



ACT Heritage Council

BACKGROUND INFORMATION

Mackie House, 41 National Circuit

(Block 16 Section 7, Forrest)

At its meeting of 25 August 2016 the ACT Heritage Council decided that Mackie House was not eligible for provisional registration.

The information contained in this report was considered by the ACT Heritage Council in assessing the nomination for Mackie House against the heritage significance criteria outlined in s10 of the *Heritage Act 2004*.

HISTORY

Doug and Jill Mackie moved to Canberra from Sydney in 1956. Doug Mackie was proprietor of the Kingston newsagency before moving into property development. In 1958, the couple bought a block of almost half an acre at 41 National Circuit for £970 (Reeves and Roberts 2013: 98).

The Mackies commissioned the Sydney firm of McConnel, Smith and Johnson to design a four bedroom home. The supervising architect was Peter Keys, recently returned from London, who was Doug Mackie's first cousin (their mothers were twins). The Mackies obtained a permit to build within two months of signing the lease and their house on 41 National Circuit ('Mackie House') was certified finished ten months later (Reeves and Roberts 2013: 98).

The Sydney-based practice of McConnel, Smith & Johnson (MSJ) was established in 1955. The firm had its origins in a post-war office formed in 1949 by Kenneth McConnel, a talented designer whose sensitive designs had been recognised before World War II with the presentation of Sulman Award when he was a partner of Fowell, McConnel & Mansfield. One of McConnel's early and ongoing projects was the War Veterans' Home, Dee Why, NSW (1949-73), which was built in six stages and planned as a village, informally sited in its bush landscape (Goad and Willis 2011: 436).

McConnel's practice grew in the early 1950s: S.B. (Stan) Smith joined in 1950 and R.N. (Peter) Johnson joined in 1951. Smith, a modernist and admirer of Walter Gropius's idea of collaboration within an architect's office, encouraged a team based approach to practice and this was taken up. As Jennifer Taylor has written, the firm 'approached architecture as problem-solving, insisting on a rational basis for design, and valuing above all a building that "works well"'. Smith became a partner in 1952 and Johnson followed in 1954. From 1955 the firm was henceforth known as McConnel, Smith & Johnson (Goad and Willis 2011: 436).

Towards the end of the 1950s, young architects in the firm included, among others, David Jackson, Tony Moore and Peter Keys, all recently returned from London where the issues of urban context, modernist critique and brutalism were part of daily discourse (Goad and Willis 2011: 437).

By the early 1970s, the firm had opened an office in Canberra and had completed a series of reserved but typically responsible projects: the CSIRO Headquarters building (1970), the Canberra Club (1976); and the National Press Club (1976), all in the National Capital Development Commission's (NCDC) preferred idiom of the day: simple modern architecture finished in off-form concrete or off-white pre-cast concrete panels (Goad and Willis 2011: 437).

In 1970, the NCDC commissioned MSJ to design the Benjamin Offices, Belconnen (1970-80), a vast office complex for 3500 public servants that would match the scale of John Andrews's nearby Cameron Offices. MSJ broke the complex

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down into groups of low rise office blocks, rhomboid in plan and connected by elevated pedestrian walkways: a challenging task, largely successfully achieved, to create a humane urban system on such a scale (Goad and Willis 2011: 437).

Mackie House won the RAI A Canberra Medallion Award in 1962. The Canberra Times entry from Thursday 8 November 1962 (p. 2) reads:

The home of Mr and Mrs Mackie, of Forrest, was chosen from 14 entries for its exceptional merit in architecture.

The president of the ACT Chapter of the RAI A, Mr M.J Moir, said:

It has been unanimously agreed that the Medallion be awarded for the House of Mr. and Mrs. Mackie, 41 National Cct, Forrest. The architects are McConnel, Smith and Johnson of Sydney, and the nomination was made by Peter Keys of that firm. The jury was impressed with the general level of design skill evident in the houses nominated, almost all of which showed excellent characteristics in one or more respects. The house chosen for the award is commendable for achieving a balance of advantages which, in the opinion of the jury, constitutes exceptional merit in architecture.

