

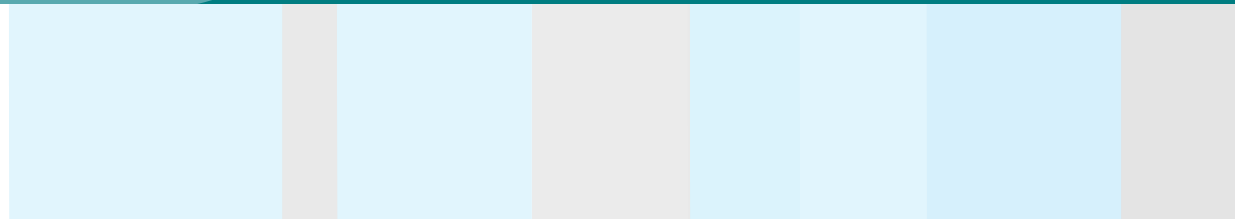
- 5.1 Trends in High-Rise Residential Development
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# Current Trends

Towards Buildability





# Current Trends

## Towards Buildability

“Buildability” itself is not a system, nor a prescription for how to design and document a project. It is a recognition of the complications involved in construction and a collaborative approach by developers, consultants and contractors to create successful project outcome. Apart from the legislative requirement, other important steering forces such as adoption of design and build arrangement, have fostered a greater integration in the design and construction processes right from the start. Tightened profit margins have required the project stakeholders to carefully understand and manage the risks and reap opportunities in value creation throughout the construction activities.

The steering forces though coming from different corners, have enabled project stakeholders to better understand the consequences of their work and their ability to influence project outcome. Typically cost, quality, schedule and safety are all positively influenced by consultants, contractors and developers when working collaboratively to come up with the best solution for the project.

### 5.1 TRENDS IN HIGH-RISE RESIDENTIAL DEVELOPMENT

In recent years, there have been notable improvements in the buildability of private sector projects, in particular high-rise residential development. More developers and designers are taking initiatives and making concerted effort together with the contractors to adopt more buildable design which facilitate better use of labour efficient method of construction.

Modern architecture being the trend in today’s residential buildings emphasises on clean, simple and lineal forms of building expression. It has encouraged more extensive use of prefabricated system. Locally, the combined use of precast and cast in-situ concrete elements are commonly adopted by designer because of its considerable benefits in terms of aesthetics, function as well as speed of construction. Precast building components, in particular, façade walls and bay windows are used to a greater extent for their quality surface finishes which require minimal treatment. Some examples of more buildable solutions adopted in the private high-rise residential development are presented in the following sections.

## 5.2 EXAMPLES OF RECENT PROJECTS

### THE ESPARIS EXECUTIVE CONDOMINIUM



#### Buildability Features:

- Flat Plate with Precast Façade
- Precast Shear Wall
- Precast Household Shelter
- Precast Column and Beam
- Precast Internal Wall
- Precast Staircase
- Prefabricated Vertical Shaft

CLIENT:  
City Developments Limited

ARCHITECT:  
Team Design Architects Pte Ltd

STRUCTURAL ENGINEER:  
Meinhardt (S'pore) Pte Ltd

MAIN CONTRACTOR (D&B):  
Ando Corporation

### SAVANNAH CONDO PARK



#### Buildability Features:

- Precast Beam
- Precast Slab
- Precast Bay Window
- Dry Partition Wall
- Precast Staircase
- Use of System Formwork for External Wall

CLIENT:  
City Developments Limited

ARCHITECT:  
Axis Architects Planners

STRUCTURAL ENGINEER:  
KTP Consultants Pte Ltd

MAIN CONTRACTOR (D&B):  
Dragages Singapore Pte Ltd

## CASABLANCA



### Buildability Features:

- Precast Slab and Beam
- Precast Façade
- Precast Bay Window
- Precast Internal Wall
- Precast Staircase and Planter Box
- Prefabricated Vertical Shaft

CLIENT:  
Mediterranean Properties Pte Ltd

ARCHITECT:  
DP Architects Pte Ltd

STRUCTURAL ENGINEER:  
KTP Consultants Pte Ltd

MAIN CONTRACTOR (D&B):  
Chiu Teng Enterprises Pte Ltd

## CHANGI RISE CONDOMINIUM



### Buildability Features:

- Flat Plate with Precast Façade
- Precast Internal Wall
- Precast Staircase
- Prefabricated Vertical Shaft

