



Casting & Stacking of Modules in the Casting Yard





Transportation of Modules to Installation Site







Installation at Site

### Industrialize Construction

a paradigm shift





#### Presentation

on

## 3D Monolithic Modular Precast

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### Levels of Construction Technology

Level 0 Level 1 Level 2 Level 3 Level 4











MATERIAL	COMPONENTS	ELEMENTAL OR PLANAR SYSTEMS	MODULAR VOLUMETRIC SYSTEM	COMPLETE BUILDING SYSTEMS
Basic materials for site- intensive construction	Manufactured components	components for  ✓ Series of Pre fabricated elements	3D components in the form of modules	Modular components - fully finished and delivered to site  ✓ Finished interior & exterior surfaces ✓ Less on-site work
<ul><li>✓ Involves more Labour</li><li>✓ Time consuming</li></ul>	<ul><li>✓ Fabricated in Factory</li><li>✓ Can't be build Onsite</li></ul>		✓ Volumetric, forms a completed part of the building	
	<ul><li>✓ Assist in construction speed</li><li>&amp; quality</li></ul>		✓ Involves more than one trade in the factory	

**Source:** Gibb., A.G.F., Off-site Fabrication—Pre-Assembly, Pre-Fabrication, and Modularization



### 3D Monolithic Modular Precast

hol Mission
Abode All
3 Dimentional
Monolithic
Modular
PRECAST

Manufactured as Monolithic RCC Modules and erected

Production in controlled plant conditions

Proven building material – Concrete & Steel

Designed to existing Building Codes

No Joints in Monolithic Modules

No Plastering & Ready to Paint Modules

With preinstalled MEP lines

Can embed Thermal Insulation

With provision for Solar, Water harvesting & IOT

No Pollution, Debris Free Site

Increased Safety & Security of Men & Equipment

#### Monolithic is the Most Advanced





Casting & Stacking of Modules in the Casting Yard





Transportation of Modules to Installation Site







Installation at Site

Guaranteed Time, Cost & Quality

Enables SCALING & SUSTAINABILITY



Five sided module cast in a single pour

First fix MEP is installed at the time of casting

Modules are fitted together—side-by-side or atop of each other to create the structure - similar to Lego blocks

# 3D Monolithic Modular Precast

### 3D Monolithic Modular Technology

### Each MOULD, is a factory

Remote control operated hence precise

Can deliver 250 – 300 sq. ft. carpet area every day

With just 10 Engineers / Mould

Machine-made sustained quality

Embedded with Service Lines and Ready to receive Paint

Can embed RE, Water harvesting & IOT too

Guaranteed Time, Cost & Quality

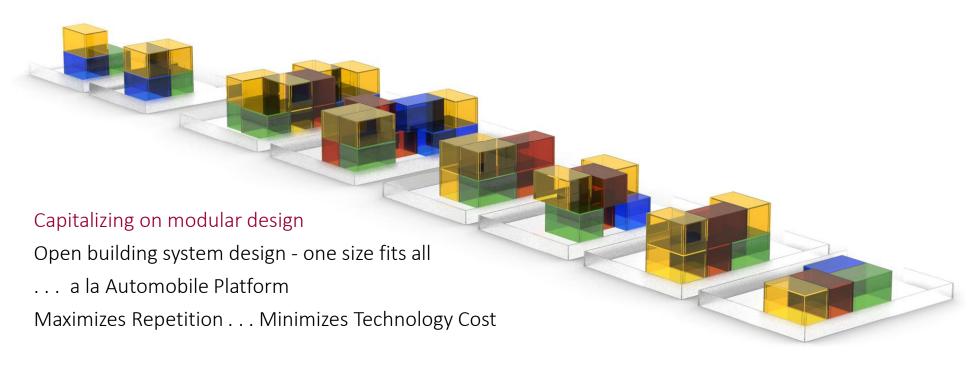






### 3D Monolithic Modular Technology

### One Design makes Many



### Problems Addressed by

#### 3D MONOLITHIC MODULAR PRECAST

- 1. Speed of Construction
- 2. Quality of Construction
- 3. All Weather & All Year Construction
- 4. Predictability of Time & Cost
- 5. Dwindling Skills / Labour
- 6. Low Productivity in Construction
- 7. Wastage in Construction
- 8. Health, Safety, Pollution & Environment Issues
- 9. Disaster Resistance
- 10. Resource Efficiency



