



SEAS Homes

Sustainable Eco-friendly Aesthetic & Smart
Housing Solutions for a Better Future





DREAM



DESIGN



BUILD



RCC Brick Construction Vs SEAS Housing Construction

Construction Time

RCC Brick Construction

<p>Minimum 6 to 7 months required for G+1 type building Unavailability of resources and materials is common issue causing delay in construction time Un-trained workmen handle the site resulting in delay in overall time</p>	<p>Typical G+1 construction can be constructed within 2 to 3 months All material and resources are made available on site before start of construction Building work is done by skilled technicians and Computerised tracking of site progress assure the fast delivery</p>
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LGSF housing Construction

FASTER IS THE NEXT GENERATION



LIFT UP THE QUALITY

SEAS housing Construction

- All light gauge steel are manufactured in FRAMECAD machine which is completely run by program. So high precision is maintained.
- Structure is designed using high end **software and using British and American design standards.**
- Site builders are **skilled and trained technicians**
- The steel, materials, fasteners, finishes, connections used are manufactured by MNC companies like Saint Gobain, Hilti, Everest etc. And quality certificates also could be provided
- All metals are zinc aluminium coated and so they are non-corrosive



RCC Brick Construction

- Quality of concrete depends on quantity of cement, water, and aggregates. Slight variation changes the strength
- If Mixing is not done properly or by non qualified workman then, air voids develops resulting in early cracks, vibration, deterioration issues
- Workmanship is getting poor day by day And **they build your dream home**
- Bricks are non uniform in quality resulting in affecting quality of wall
- Uneven brick wall resulting in more use of cement plaster to cover unevenness Which increases the cost.
- Use of non coated steel causes corrosion and reduces building life span





Loads and Strength

LIGHTER THE BETTER

RCC Brick Construction

All columns and beams are very bulky causing problem in interiors.

Lowest Load to weight ratio: With the higher self weight it carries the loads coming on it

480kg/sqm dead load

RCC brick construction is very heavy

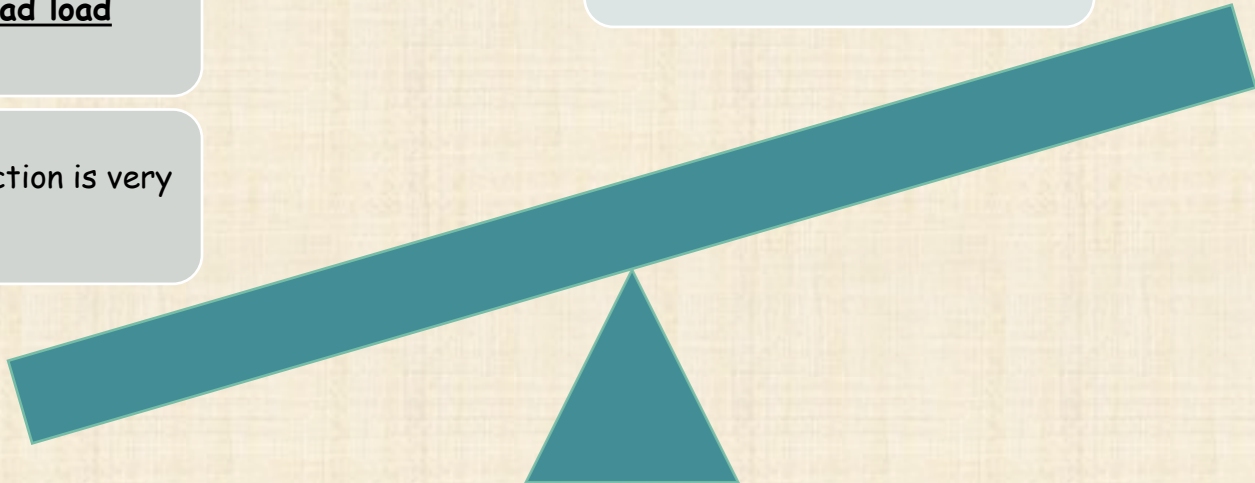
SEAS housing Construction

No bulky beam or column in building so you have freedom for interior.

Highest Load to weight ratio: Carries the same load with much lesser self weight

59.4kg/sqm dead load

LGSF is around 9-10 time lighter than RCC building.





Performance

ALWAYS GOES UP!



