 2) internal walls / boundary walls.

It may be used in place of brick walls, metal framed walls, and masonry block walls or in place of pre-cast panels. The QUIKBUILD construction system is used as walls and for floor systems, ceilings including roofing structure.

It is certified by IIT-Chennai for use up to G+2 structures in India. In Europe and other countries up to G+5 structures are built.

### **HOW DOES THE QUIKBUILD CONSTRUCTION SYSTEM COMPARE TO OTHER BUILDING SYSTEMS?**

QUIKBUILD Construction System is a complete replacement for traditional RCC construction. It can replace traditional building techniques and satisfy any physical and structural requirements. The use of QUIKBUILD panels can reduce up to 80% of the total weight of construction compared with traditional RCC methods.

The main benefits associated to the QUIKBUILD construction system are cost effective in time & labour and most importantly energy efficient.

The max savings over traditional RCC construction is 15% of Total Cost. (on material about 5% and about 10% on labour).

### **WHAT ARE THE MAIN BENEFITS OF THE QUIKBUILD CONSTRUCTION SYSTEM?**

**Structural Integrity:** Concrete and steel remains the best materials for strength and resistance to the elements. Such materials are enhanced by exterior walls made with QUIKBUILD Panel and thus there are no joints to crack and no weak spots that eventually become vulnerable to water intrusion

**Thermal and Sound Insulation:** Heat and cold transmission is reduced by 50% through the use of QUIKBUILD Panel and its superior sound insulation keeps each living space a quiet zone.

**Time and Labour Savings:** QUIKBUILD Panels goes up so quickly, precisely and easily that fewer masons, electricians, plumbers, and drywall specialists are needed to get the job done

**Environmentally Intelligent:** QUIKBUILD Panel is made from galvanized steel while the polystyrene core contains no ozone damaging CFCs either in the manufacturing process or the end product; it is also recyclable

**Lower Utility Bills:** Structures built with QUIKBUILD panel have experienced up to 50% savings in electricity consumption, made possible by the use of smaller and more efficient heating and air conditioning systems

**Hurricane and Earthquake Protection:** There are many documented instances where structures built with QUIKBUILD panel have survived the severest storms and other natural disasters. Wind loads of 200+ Kmph can be handled by these panels.

## STANDARDS & TESTING

### **WHAT STANDARDS DO THE QUIKBUILD CONSTRUCTION SYSTEM COMPLY WITH?**

In India, the QUIKBUILD Construction System will meet the NBC 2005 (or IS Code). Please contact us to obtain the latest test appraisal.

### **IS THE QUIKBUILD PANEL STRUCTURE EARTHQUAKE RESISTANT?**

A two-storey QUIKBUILD construction system research complex jointly funded by the National Science Foundation, Southern California Edison, Inc., and the University of California withstood California's worst earthquake in forty years was struck twice a (6.5) and (6.9) Richter Scale. According to Dr. Philippe Cohen who resides at the site in the Mojave Desert, the area at one point was subjected to a continuous shake lasting over a full minute. The structure went through the quakes with zero structural effects. The above earthquake was later found to be 7.6 on the Richter Scale.

### **IS THE QUIKBUILD PANEL FIRE RESISTANT?**

A structure built with QUIKBUILD Panel is non-combustible and has a minimum 2-hour fire rating and a higher rating can easily be attained. The QUIKBUILD panel contains a modified version of the EPS that is fire retardant. This ensures that it does not burn but rather melts and extinguishes the flame. The fire rating also increases with greater thickness of concrete/plaster applied to each side.

### **WHAT IS THE WIND LOAD CAPACITY OF QUIKBUILD PANEL?**

A test conducted in Miami Florida in 1994 (in accordance with Dade County Building Code Compliance Office Protocols PA 201-94, PA 202-94 and PA 203-94), installed three typical QUIKBUILD Panels 1200mm wide and 3040mm high with 40mm of shotcrete on each face were installed vertically, side-by-side, on a concrete slab, several cm in front of a rigid backup wall with space between the panels and the backup wall. These panels were tested per static-wind load test (PA202-94 manner of testing).

