

PROJECT CASE STUDY

Cavite Modular Housing Project - Delivering Housing at Scale

Delivering affordable housing through repeatable modular precast construction.

110 MODULAR UNITS DELIVERED

Less than 12-month programme duration

2 MODULAR CASTING MACHINES

Operating in parallel for delivery of 53 row houses / 1 duplex / 110 modules

PROJECT OVERVIEW**LOCATION**

Cavite, Philippines

SECTOR

Affordable Housing

SYSTEM

BEC Modular Precast

The Cavite Modular Housing Project delivered 53 two-storey row houses and one duplex development in Cavite, Philippines. Using BEC Modular's precast housing system and two casting machines operating in parallel, the project delivered 110 structural modules within a programme duration of less than 12 months.

01 / THE CHALLENGE

Delivering Housing at Scale

01 Housing Demand

Growing demand for affordable housing and community infrastructure.

02 Program Delivery

Developers require predictable schedules and repeatable construction outcomes.

03**Workforce & Productivity**

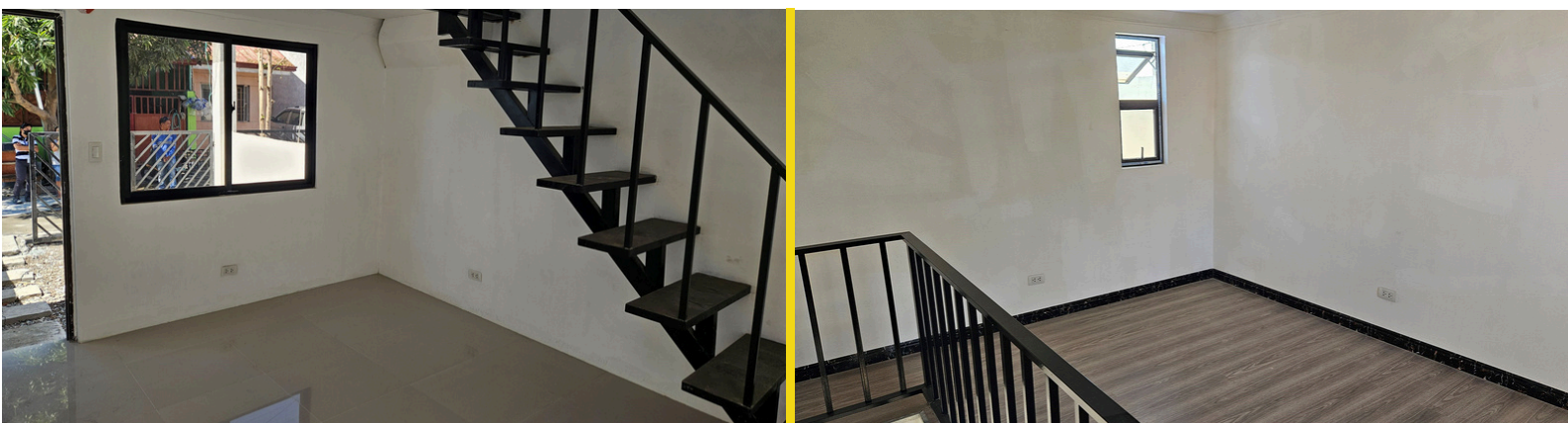
Labour-intensive construction methods can impact quality, productivity and programme delivery.

02 / THE SOLUTION

Scalable Modular Construction

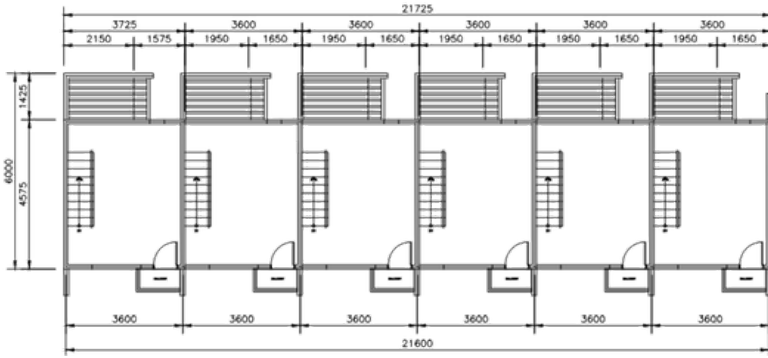
Two modular casting machines were deployed to operate simultaneously, allowing housing modules to be produced, installed and finished in a continuous cycle.