RCC Brick Construction

- **Massive heat Sink**; Also takes 5-6 hours to lose attained heat
- **Electric sources** are used to **cool** down the temperatures
- **35 to 38 Db. sound insulation** can be achieved. The concrete is sound **reflector** and **Echoes** are common issues
- **Fire resistance of building is around 1 hour** depending on arrangements
- **Leakage and moisture** are common issues causing **dampness, smelly rooms, fungus, furniture damage** and many more.
- Most of the buildings are **not air tight** causing heat loss
- In fire case, **above 95 degrees, cement paste shrinks**, aggregates expands and overall members expands



SEAS housing Construction

- Thermal resistance is **11 times better** as covered with **gypsum boards** which are **good thermal insulators**.
- **Rock wool** is used to control heat. This helps building remain **cool in summer** and **warm in winter**.
- **60% electricity** can be saved.
- **Sound insulation up to 45 to 60 Db.**
- Usually there would be **No leakages**. But in such a case **Repairing** is **affordable easy and fast**
- **Moisture barriers or tight house wraps** are used. This makes building air tight and heat loss is least
- **1 -2 hour fire rating** can be achieved so that your family can **escape safely** and fire spread is controlled



Foundation & Structure

THUMBS UP FOR
HOUSE EXTENSION

RCC Brick Construction

- Due to **heavy loads**, **foundations** of such buildings are **deep**. And if soil is not good then **deep excavation** has to be done
- Demolition is difficult and costlier
- Salvage value is very much less
- RCC Construction is a frame structure so load transfer may not be even
- No special provisions are provided in case of Earthquake and High wind speeds for the small residential projects



SEAS housing Construction

- LGSF house is lighter, so foundation requirement is minimal. **No need for deep excavation**
- Dismantling is fast and easy
- The same material can be re-used. So **60%** cost can be recovered
- LGSF Construction is load bearing so it makes sure of even Load distribution
- However your structure size and type is, special provisions for Winds and Earthquakes are provided





Finishes & Services

BECAUSE IT'S SATISFYING



RCC Brick Construction

- Any kind of finishes can be used. But requires lot of plaster for uneven brick walls
- Normally attending smooth finish with normal plaster and putti is difficult
- Due to uneven slab surface lot of sand may be needed to be used to level it
- External cladding can be difficult if surface is not in level
- Electric and Plumbing services need slits and grooves in the walls which increases the labour costs



SEAS housing Construction

- Wall Surface is very smooth because of factory made panels and doesn't require as such plasters to level it
- As slab has flat surface any kind of cladding like wooden, ceramics, cement tiles, OSB3, gypsum boards can be used
- External cladding has multiple option as per requirement. Like stone, cement planks, corrugated steel, EPS panels etc.
- Electric and plumbing conduits are available and no need to make separate groves. Labour charges reduces. Repairing is also easy.



Construction Methods & Site handling

POSITIVE CONSTRUCTION

RCC Brick Construction

- Often RCC brick construction site is not tidy. Because of **use of water, mud, broken particles of bricks, aggregates, nells and steel**
- The site need to be maintained on time.
- **Management** of site is usually **compromised**. This cause **unnecessary delay** and laborious job for workers.
- Mostly for RCC construction minimum 5-6 labours are required
- Normally for brick wall, **2labours complete 1sqm work in 1.5 to 2hour**

SEAS housing Construction

- **Construction** is completely **clean** and **dry**
- **Technicians will be in safety kits** like jackets, helmets, gloves and shoes.
- Site **hygiene & safety** is utmost **priority**.
- Site progress is tracked using software which increases the efficiency.
- 3 technicians would be enough to handle G+1 site. **2 technicians can complete 1sq.m of work in 1hour.**
- All construction work is done by modern **machines** and heavy duty tools which ensures **Safety**



Is it Eco - Friendly?

It is Eco - Friendly

RCC Brick Construction

SEAS housing Construction

- Production of **cement emits more CO2** compare to production of steel.
- On-site concrete mixing creates CO2 due to hydration process.
- Overall wastage of RCC brick construction is very huge. On a daily basis waste is generated and disposal of such waste is big concern.
- 16.8 lit of water used for per Sq.m wall. So for 200 Sq.m of wall, you waste 3360 lit of water.
- All material can not be recycled after demolition.

- Steel manufacturing produces lesser amount of CO2.
- On site production of CO2 is zero.
- Overall wastage is close to zero as all material can be recycled.
- Zero water consumption for construction.
- 60% of material after demolition can be recycled. So you can have returns on recycled materials of at least 20-30%
- Due to less consumption of electricity, these house generate least green gases.
- Material used are green certified by various agencies in India and world.

