

Examples of non-traditional construction building types

The following list of non-conventional dwelling construction methods represents a useful summary, sourced from <http://www.hiresources.co.uk/NT-AllType.asp> accessed 2013. Note: these webpages are no longer available at this address, however it is cached here: <http://archive.is/xb30f> & other cached pages may be accessed using appropriate free online software, for example see: <http://archive.org/web/> .

Name: Laing Easi-Form

Type: Poured In-Situ

Construction

8" thick solid no-fines clinker concrete walls in the period 1919 to 1928. 1925 to 1945 cast in situ cavity walls, 3" thick inner and outer leaves with 2" cavity, usually finished externally with stone dashed render coat. Post 1945 (the majority of houses) cast in situ concrete walls, inner and outer leaves of 3" thickness separated by a 2" cavity, reinforcement in both skins located in 4 horizontal bands above and below window openings.



Common Identifying Features

Line of wall lift evident in horizontal line within roof space, in roof space internal face of walls aggregate not so coarse as Wimpey No-Fines construction. Ventilation through external walls is rectangular in many examples of this construction.

Name: Mowlem

Type: Poured In-Situ

Construction

Solid cavity wall types. A cast in situ concrete form of construction, first used in 1952 but mainly in the period 1962 to 1981. Construction substitutes mass concrete for the inner blockwork walls of traditional housing. Solid wall types 225mm thick cast in lightweight concrete, rendered externally. Cavity wall types with an 'inner leaf of 100-125mm thick concrete, separated by a 2" cavity, reinforcement in both skins located in 4 horizontal bands above and below window openings.



Common Identifying Features: None known.

Name: Wimpey No-Fines

Type: Poured In-Situ

Construction

Is in situ cast no-fines concrete. Before 1951 external walls were commonly 12" thickness, 1951 to 1964 external walls were commonly 10" thickness, after 1964 walls were commonly 8" thickness. Gable walls maybe clad with a masonry outer leaf tied to the cast in situ concrete with wall ties. Up to DPC level the external walls maybe of masonry construction. Post 1964 examples of this construction can be dry lined internally and some external surfaces of walls maybe tile faced or weather boarded. Reinforcement commonly incorporated at eaves level and at a level to tie in with reinforcement over ground floor door and window openings.



Common Identifying Features

Measurement of the external walls at some 12" thickness, coarse aggregate evident to wall face concrete mix in roof space. Ventilation through external walls circular in many examples of this construction.

Name: Airey

Type: PRC

Construction

Post and panel construction. Storey height pre-cast concrete posts at 18" centres Incorporating steel tube reinforcement. External cladding 3' x 9" pre-cast concrete shiplap panels secured to posts by copper wire fixings, panel rendered in some cases.



Common Identifying Features

'Shiplap' cladding panels, tile hung gable ends

Name: Boot

Type: PRC

Construction

External walls trained in concrete piers or columns, fixed in pairs to create a cavity wall. Inner and outer leaves formed in clinker blocks or concrete panels, plastered internally and rough cast rendered externally. Roofs pitched and often hipped with conventional tile coverings.



Common Identifying Features

Front ground floor bay to some houses. Pattern of cracking to external rendering may reveal structure beneath.

Name: Cornish Unit

Type: PRC

Construction

Post and panel construction. Exposed concrete columns at 36" to 40" centres, carrying concrete slabs to form the leaves of cavity walls. Slab depths vary from 9" to 24" depending on type. Traditionally constructed Mansard roofs (Type 1 Cornish Units), although some were built with conventional hipped roofs and tile hung upper elevations. Type 2 units may have post and panel construction to upper elevations beneath a hipped roof.



Common Identifying Features

Exposed post and panel construction, Mansard roofs.

Name: Dorran

Type: PRC

Construction

Storey height narrow pre-cast concrete panels rising from a kerb unit at ground level and a concrete ring beam at first floor level. Panels bolted together horizontally and backed by a Timber frame internally. Scaled externally by mortar pointing or Bitumastic Tape beneath a textured finish. Roofs are twin pitched and tiled often with vertical boarding or tile hanging to gable ends.



Common Identifying Features

Outward slope to first floor ring beam, vertical boarding to gable end.