It is unclear how the design, siting, and construction of Mackie House achieved exceptional merit, and what criteria were applied in order to determine this outcome. The first Canberra Medallion award was announced in 1955, and at this date, in contrast to the mass production, low cost and limited designs that characterised government NCDC house production, the Mackie House would have stood out as expensive, and architect designed. It is possible the Mackie House may have stood out as interesting and noteworthy to a judging committee of Canberra circa 1960 (Campbell Dion 2016: 5).

Doug and Jill Mackie loved their house. But it eventually became too big for them and they moved in 1993 to a house in Yarralumla designed by Ken Woolley (Reeves and Roberts 2013: 99).

Mackie House is listed on the Australian Institute of Architect's' Register of Significant Twentieth Century Architecture (Item No. R038).

Steel portal framing

Steel portal framing was used in the construction of Mackie House.

The basic structural form of portal frames was developed during World War II driven by the need to achieve low-cost building envelopes. Now they are the most commonly used structural forms for single-storey industrial structures (ACT Heritage Council 2010).

Notable use of steel portal framing in the ACT is demonstrated in the Former Transport Depot, Kingston (1940-1941). The use of a steel fully welded rigid portal frame as the structure to support the roof was innovative at that time not only in Australia but also in the world generally. Prior to World War II in Australia, only two fully welded steel structures appear to have been built. These were bridges in Tasmania, not portal frames. Internationally this structural system was still in its exploratory stage (ACT Heritage Council 2010).

From about the mid 1950s to the 1990s the rigid portal frame was often the most economical structural solution in spans between 15 metres and 45 metres. Although the portal frame may require a greater mass of steel than the equivalent column-and-truss structure, the savings in the cost of fabrication and erection due to the relative simplicity of the work nearly always make it the optimum system. Almost all portal frame structures built in Australia are custom designed and manufactured (ACT Heritage Council 2010).

Use of steel portal framing in a residential property such as Mackie House in 1959 was unusual. The building covenant placed on the site in Forrest required the house comprise brick construction. The use of the steel portal frame on load-bearing brick walls represents a somewhat innovative structural solution to the relevant planning requirements (AIA N.D.)

DESCRIPTION

In 1959 (see Images 2, 3 and 4 for post-construction photographs) the completed Mackie House was a long, low dwelling – large for its time – that straddled the very wide block. The front faced Red Hill to the south; the main living areas and bedrooms faced north. Windows in regular bays were full height along the living areas and the master bedroom. These were half height otherwise, with wide eaves to exclude the summer sun. A half-roofed, half-pergola verandah had slender, elegant pillars that emphasised the rhythmic bays (Reeves and Roberts 2013: 99).

The house sat on a concrete slab with walls of white, bagged brick. The low-pitched gable roof employed the new technology of steel portal frames over the large formal living and dining areas, a method often used today for warehouses. The ceiling of this room reflected the roof pitch which, combined with a drop of three steps from the bedroom end of the house, created a spacious effect. A free-standing sandstone fireplace here was augmented by an oil-fired heater. The sunroom had a combustion stove while the bedrooms were warmed by convection heat (Reeves and Roberts 2013: 99).

The kitchen received northern light from across the family living room but its main outlook was to the east and to the west across a small court. The main living room and the main bedroom extended through the house to the street elevation. A central smaller living room was used for family dining and an alternative formal dining room was provided between the kitchen and the larger living room (Clerehan 1961).

The house was built on a concrete slab and the walls were load-bearing brickwork. The slab was covered with a variety of materials – carpet in the bedrooms, hall and living room, cork tiles in the passage, ceramic tiles in the bath and shower-rooms, vinyl tiles in kitchen and laundry, and mahogany parquet in the informal living room (Clerehan 1961).

Brickwork externally and internally was rendered. The ceilings were fibrous plaster and followed the roof pitch in the living room area but were flat (at eight feet) in the bedrooms (Clerehan 1961).

