

# GEM Building Taxonomy Report

## Precast Concrete System of Low Cost Residential Building

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#### Taxonomy string:

DX+PF /CR+PC /LDUAL+DUC /DY+OF /CR+PC /LDUAL+DUC /YAPP:Year 2008 /HEX:6 storey+HBEX:None+HFEX:18.4 m+HD:Flat terrain /RES+RES2F /BPI /PLFRO /IRRE /EWMA /RSH5+RMN+RC+RC3+RWCP /FC+FC3+FWCP /FOSDL

#### Material type (DX):

Concrete, reinforced

#### Material technology (DX):

Precast concrete

#### Material type (DY):

Concrete, reinforced

#### Material technology (DY):

Precast concrete

#### Type of lateral load-resisting system (DX):

Dual frame-wall system

#### System ductility (DX):

Ductile

#### Type of lateral load-resisting system (DY):

Dual frame-wall system

#### System ductility (DY):

Ductile

#### Latest possible date of construction or retrofit:

#### Number of storeys above ground:

Approximate date of construction or retrofit: Year 2008

#### Number of storeys below ground

Exact number of storeys: 6 storey

#### Height of grade above ground level:

Exact number of storeys: None

#### Slope of the ground:

Flat terrain

#### Building occupancy class - general:

Residential

#### Building occupancy class - detail:

50+ Units

#### Building Position within a block:

Interior of block

#### Shape of the Building Plan:

Rectangular, with an opening

#### Material of exterior walls:

Masonry

#### Type of irregularity:

Regular structure

#### Roof shape:

Monopitch

#### Summary:

A six storey twin block of low-cost residential building is located at Marunda - Jakarta, Indonesia. The building was designed as precast concrete open frames with cast-in-place core-wall at emergency staircases. This precast system emphasizes the use of 65 mm precast concrete half slab with 60 mm topping for the floor slabs, precast concrete column, beam and staircase. The equivalent monolithic systems at precast concrete joints were used and easily carried out by local workers.