Summary of test: No failures occurred to the specimens nor their fastenings nor anchorage. The products described in this report comply with SFBC Sections 2309 and 2315. The panels tested at 615 kgf/ square meters. Ft. pressure, which represents over 400 Km/h-wind factor.

### **WHAT ARE THE LOAD BEARING CAPABILITIES OF QUIKBUILD STRUCTURE?**

The finished panels are very strong due to the high tensile strength.

Wall panels can hold 350kN/m i.e. every 1 m width panel can hold 35,000 kg of weight! Roof panels can hold 10kN/m<sup>2</sup> – the IS code for this only requires 5kn/m<sup>2</sup> !

### **IS THE E.P.S. CORE WATERPROOF?**

The polystyrene core is water-resistant. The water absorption is less than 2.5%. It should be noted that the E.P.S. used in QUIKBUILD Panels is an inert, organic material that provides no nutritive value to plants, animals, or microorganisms.

In addition, the polystyrene will not rot and is highly resistant to mildew. Aging has no effect upon the performance of the polystyrene. E.P.S. is able to withstand the abuse of temperature cycling i.e. essentially assuring long term performance.

## **INSTALLATION**

### **HOW IS THE QUIKBUILD STRUCTURE SECURED INTO THE SLAB?**

Firstly, the rebar is embedded within the concrete slab. The panel is then placed over the rebar, through the open space between the polystyrene core and the wire mesh. Once set, the rebar is fastened directly to the wire mesh by hand with tie wire. The rebar should be installed at a straight perpendicular angle so that it will fit easily into the cavity between the polystyrene and the wire mesh.

It is important to make sure the rebar is completely exposed so it becomes monolithically enclosed with the shotcrete or cement application. If the building department or engineer requires additional tie downs, the polystyrene core can be removed from the base of the panel. The panel is then set in place over the required tie-down and cemented in place. Another option for placing the rebar in the concrete slab is to drill the concrete slab and pour epoxy in the cavity placing the rebar within its confines. The typical spacing of the rebar is 600mm.

### **HOW IS A BOND BEAM C LINTEL MADE WITH QUIKBUILD STRUCTURE?**

This is one of the biggest advantages of the QUIKBUILD Construction System. A bond beam-lintel is used to create large openings, or to strengthen large areas of ceiling or to help support roof structures. By simply adding a couple of re-bars at the bottom of the lintels most of the bigger openings can be accommodated.

In some cases removing the polystyrene core, or part of it and installing rebar creates the bond beam. The best method for removing the polystyrene core is torch-burning; it takes only a matter of minutes. The polystyrene will not burn it will shrink & melt leaving a cavity for re-bars and concrete.

### **HOW ARE THE ELECTRICAL AND PLUMBING COMPONENTS INSTALLED?**

The electrical and plumbing components are installed by removing a part of polystyrene core to create a cavity that electrical conduit or plumbing piping. Approximately 20mm of the polystyrene off the wire mesh is removed. If a greater opening is required, it can be removed with a small keyhole saw or butane torch.

The polystyrene will not burn it will shrink or melt leaving a cavity. The electrical or plumbing is then installed into the cavity.

### **HOW ARE WINDOWS AND DOORS INSTALLED?**

The window and door openings may be cut out with before or after wall installation, by the use of three primary tools - a set of bolt cutters or pneumatic cutter, and a small hand saw to remove the polystyrene.

For the door joints small areas of Polystyrene core is melted at various places and concrete is filled in with concrete/plaster so that screws can be used to attach frame.

For windows you can melt the EPS along all edges of the opening (i.e. leave the wire mesh as-is) and then fill in with plaster. Any type of window (wood / aluminum / UPVC) can be attached by drill holes and inserting screws. If needed clamps can be pre-installed in the plaster behind the wiremesh.

### **HOW DO YOU BUILD CURVED OR RADIUS WALLS WITH QUIKBUILD PANEL?**

Curved and radius walls can be installed by cutting the wires on one side of the panel. This will allow the panel to bend to the desired shape or radius. It is important not to cut through the heavier truss wire so that wall strength and integrity remain intact.

### **HOW IS THE PLASTER/CONCRETE MIX APPLIED TO THE QUIKBUILD PANEL?**

For the PLASTERING on the walls we apply two layers - a 15mm layer of concrete with baby chips up to the wire-mesh layer and then a 10mm layer of sand/cement plaster on top of that for a smooth finish.