Architecturally, Mackie House could be described as modernist functionalist, with influences from the Late Twentieth Century Sydney Regional Style¹ (c. 1960 – colloquially known as the ‘Sydney School’) and Post-War International Style, (1940 – 1960, as per Apperly et al (1994), with some Spanish influence in the use of curved roof tiles (see Image 5 for 1959 floor plan).

It has been described as an example of Brutalism, (Goat and Willis 2011). However, it is difficult to interpret strong or significant elements of brutalism in Mackie House. For example, it lacks the hefty, chunky character of the style, and also lacks pre-cast panels, and bold expression of materials such as clinker brick and reinforced concrete in panel construction.

Late Twentieth-Century Sydney Regional Style (1960–) refers to an architectural style established by a group of architects in Australia who reacted against international Modernism with their own regionalist style during the 1960s (MHM 2013).

Late Twentieth-Century Sydney Regional Style (1960–) was concerned with site-specific regional architecture which would improve the quality of housing for average Australians. Their philosophies of design and place are said to have represented a solution to the fear and angst of the war years. Architects focused on creating new and exciting opportunities for living within, rather than against, their unique landscape (MHM 2013).

Houses of Late Twentieth-Century Sydney Regional Style (1960–) were often built on sloping bush-land. The sites had a great influence on the architects, with the native landscape being fundamental. The houses typically followed the fall of the site through split level planning with roofs parallel to the slope, creating complex and interesting interior spaces (MHM 2013).

Early exemplars of these houses were often built on sloping bushland sites around Sydney Harbour’s sheltered upper reaches (Canberra House N.D).

The following elements of Late Twentieth Century Sydney Regional Style (1960 -) can be interpreted at Mackie House:

¹ Mackie House would have been an early example of architecture adopting elements of this style.

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- high windows and doors;
- roofline extending over carport;
- tiled roof;
- internal timber cladding;
- split levelling (internal, to a lesser extent);
- solar access in response to siting (i.e. northerly aspect). However, the solar passivity demonstrated by the house in 1959 has been strongly reduced as of 2016, as previous extensions have produced three additional projections, significantly reducing the amount of northerly sunlight received.

However, its ability to fully demonstrate this style is diminished by:

- absence of steep topography allowing pronounced split-level planning;
- absence of framing with stained or oiled timber (timber frames were/still are painted);
- absence of asymmetrical massing;
- absence of skillion roof (roof is gabled);
- absence of clerestory windows;
- absence of timber post and beam construction;
- absence of exposed rafters;
- absence of exposed roof beams;
- absence of timber deck;
- absence of clinker brick walling;
- absence of painted brick walling (the bricks have been rendered);
- absence of boarded stud wall;
- absence of timber awning sash;
- absence of slatted timber screens.

Post-War International Style (1940 - 1960) was adopted Australia-wide, representing a 'new beginning' after the end of World War II. The functional tradition of inter-war Europe and the United States found ready acceptance in an expanding Australian economy. Post-War International Style (1940 - 1960) was seen as transcending national boundaries, and was adopted during a time when there was a need for intensive building programs triggered by a post-war economic and population boom (Apperly et al 1994).

The following elements of Post-War International Style (1940 - 1960) can be interpreted at Mackie House:

- original rectilinear plan form in the 1959 house; this has mostly been lost as of 2016;
- use of steel for framing (i.e. steel portal framing);
- large sheets of glass, configured similarly to Sydney Ancher's influential 'House,' Killeaton Street, St Ives, NSW;
- long, low elevations;
- overhang for shade (i.e. wide, overhanging eaves).

However, its ability to fully demonstrate this style is diminished by:

- absence of expressed structural frame;
- absence of curtain wall;
- absence of external sun-control device;
- absence of Corbusian window motif;
- absence of cantilever;
- absence of contrasting, non- rectangular shape.