Name: Dyke

Type: PRC (No image available)

Construction

Storey height concrete panels and columns secured by steel angle brackets. Concrete beams run from front to rear at first floor and eaves height. Cavity built walls with concrete panels forming the outer leaf and concrete slabs forming the inner leaf. Panels have an exposed aggregate finish but may be tendered throughout or to one storey only. Flipped and tiled roof.

Common Identifying Features

Panels set between columns at ground floor level and overlapping columns at first floor level creating an oversailing first floor.

Name: Gregory
No image available

Type: PRC

Construction

Pre-cast concrete storey height columns, kerb units and ring beams concealed within an external cladding of concrete panels with staggered vertical joints. The Mansard first floor and roof is tiled and of traditional construction, carried oil concrete cantilever units from the ring beam.

Common Identifying Features

Mansard first floor and roof, staggered vertical joints to panels give appearance of block-work.

Name: Myton

Type: PRC

Construction

Storey height concrete panels rising from a concrete kerb unit with a concrete ring beam at first floor level. Wall panels dry lined internally and incorporate fibreglass insulation. Externally raised aggregate finish with mortar pointed joints. Roofs are twin pitched either tiled or clad with asbestos cement sheeting. Gable ends are finished with asbestos cement panels.



Common Identifying Features

Gable end panels, first floor ring beam stands proud of panels.

Name: Newland

Type: PRC

Construction

Similar to Myton (ie, based on storey height concrete panels) but with steel used for first floor ring beam, floor joists and roof trusses. Vertical panel joints left exposed externally and concrete columns may be exposed on corners and party walls. Roofs are twin pitched with a cladding of asbestos cement sheets.



Common Identifying Features

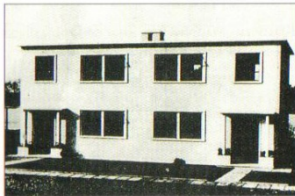
Ground floor bay to the front elevation.

Name: Orlit

Type: PRC

Construction

Storey height concrete columns with main beams spanning from front to rear. Cavity built external walls comprising an outer leaf of 4' (or 2') by 1'4" paving slabs and an inner leaf concrete blocks may be rendered externally. Roofs may be of flat construction (pre-cast concrete slabs finished with Asphalt and Bitumen) or pitched and tiled.



Common Identifying Features

PRC panels can give appearance of blockwork.

Name: Parkinson

Type: PRC

Construction

Frame of concrete columns, tiled front and rear by beams at first floor and eaves height, where there are also perimeter beams. Infill between the columns comprises 2 leaves of concrete block work with a rendered or pebble dashed finish externally. Roofs are traditional hipped and tiled construction.



Common Identifying Features

Columns and beams visible internally.

Name: Reema Hollow Panel

Type: PRC

Construction

Storey height large pre-cast concrete hollow panels with cast in situ concrete columns and beams. Panels have a plain or exposed aggregate finish externally. Roofs are either hipped or twin pitched with tiling.



Common Identifying Features

Flank wall recessed relative to gables, may have moulded cills and surrounds to window.

Name: Schindler & Hawksley SGS **Type:** PRC

Construction

External cladding of brickwork concealing a structural frame of cast in situ concrete columns and ring beams, with a further beam running from front to rear. Roofs are of conventional pitched and tiled design.



Common Identifying Features

Columns and beams may be visible internally.
Traditional appearance externally.

Name: Stent

Type: PRC

Construction

Storey height 12" wide pre-cast concrete T-section panels rising from concrete kerb units. Ring beam at first floor height. External finish can be either masonry paint, rough cast render or exposed aggregate. Roofs may be flat or of traditional pitched And tiled construction, possibly with hipped gable ends.



Common Identifying Features

Distinctive projection to lower lip of first floor ring beam.

Name: Stonecrete

Type: PRC (No image available)

Construction

PRC framework of storey height concrete posts at 2' 6" intervals, located in string courses at first floor and caves level. Plain concrete panels (2 per storey height) fit between the posts to form the external cladding. Internal linings are of 2" reinforced plaster slabs. Roofs are traditionally built, hipped and tiled.