For the CONCRETING of the roof we pour 2-3 inches of standard roof concrete.

# **QUIKBUILD Construction System and Environment.**

## **COMMONLY USED CONSTRUCTION MATERIALS AND ITS DISADVANTAGES.**

**RED BRICKS** :High environmental issues

1. Deforestation
2. Depletion of Top fertile soil leading to barren lands and later to high soil Erosion during rain.
3. Baking of bricks leads Air pollution . There is a substantial increase in SOX, NOX etc. content .

Use of good quality agriculture soil in large quantities for brick making is also a grave area of concern. In geographical regions having thin topsoil, this result in reduction in the productivity of land and in extreme cases the land does not remain fit for agriculture use.

**A BRICK CONSTRUCTION IS SUBJECTED TO FAILURES IN A HIGH SESIMIC ZONE**

**QUIKBUILD CONSTRUCTION SYSTEM COMPLETELY REPLACES AND ELIMINATES THE REQUIREMENT OF BRICKS. QUIKBUILD BEING A MONOLITHIC & LIGHTWEIGHT IS HIGHLY RESISTANT TO EARTHQUAKE.**

## Benefits of Quikbuild product

### Time saving

50% time is saved as compared to conventional method. Example, G+2 conventional will take at least four and half to five months to complete the shell. Whereas, with Quikbuild, it will take only about two and half months to complete the shell work from foundation.

### Increased Carpet Area

Because of our thin walls as compared to conventional, you will be able to save about 4-5% of the carpet area. Hence, for every Rs. 10lakhs you spend, you will get a benefit of Rs. 40,000

### Money saving

Nearly 50% reduction in both labour and water requirement. Also when the rooms are large, you will be able to save more as the number of panels required will be less because of lesser number of partition walls

### Stronger and Lighter

Quikbuild structure will be stronger and lighter as compared to RCC. The panels are easy to handle because of light weight. And our product is the only suitable material in India for add on structures

### Innovative Technology

This is a modern foreign technology. We brought it to India. It is being used in countries like Austria, US, China, Gulf etc. from many years, mostly for premium projects, villas etc.

## Benefits of Quikbuild product cont..

### Thermal Insulation

The EPS material which is used as filler in the panel is an energy saving material and hence can save the Air Conditioning charges. With Quikbuild, 1 and 1/2 tons AC will be sufficient where 2 tons AC is required with conventional method.

### No false ceiling

As there wont be any columns and beams in a Quikbuild structure, you do not require false ceiling to be done. This also gives a better look and finish

### Galvanised steel

We use high tensile galvanized steel from TATA steel Limited

### Fire resistant

After plastering/shot creating both sides of the panel, 2hours fire resistance is tested. Also, EPS material inside walls will not allow the fire to expand and in turn it melts and helps to extinguish the fire

### Earthquake resistant

As these meshes are interconnected, it act as single unit and does not allow any thing to break. It has been tested at 7.5 Richter scale which is the highest earthquake recorded till now.

## Benefits of Quikbuild product cont..

### Acoustically better walls

Walls will be acoustic up to 50dB attenuation

### Moisture free walls

Since EPS is resistant to moisture, walls will not have seepages. Hence the painting doesn't get damaged and thus lasts longer

### Lower maintenance cost

One time plaster, no seepage of water in the wall, long lasting paints and termite proof walls help reduce the maintenance costs

### Longer life

With this Quikbuild technology, structure lasts for more than 100years

### Design Flexibility

Any shape can be easily constructed using Quikbuild panels whereas it will be difficult using conventional method

## Capabilities and Execution:

### Design

Highly qualified engineering team with experience in various industrial and civil construction projects in India and abroad

### Production

Manufacturing plants in Bangalore, Chennai and Mumbai with capacity of 5000 sq.mt per day with future expansions in progress

### Installation

Experienced erection supervisors and crews that can provide training and guidance to subcontractors

### Management

Corporate structure with a team of qualified and competent managers to handle any size of projects. Long experience in dealing with Indian work conditions

### Service and Support

Branches and offices in various cities across India that will provide timely and responsive service