There are several significant examples of domestic Late Twentieth-Century Sydney Regional Style (1960–) architecture in the ACT:

- 'Cater House,' 145 Mugga Way, by Allen Jack and Cottier (1965). Registered on the ACT Heritage Register. This house is regarded as an excellent example of the style. It demonstrates its key style indicators, including asymmetrical massing, split level form, stained timber joinery, skillion roof, exposed roof beams, timber deck, white bagged brick walling, timber awning sashes, and stained (not painted) timber fascias and posts (ACT

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Heritage Council 2008a).

- Royal Australian Institute of Architects Headquarters, by Bryce Mortlock (1967). Registered on the ACT Heritage Register. Designed by prominent Sydney architect Bryce Mortlock, the gentle integration of roof forms and landscape berms conceals a beautifully detailed design, with wide overhangs and louvred windows for privacy, sun protection, and security; and the landscaped berms providing privacy and noise protection from the passing traffic. The building complements the surrounding environment, with a domestic scale which does not intrude on the surrounding residential character of the suburb (ACT Heritage Council 2008b).

Other examples include:

- Kanangra Court (Ainslie Ave, Reid) by Collard, Clarke and Jackson (1962).
- Pettit & Sevitt Housing, various suburbs (1966-78).
- 12 Marawa Place (Aranda) Robin Boyd (1969) listed on the ACT Heritage Register.
- Swinger Hill Stage 1 and 2 (Phillip) Ian McKay and Partners for the NCD (1969). Listed on ACT Heritage Register for planning principles, not as a significant example of the Late Twentieth-Century Sydney Regional Style (1960–).
- 38 Mirning Cres, (Aranda) by Roger Pegrum (1971-72).
- Urambi Village (Crozier Cct Kambah), by Michael Dysart (1974).
- Cook Housing Cooperative (Wybalena Grove) by Michael Dysart (1974) nominated to the ACT Heritage Register.

There are several examples of Post-War International Style (1940 - 1960) of significance in the ACT:

- 'Bowden House,' 11 Northcote Cres, Deakin (1951-52), by Harry Seidler, one of Australia's most celebrated architects. Nominated to the ACT Heritage Register, the house is an early example of the style, with its cubiform shape, Corbusian window motif, overhang for shade, plain smooth wall surfaces, contrasting textures and large sheets of glass. The original house was an excellent example of Seidler's early work in Australia and was probably his first commission outside Sydney (Canberra House N.D.).
- 'Benjamin House' 10 Gawler Crescent, Deakin (1956) by Alex Jelinek. Registered on the ACT Heritage Register as an excellent example of the style with structural frame expressed, overhang for shade, plain smooth wall surfaces, cantilever and large sheets of glass. This is one of Canberra's earliest examples of the style (ACT Heritage Council 2004).
- 4 Cobby Street, Campbell, Roy Grounds, (1969-1970). Registered on the ACT Heritage Register. This property is recognised as a combination of Post War Melbourne Regional Style, and Post-War International Style (1940 - 1960), characterised by cubiform overall shape, overhang for shade, plain smooth wall surface, and large sheets of glass (ACT Heritage Council 2008c).

Post-War International Style (1940 - 1960) formed an important part of public and commercial space in mid-century Canberra. For example, the public housing complexes such as Northbourne Housing Precinct Representative Sample (Sydney Ancher 1959, Dickson) and Bega and Allawah Flats (Richard Ure, Braddon, 1954), were important exemplars of this style, as was the MLC Building (Bates, Smart and McCutcheon 1957-61) in Canberra's Civic centre. The MLC building is considered particularly important as one of the earliest examples of Post-War International Style (1940 - 1960) in public space, as a precursor to the Late Modern style of architecture, and its system of construction directly influenced the design of other buildings, such as Eclipse House, in the Canberra CBD.

Other examples include:

- Birch House (3 Arkana St Yarralumla) by Noel Potter (1967) nominated to the ACT Heritage Register.
- Campbell Group Housing (Blamey Crescent) by Herry Seidler (1964) registered on the ACT Heritage Register.
- ANZ Bank Building (London Cct) by Stuart McCintosh (1961-63) registered on the ACT Heritage Register.1967).

