

GEM Building Taxonomy Report

Single-family residential construction

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Taxonomy string:

DX /CR+CIP /LFINF /DY /CR+CIP /LFINF /YBET:1990,2012 /HBET:1,3 /RES+RES1 /BPD /PLFR //EWMA /+RMT2+RME /FC+FC3 /FOSDN

Material type (direction 1):

Concrete, reinforced

Material properties (direction 1):

Lateral load-resisting system (direction 1):

Infilled frame

Material type (direction 2):

Concrete, reinforced

Material properties (direction 2):

Lateral load-resisting system (direction 2):

Infilled frame

Foundations:

Deep foundation, with no lateral capacity

Type of Irregularity:

Unknown structural irregularity

Plan structural irregularity - primary:

Plan structural irregularity - secondary:

Roof shape:

Unknown roof shape

Roof system material:

Metal

Roof connections:

Roof-wall diaphragm connection unknown

Floor system material:

Concrete

Floor connections:

Floor-wall diaphragm connection, unknown

Exterior walls material:

Masonry

Date of construction:

Bounds for the date of construction or retrofit 1990-2012

Number of storeys above the ground:

Range of the number of storeys 1-3

Height of the grade above ground floor:

Height above grade unknown

Occupancy type - general:

Residential

Country:

Thailand

Summary:

Material technology (direction 1):

Cast-in-place concrete

Material technology (additional, direction 1):

System ductility (direction 1):

Ductility unknown

Material technology (direction 2):

Cast-in-place concrete

Material technology (additional, direction 2):

System ductility (direction 2):

Ductility unknown

Plan shape:

Rectangular, solid

Building position within a block:

Detached building

Vertical structural irregularity - primary:

Vertical structural irregularity - secondary:

Roof covering:

Fibre cement or metal tile

Roof system type:

Metal, unknown

Floor system type:

Precast concrete floor with RC topping

Number of storeys below the ground:

Unknown number of storeys

Slope of the ground (for buildings on slopes):

Unknown slope

Occupancy type - detail:

Single dwelling

Region (province, state, etc.):

Bangkok

Typical single-family houses in Thailand are usually one to three storeys high. These are cast in-place reinforced concrete frames with fired clay brick or concrete block infills. Roofing can be cement sheet, metal sheet, glazed tiles, and cast cement tiles supported by steel trusses. The connection between the trusses and the concrete frames is welded, through steel brackets attached to the concrete columns. Floor system is in the form of precast concrete planks or hollow core planks finished with concrete topping over a layer of steel wire mesh. The foundations are RC piles with various lengths from 6 to 18 meters for three storey buildings in the greater Bangkok area as the ground conditions are alluvial and soft.