CLIENT:  
City Developments Ltd

ARCHITECT:  
Axis Architects Planners

STRUCTURAL ENGINEER:  
Parsons Brinckerhoff Pte Ltd

MAIN CONTRACTOR (D&B):  
Ssanyong Engineering  
& Construction Co Ltd

## GOLDENHILL PARK



### Buildability Features:

- Flat Plate with Precast Bay Window
- Use of System Formwork for Column and Wall
- Table Form for Flat Plate
- Precast Staircase and Planter Box
- Prefabricated Vertical Shaft

CLIENT:  
City Developments Limited

ARCHITECT:  
ADDP Architects

STRUCTURAL ENGINEER:  
LSW Consulting Engineers

MAIN CONTRACTOR (D&B):  
Hyundai Engineering  
& Construction Co Ltd

## KERRISDALE



### Buildability Features:

- Precast External Wall & Façade
- Precast Internal Wall
- Precast Staircase and Planter Box
- Prefabricated Vertical Shaft

CLIENT:  
Allgreen Properties Limited

ARCHITECT:  
Design Link Architects

STRUCTURAL ENGINEER:  
HCE Consultants Pte Ltd

MAIN CONTRACTOR (D&B):  
Kimly Construction Pte Ltd

## THE EQUATORIAL



### Buildability Features:

- Precast Beam
- Precast Slab
- Precast Staircase
- Prefabricated Vertical Shaft
- Use of System Formwork for Wall

CLIENT:  
City Developments Limited

ARCHITECT:  
Team Design Architects Pte Ltd

STRUCTURAL ENGINEER:  
KTP Consultants Pte Ltd

MAIN CONTRACTOR (D&B):  
Dragages Singapore Pte Ltd

## NUOVO EXECUTIVE CONDOMINIUM



### Buildability Features:

- Precast Beam
- Precast Slab
- Precast Façade
- Precast Internal Wall
- Precast Staircase
- Prefabricated Vertical Shaft

CLIENT:  
City Developments Limited

ARCHITECT:  
Architects Vista Pte Ltd

STRUCTURAL ENGINEER:  
KTP Consultants Pte Ltd

MAIN CONTRACTOR (D&B):  
Poh Lian Construction Pte Ltd

## TRELLIS TOWERS



### Buildability Features:

- Precast Shear Wall with Flat Plate
- Single Integrated Wall Panels for Bathroom
- Precast Internal Wall
- Precast Staircase
- Prefabricated Vertical Shaft

CLIENT:  
City Developments Limited

ARCHITECT:  
APCO Architects & Town  
Planners Collaborative Pte Ltd

STRUCTURAL ENGINEER:  
TY Lin South East Asia Pte Ltd

MAIN CONTRACTOR:  
Shimizu Corporation

## PARK GREEN EXECUTIVE CONDOMINIUM



### Buildability Features:

- Flat Plate with Precast Façade
- Precast Internal Wall
- Precast Balcony and Planter Box
- Precast Staircase
- Prefabricated Vertical Shaft

CLIENT:  
NTUC Choice Homes Co-operative Ltd

ARCHITECT:  
Chao Tse Ann & Partners Pte Ltd

STRUCTURAL ENGINEER:  
P & T Consultants Pte Ltd

MAIN CONTRACTOR (D&B):  
Tiong Seng Contractors Pte Ltd



## WOODSVALE CONDOMINIUM



### Buildability Features:

- Precast Column
- Precast Beam
- Precast Slab
- Precast Staircase
- Curtain Wall Façade
- Use of System Formwork for External Wall

CLIENT:  
Woodsvale Land Pte Ltd

ARCHITECT:  
Consortium 168 Architects Pte Ltd

STRUCTURAL ENGINEER:  
P & T Consultants Pte Ltd

MAIN CONTRACTOR (D&B):  
Nakano S'pore Pte Ltd

## TANGLIN VIEW CONDOMINIUM



### Buildability Features:

- Precast Column
- Precast Beam
- Precast Slab
- Precast Façade
- Precast Staircase
- Precast Internal Wall

CLIENT:  
Far East Organisation

ARCHITECT:  
TAA Architects Pte Ltd

STRUCTURAL ENGINEER:  
KTP Consultants Pte Ltd

MAIN CONTRACTOR:  
Chiu Teng/ Multiplex Joint Venture