Common Identifying Features

Strongly expressed external framework, 2 per storey panel height, often with drip mouldings on horizontal joints.

Name: Tarran

Type: PRC

Construction

16" wide, storey height pre-cast concrete panels rising from concrete kerb units with steel channel section ring beam at first floor level. Twin shallow pitched roof with asbestos cement sheets on steel trusses.



Common Identifying Features

Open vertical joints to external panels.

Name: Underdown

Type: PRC

Construction

Pre-cast concrete slabs, 3' x 12" with cast in situ concrete columns and ring beams. The wall slabs are rendered externally and plastered internally. Roofs are traditional timber framed pitched and tiled.



Common Identifying Features

Traditional appearance externally (smooth render or pebble dash finish) but pattern of vertical and horizontal cracks may identify concrete slabs beneath. Similar to Winget house.

Name: Unity & Butterly

Type: PRC

Construction

Storey height precast concrete columns linked at first floor and eaves height by steel plate beams running front to rear. Outer leaf of 3' wide concrete Panels, inner leaf of concrete blockwork or dry lining. Pitched roof constructed of timber or concrete rafters with a covering of tiles laid on asbestos boards.



Common Identifying Features

External cladding resembles blockwork laid with continuous vertical joints

Name: Waller

Type: PRC

(No image available)

Construction

Storey height pre-cast concrete panels carried on cast in situ Concrete columns and ring beams. Inner leaf also of Storey height concrete panels. Concrete panels and joists from first floor, with concrete beams and ceiling panels and eaves height. Pitched roof with cladding of large, through shaped concrete sections extending from eaves to ridge.

Common Identifying Features

Distinctive roof design (but may be concealed by tiling), columns and ring beam may finish proud of wall panels.

Name: Wates

Type: PRC

Construction

Storey height load bearing PRC panels of varying widths, with PRC ring beams at first floor and eaves height. Traditionally constructed tiled roof.



Common Identifying Features

Characteristic 'Tartan Grid' pattern due to arrangement of Storey height panels of varying width. Upper storeys may be tile hung and blocks of slabs may have brick

Name: Wessex

Type: PRC

(No image available)

Construction

Storey height PRC panels with concrete beams at first floor and eaves height linked by further beams running front to rear at first floor height. Corners formed by structural columns. Traditionally built pitched and tiled roof.

Common Identifying Features

2' x 1' panels. Structural columns on corners and beam at first floor height visible externally

Name: Winget

Type: PRC

Construction

External walls comprise 2 leaves of 3' x 9" PRC panels with cast in situ piers and ring beams. Building corners formed by pre-cast quoin blocks. Walls are rendered externally and plastered internally. Traditionally built pitched and tiled roof.



Common Identifying Features

Window openings may be divided by structural columns

Name: Woolaway

Type: PRC

Construction

Structural framework of storey height PRC posts and plinths carrying inner and outer leaves of 4' x 2' aerated concrete panels, rendered externally. Traditionally built pitched and tiled roof.



Common Identifying Features

Corrosion of bolts connecting panels to posts causes distinctive pattern of spalling to external rendering.

Name: Arrowhead

Type: Steel Frame



Construction

Lightweight steel frame constructed of channel members supported by side plates.

Common Identifying Features

None known.

Name: British Iron and Steel Federation Housing (BISF)

Type: Steel Frame

Construction

Structural steel frame in light sections.



Common Identifying Features

Ribbed metal sheeting to first floor external, metal surrounded window projecting from wall face, corrugated asbestos cement roof covering

Name: Dorlonco

Type: Steel Frame



Construction

Steel frame with metal lathing and rendering.

Common Identifying Features

Steel roof truss.

Name: Hawthorne Leslie

Type: Steel Frame



Construction

Steel stanchions with timber and steel beams.

Common Identifying Features

Semi compressed asbestos based hoarding as external finish.

Name: Howard

Type: Steel Frame

Construction

Steel stanchions, lattice beams between stanchions in external walls, steel Joists spanning from a spine wall to perimeter walls.



Common Identifying Features

Low pitched roof and horizontal bands of cladding.
Steel angle roof trusses at 3'6" centres.