Physical condition and integrity

While Mackie House is structurally sound and in good condition, most of the original design elements have been significantly altered and are no longer strongly evident.

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The house was altered in 1971, 1977 and 1991. Compare Image 5 with Image 6 to see visual overview of changes described below.

The alterations in 1971 significantly changed the original house by:

1. creating a new western wing containing a new master bedroom on the lower level, roof extended over master bedroom, original terrace demolished; (The effect was to completely change the north elevation of the building).
2. Ensuite with new window added to existing Bedroom, door relocated.
3. Bedroom 2 demolished to become access to master bedroom.
4. Fence with gate between master bedroom and pool room.
5. Existing sunroom became dining room. New sunroom erected on lower level.
6. approved construction of an inground pool 12192 x 6096 to the north of the house.
7. Pool room, store, filter room; and en-suite erected west end of pool.

The extension of the west wing resulted in the projection of this corner of the house, interrupting the original northern elevation (see Image 7).

In 1977 the sunroom floor was raised level with old dining room and a new dining room was created. A new roof was extended over new dining room.

See Image 8, and compare with Image 3 and Image 4 for an indication of how the 1971 and 1977 changes altered the original line of the northern facade.

In 1991 a store and carport was added to the north-west corner of the block. A terrace extension on a concrete slab with three new steps was attached to the existing pergola north of existing lounge.

In addition to these alterations and extensions, the kitchen, bathroom, w.c. and laundry were remodelled circa 2005/2006. The original laundry was converted to a butler's pantry, and the original w.c. and bathroom were reconfigured to a laundry and bathroom.

A further external alteration was the enclosure of the carport, which, as of 2016, has been converted to a garage (Image 9).

Internally, every major element of the building has undergone significant change, and while the main living room remains largely in its original form, the significant reduction in fenestration to the north has a major impact on the room's ambience (Campbell Dion 2016: 4).

The following are additional changes to the interior configuration of the house:

1. The original laundry was converted to a butler's pantry.
2. The original shower room (connected to courtyard) was converted to a laundry.
3. Bathroom was fully renovated.
4. South elevation changed full height window and full height door replaces original windows in lounge/dining area.

The addition of the dining room, new family room, attached terrace, and the new master bedroom, have reduced the length of the northern terraces and their intended impact on both the internal spaces, the outdoor recreation spaces and the general appearance of the building from the north (Campbell Dion 2016: 4).

In Mackie House the portal framed roof (see Image 10) covers 28% of the dwelling area but only 18% of the roofed area of the house. This coverage is reduced to 14% when account is taken of the extensions to the house. Although the columns of the portal frame are expressed internally, they are not a significant interior design feature of the house (Paul Cohen pers. comm 11 August 2016).



Mackie House (Block 16 Section 7 Forrest)

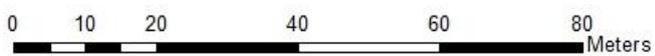


Image 1: Site Boundary Mackie House (Block 16 Section 7 Forrest)