Quality not dependent on Workmanship

Can Scale to match the Demand

Smaller / Modular Upfront Investment

Onsite Manufacturing avoiding Transportation Issues

### Solutions Provided by

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upto	50 %	STRONGER monolithic module
upto	50 %	LESSER material & labor costs
upto	90 %	WASTE FREE precision

in factory like condition

by trained production crew

delivering better finish

& faster monetization

enabling better project management

& sustainable development

On-Demand & At-Site Factories

All the above at Affordable Cost

### 3D Monolithic Modular Precast Process









TRANSPORTATION







#### **INSTALLATION ONSITE**













The Australian entity holding the Patent for the Modular Building Construction

Has a portfolio of projects both Domestically and Internationally

Specializes in Prefabricated concrete modular solutions to deliver architecturally designed sustainable building projects

Its Brand **Livin Modular** is the Winner of Excellence in Construction Innovation for the year 2019 for the "Renaissance Rise Mernda Project"







3D Monolithic Modular Precast Technology for India & countries in Indian Sub-continent

Prototype at Tata Housing Project in Boisar

Aviation Skill Development Centre @ GMR Goa International Airport

Achieved near Conventional Cost with Superior Quality and Time Reduction

Can Manufacture Onsite or Offsite

Business Model is Modular & Scalable

#### Technical Knowhow for India

- Design for Manufacturing & Assembly (DfMA)
- Indigenized Mould Fabrication (bringing down the Mould Cost by almost 50%) – Made in INDIA
- Trained Engineers & Crew
- Project Execution experience
- Project Planning & Scheduling for Manufacturing & Assembly
- Standardization of Onsite Procedures
- Documented Operating Procedures & Quality Processes

#### Collaboration with Building Material Suppliers







Marketing &
Construction Finance
to Owner driven
Construction



Sanitaryware & CP Fittings Tiles Modular Kitchens















End-to-end Offering of Technology + Design + Engineering + Manufacturing + Erection + Finishing