Eco-Friendly

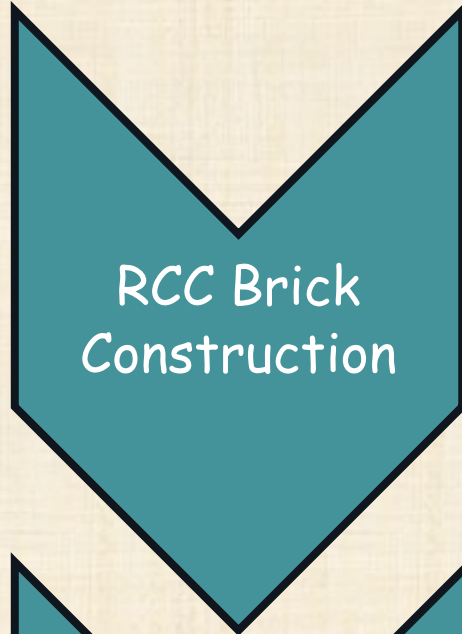
"YES" TO ECO - FRIENDLY





Aesthetics and Affordability

BEAUTY AND THE MONEY BOTH MATTER



- Overall construction cost is around **1800 INR/sqft to 2500INR/sqft**
- **Returns** on investment is **lesser** as lot of money needs to be invested in energy consumption, maintenance etc.
- You need to put lot of extra money to bring aesthetic aspect in house.
- Sloping roof construction is tedious job.
- False Ceiling, thermal insulations, moisture barrier has to be provided separately. Cost in not included in construction cost

- Overall construction cost is around **1500 INR/sqft to 1800 INR/sqft.**
- **Returns** on investment is **more** as 60% electricity bill will be cut down. Also building maintenance is affordable.
- **Sloping roof** is the key element of these house which enhance the beauty of home. Also many **light weight** design **claddings** can be used in affordable price due to its light weight and **easy assembly** methods.
- False ceiling, thermal insulations, moisture barrier is included in the costing.
- Big savings on foundation.



Cons of SEAS HOMES

1. Investment is higher on first day. Span of payment is shorter
2. Nailing and screwing in the wall has to be done in specific manner
3. Planned loads need to be provided in planning phase only
4. Higher unplanned loads require specific provisions to be done while erection and this may yield to increase in the cost
5. Change in plans during construction is difficult and may hamper the structural stability
6. Heavy impact loads on walls shall be avoided in case of the Fibre cement Boards
7. Only roofing with LGSF on the existing RCC structure would not be advised in this system due to inaccuracy in the structural construction below



In Short...!

Parameter	RCC Brick Building	LGSF Building
Construction Time	Time consuming	30% to 40% faster
Construction method	Wet Construction	Dry Construction
Load to Weight ratio	Low	Very high
Material Quality	Depends on workmanship	Factory made so perfect
Sound Insulation	35Db to 40Db	40Db to 55Db
Fire Resistance	Less than 1 hour	1 hour to 2 hour
Moisture and air diffusion	Common issue	Designed to control it
Foundation	Deep and heavy	Shallow and basic
Future Expansion	Difficult due to structural restrains	Flexible and easy due to light weight
Wall finish	Smooth finish is difficult.	100% smooth and flat
Water usage	21 lit/sqm	Zero
Labour force	2 labour = 1sqm/hr	2 technician = 1.5 sqm/hr
Cost	1800INR to 2500INR /sqft	1500 to 1800 INR/sqft



FAQs

1. Where Can we Use LGSF technology?

Ans. - LGSF can be used almost in every sector: Residential, Hotels, Resorts, Farm Houses, Villas, Important Buildings such as hospitals and educational institutes, commercial projects, etc.. Also for portable houses, roadside cafes, shops and offices.

2. What is mean by dry construction?

Ans. - Zero water consumption during construction. Site is dust, mud and water free. We build in tidy atmosphere.

3. How fast can we build the house?

Ans. - 1000 Sq.ft building can be built in 1 month. It is 30 to 40% faster than RCC.

4. Why it is called as light construction?

Ans. - Total weight of LGSF house system can be 10 times lesser than RCC. So this construction is light.

5. What type of foundation is required for this?

Ans. - For LGSF house, shallow footing is sufficient as load is not heavy.



FAQs

6. Can we use this for rooftop extension?

Ans. - This technology is extensively used for rooftop extension. Because of light weight and high resistance to wind and earthquake. Moreover this can be used for overall house extensions.

7. Does this steel rust?

Ans. - The steel is galvanised and zinc coated. So it will never corrode like normal steel.

8. Is steel safe in summer and lightening?

Ans. - This steel provide direct passage to electricity to ground so it is safest of all. This house comes with insulation so even in summer it feels cool.

9. What type of materials are used for the wall and ceiling surfaces?

Ans. - Highly compressed, High Density Fiber Cement Board and Imported Gypsum Boards.

10. Do the walls carry any external Hanging Loads?

Ans. - Loads Up to 40 Kg. could be hanged directly on the wall

Contact Us



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Let's make ourselves proud for adopting a green way of living!