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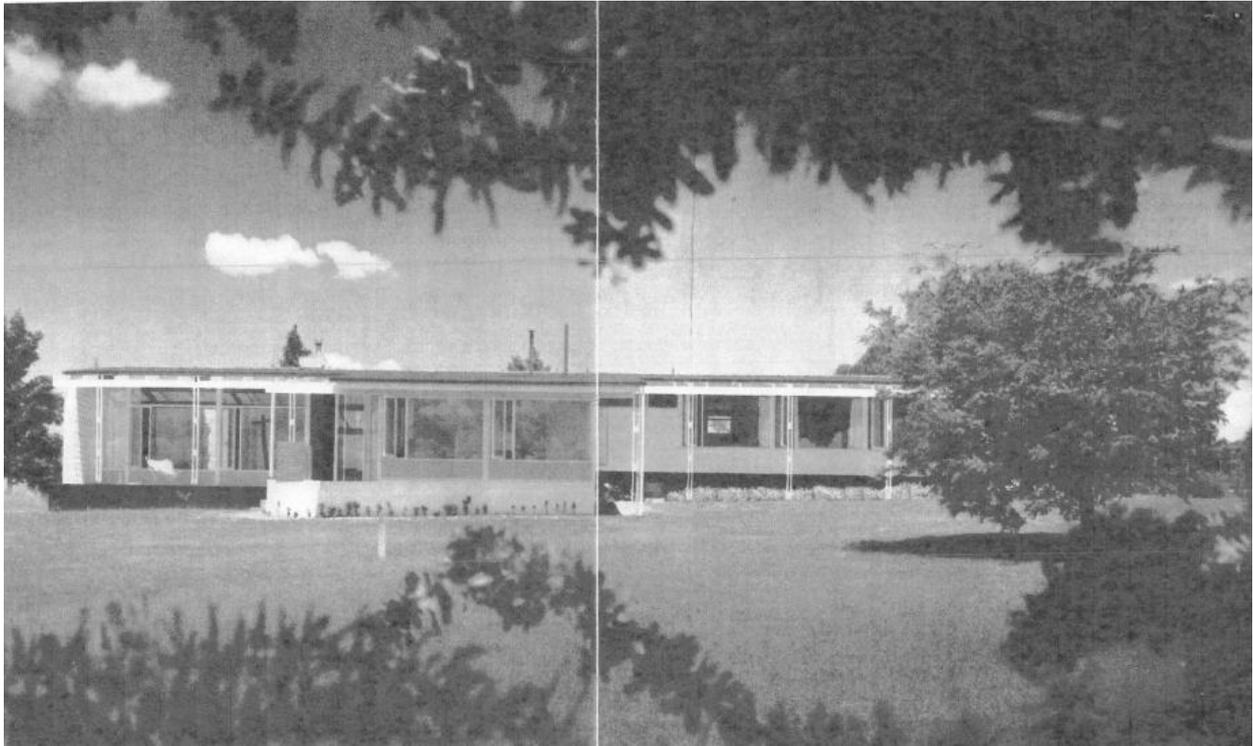


Image 2 Northern elevation of Mackie House post-construction (from Clerehan 1961).