**PROJECT IN INDIA** 



### 3D Modular in India

5-storey Building with 20 Apartments

Cast & Assembled in under 33 Days

@

Tata Housing at Boisar, Mumbai

As fast as needed

Machine Made Quality

Only by Engineers & Technicians No Labour

Premium Quality @ same Cost







Tata Boisar Project Casting, Transportation, Assembly















3D Modular in India

Aviation Skill Development Centre @

GMR New Goa International Airport, MOPA, GOA

Inaugurated by the Honorable Prime Minister on 19<sup>th</sup> Dec 2021







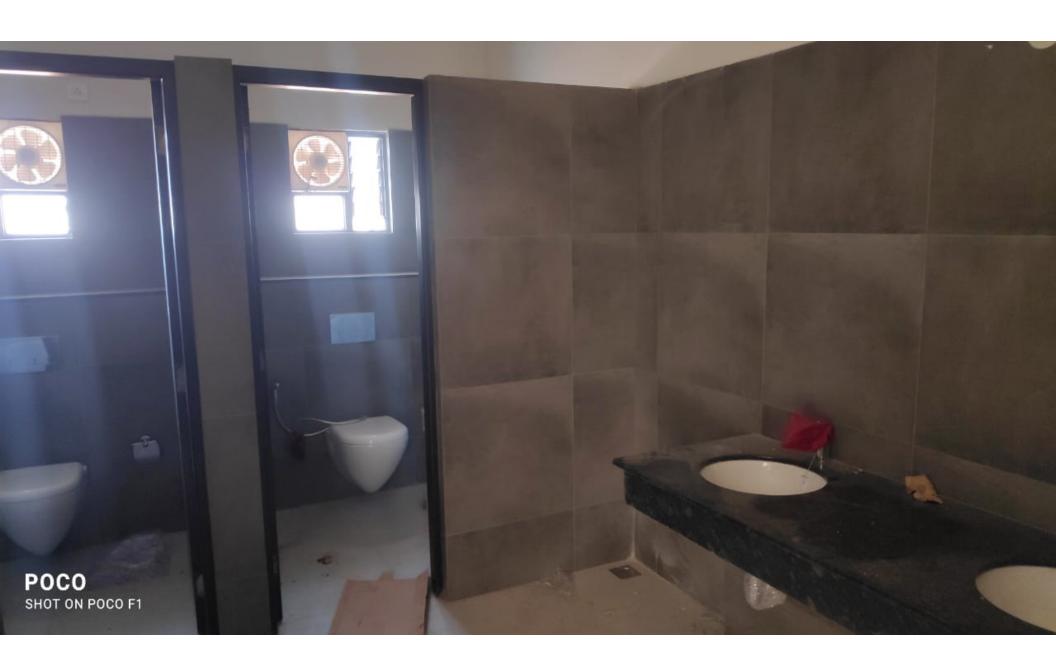














Dimentional Lonolithic Lodular RECAST



## India Project Team





**AUSTRALIA PROJECTS** 





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Abode All
3 Dimentional
Monolithic
Modular
PRECAST