By standardising module dimensions, reinforcement layouts and service penetrations, production efficiency increased while maintaining consistent quality outcomes.

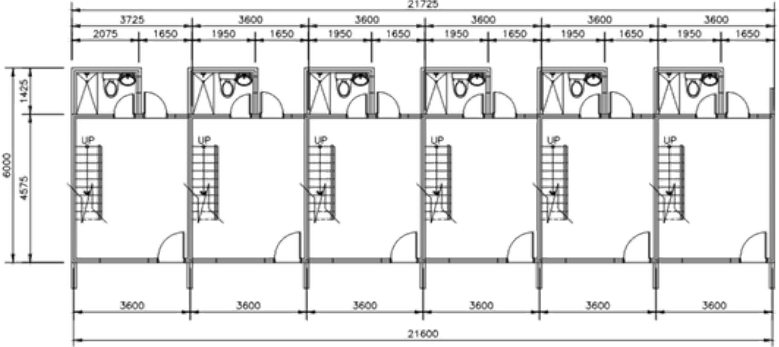


Typical Housing Module ~ 48 m²

UPPER FLOOR - FLEXIBLE ROOM LAYOUT | BALCONY 3.6 m x 6 m



LOWER FLOOR - LIVING | KITCHEN | BATHROOM 3.6 m x 6 m



Two casting machines delivered an entire housing development in less than 12 months.

PROJECT OUTCOME - CAVITE, PHILIPPINES

1 MACHINE = ~20 MODULES / MO.

2 MACHINES = ~40 MODULES / MO.

Production capacity scales through deployment of additional modular casting systems to meet programme requirements

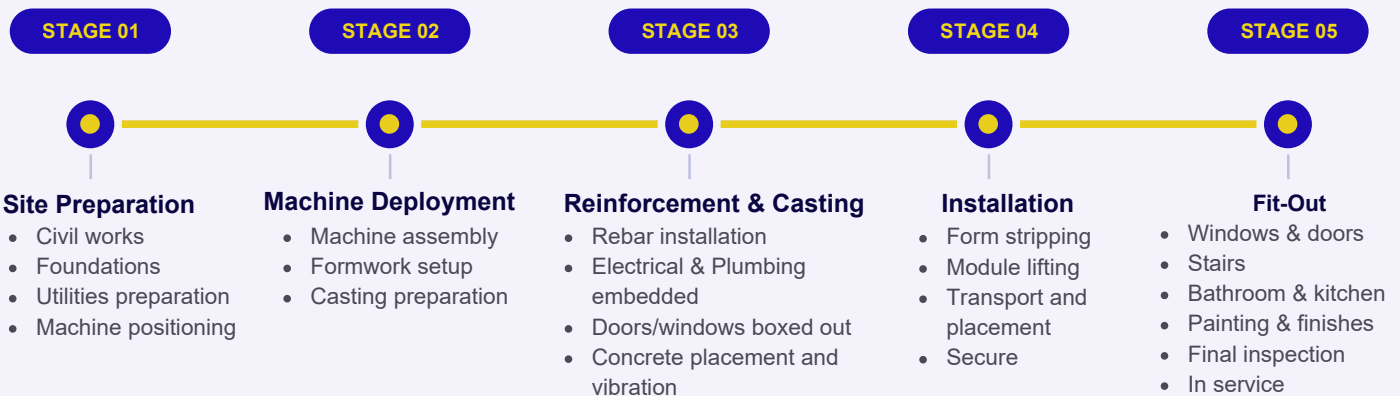
ENGINEERED FOR SOUTHEAST ASIA

- ✓ 350 kph Typhoon Design
- ✓ Richter 7+ Seismic
- ✓ Reinforced Concrete
- ✓ AITECH / DHSUD

BEC Modular's housing system has achieved AITECH accreditation through the Department of Human Settlements and Urban Development (DHSUD), validating its suitability for housing applications in the Philippines.

From Site Preparation to Handover

Deployment sequence from site preparation through operational handover.



By operating two modular casting systems in parallel, BEC accelerated production while maintaining quality, schedule certainty and repeatable construction outcomes.

Community-Scale Housing Programmes

BEC Modular supports rapid delivery of housing, schools, workforce accommodation and community infrastructure through scalable, repeatable construction.



BEC Modular

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