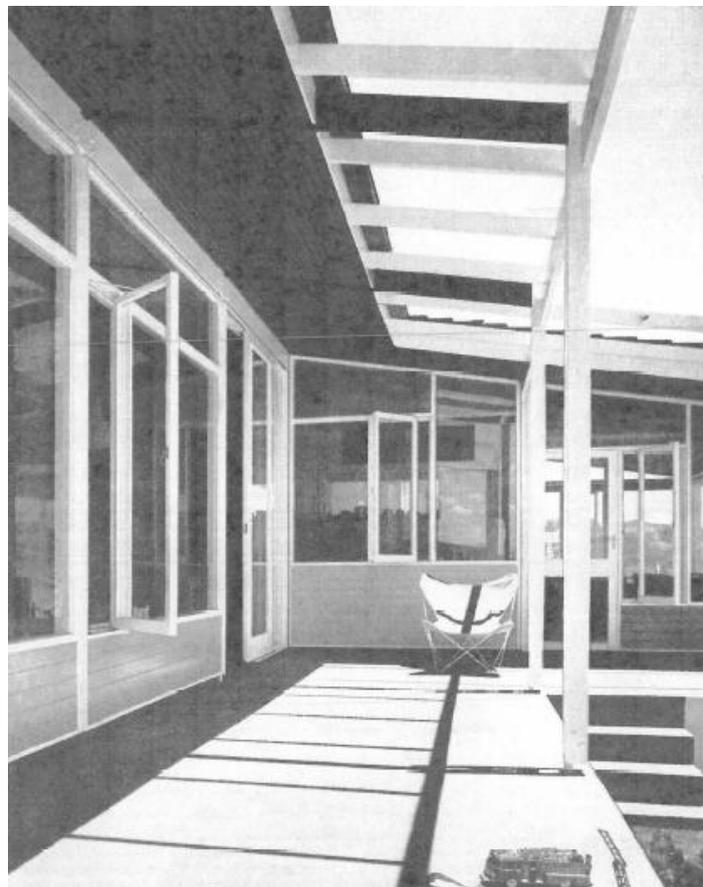


Image 3 Deck on the north side of house, post-construction. Image also shows original fenestration with large glass panels, as well as solar passivity of original house configuration (from Clerehan 1961).

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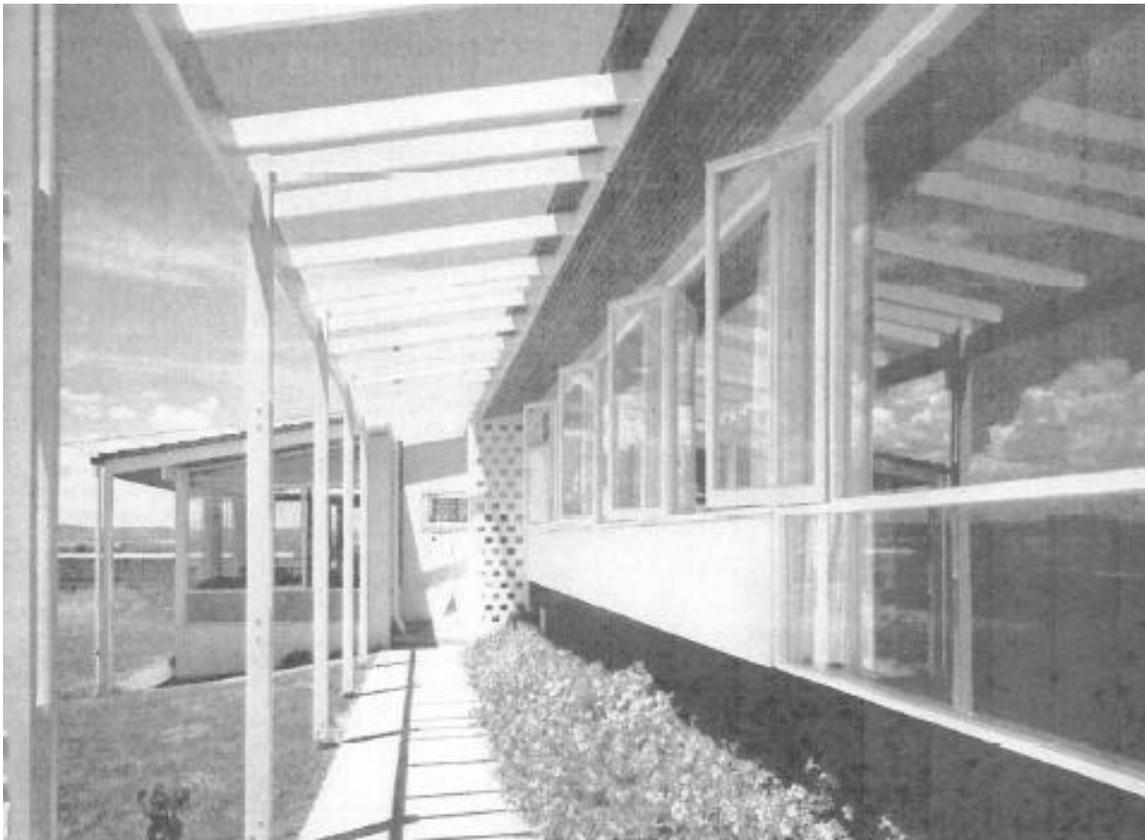


Image 4 Image taken from the west wing of Mackie house, showing 'clean lines' of original house configuration (Clerehan 1961).