Renaissance Rise Mernda Project

**Exterior Photos** 







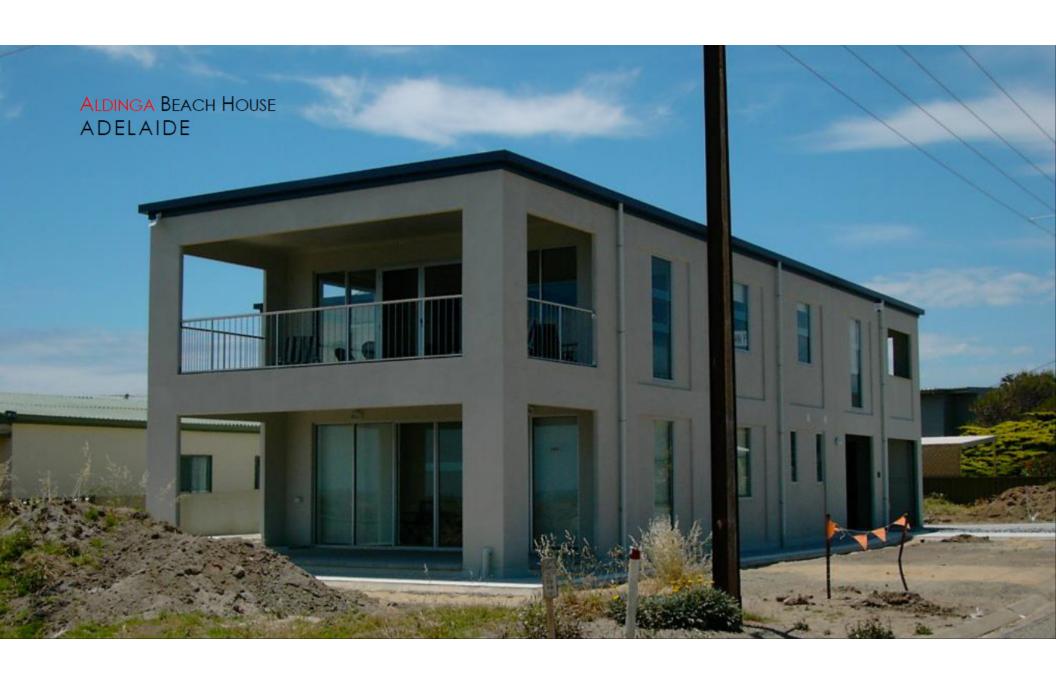


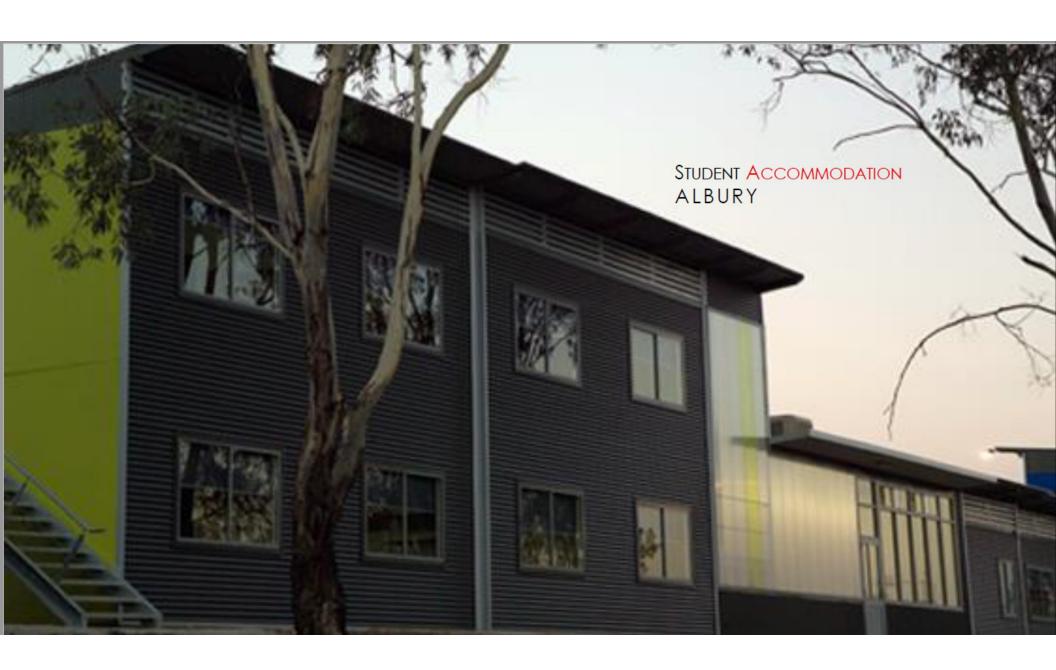


### Renaissance Rise Mernda Project

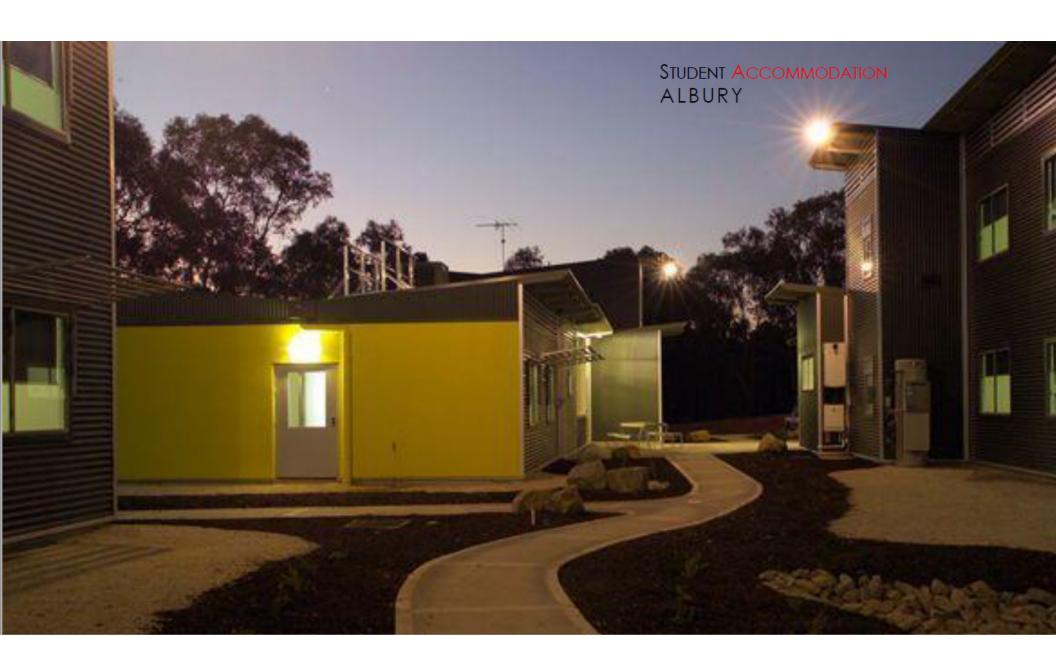












Villas - high end, medium and affordable housing

Apartment buildings

Student accommodation

Hotels/motels

Hospitals/clinics

Project / Corporate / Employee Housing

Retail outlets

Aged persons accommodation

Schools

Labour camps

Blast-proof structures for oil & gas /military applications

Warehousing

## **APPLICATIONS**

## Catalogue Villas Pre-Engineered | Manufactured | Installed Houses for Owner Driven Construction





CATALOGUE VILLAS Designs January 2019





## Issues Addressed

#### Finding a Good Architect

Difficult to find a good Architect for a individual house