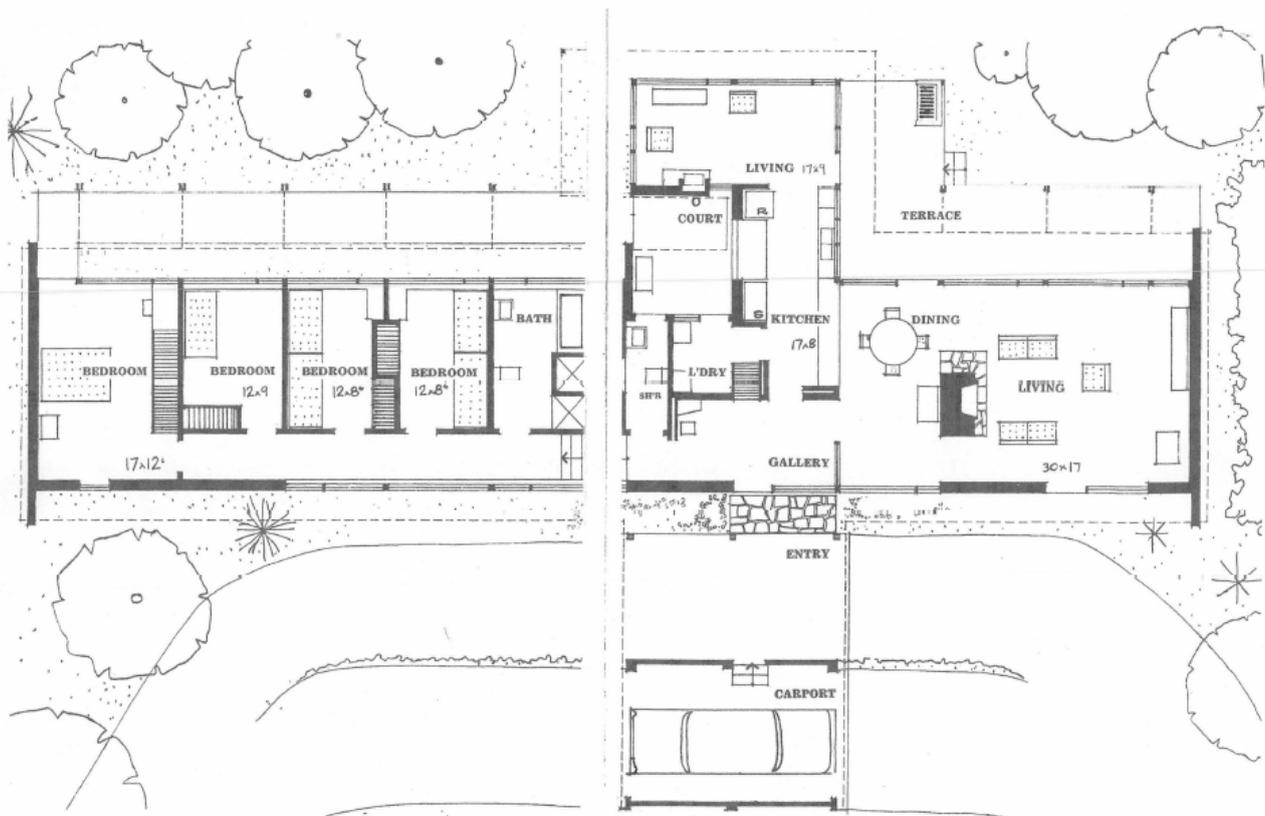


Image 5 Original floor plan of Mackie House (from Clerehan 1961).



Image 7 Extensions to the west wing interrupting original lines of northern elevation, compare with Image 4 (ACT Heritage 2016).



Image 8 Extensions to north of the house interrupt original lines of facade, compare with Image 2 and 3 (ACT Heritage 2016).



Image 9 1959 carport closed in as of 2016 to form garage (ACT Heritage 2016).



Image 10 Shape of steel portal framing evident, although structural framing is largely unexpressed within the house (ACT Heritage 2016).

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