#### Finding a reputed Contractor

Need to go by Referrals only – no list available

#### Procurement

Ensuring Quality material is a challenge

### Dealing with not so Professional Contractors

Do not stick to Quality, Time & Cost

#### Labour Issues faced by Contractors

Skilled Labour availability is a big challenge

#### Breaching the Budget of building the House

Demands to increase budget not uncommon

Minimal Civil Work at Site

Entire House assembled in 2-3 days

Fully finished home in 45 Days



30 x 40





## Villas



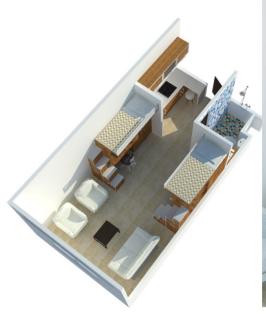


30 x 50











Student Housing

## Hotel



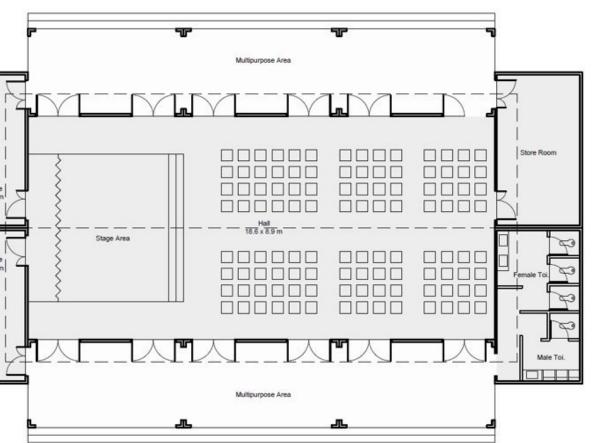




# Tiny Homes

Pre-finished Homes to be placed as Weekend homes @ Farm Houses







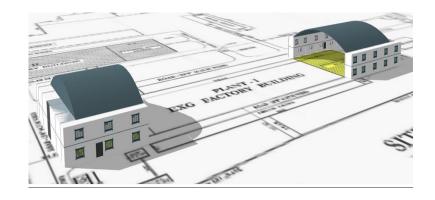
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Abode All
3Dimentional





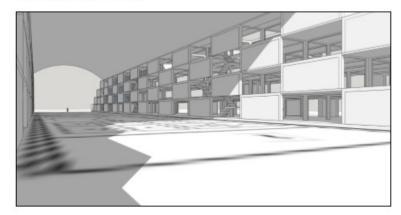






# Warehouse Factories

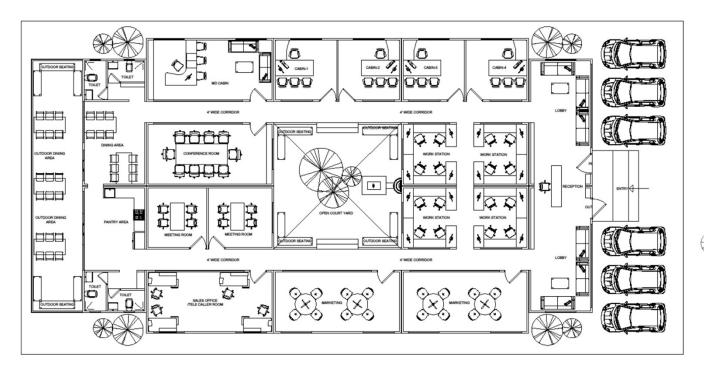
## **INTERNAL VIEW**



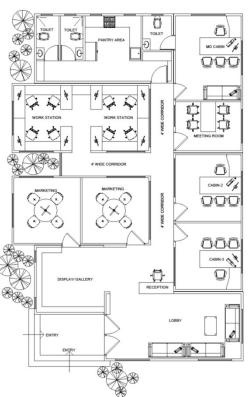
## Sales Office / Site Office

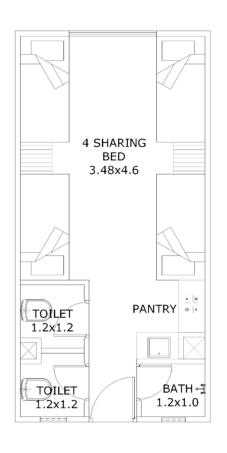


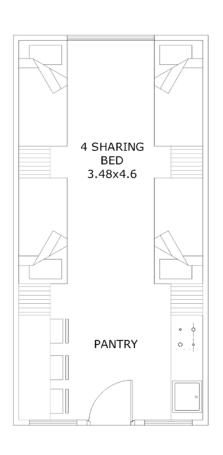
 $\sim$  5,000 sq. ft.

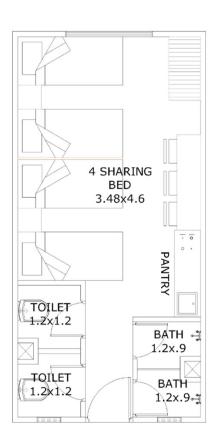


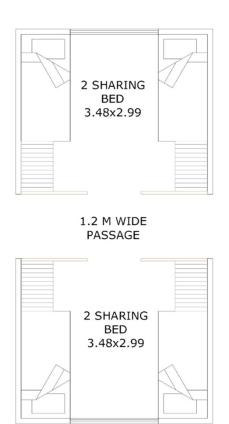
 $\sim$  2,500 sq. ft.



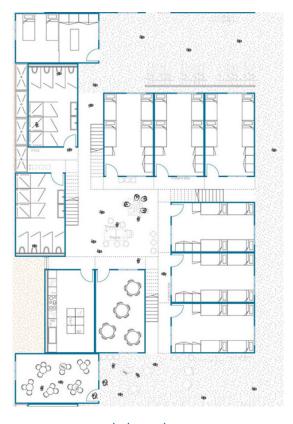




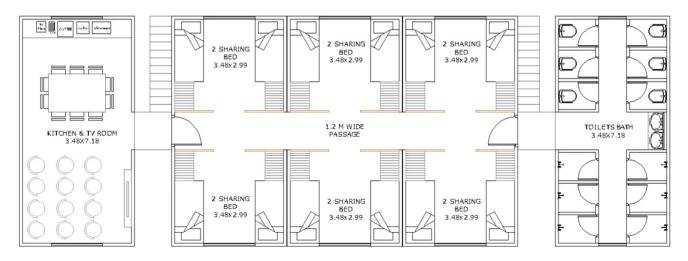




## Modular Layouts



Modular Cluster



Dormitory layout



## Let Us

## **Industrialize Indian Construction**

a paradigm shift

Thank You

