SPLIT-LEVEL HOUSES

ISSUED BY THE
SMALL HOMES COUNCIL – BUILDING RESEARCH COUNCIL

UNIVERSITY OF ILLINOIS BULLETIN
VOLUME 58, NUMBER 24; NOVEMBER, 1960. Published seven times each month by the University of Illinois. Entered as second-class matter December 11, 1912, at the post office at Urbana, Illinois, under the Act of August 24, 1912. Office of Publication: 45 Administration Building (West), Urbana, Illinois.

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SPLIT-LEVEL HOUSES

Split-level houses are multi-level houses in which the succeeding levels are staggered and are separated by less than a full flight of stairs. The most common design is the tri-level arrangement with three basic floors: an intermediate level slightly above grade; an upper level adjacent to the intermediate level but up one-half flight of stairs; and a lower level one-half flight of stairs down from the intermediate level and directly underneath the upper level. Sometimes a fourth level is added either below or above the intermediate level.

The usual arrangement in a split-level house is to locate the living-dining areas and kitchen at mid-level, bedrooms on the upper level, and utility, recreation or work areas on the lower level. Variations are possible, of course. This circular presents several different arrangements of the various levels. Two plans, for instance, have only the entrance and formal living room at mid-level, with the kitchen, family room and utility area on the lower level.

Family interests and the terrain will determine what arrangement would be most suitable. For example, one family might be interested in having unfinished space in the lower level as a “rough and dirty” area for a workshop or various hobbies, while another family might prefer to finish the lower level more completely and use it in a different way.

The split-level house was originally designed to take advantage of sloping sites. But the general layout and convenience of the design gained such wide appeal that it soon was appearing on flat sites as well—even though on flat land the exterior appearance was not always good. The use of the split-level house on flat land is sometimes justifiable, however, on the basis of the site—particularly in areas with poor drainage and high ground water where the conventional basement would be completely impractical.

ADVANTAGES OF THE SPLIT-LEVEL

From a livability standpoint, the split-level design is attractive to homeowners because it can:

- Provide space that is more usable and accessible than that in a two-story house of the same total area: 1) The utility level, being higher than a conventional basement, is lighter, and more desirable and usable; 2) The distance from one level to the next is only six to eight steps.
- Define and separate the living, sleeping and recreation-utility areas more effectively than a one-story house of the same area. Sleeping areas have more privacy and quiet, since bedrooms are generally several feet off the ground.
- Generally provide a good interior circulation pattern, eliminating most cross-traffic just by the nature of the house plan.
- Give an opportunity for using the lower level for later expansion— particularly for extra bedrooms or recreational space.
- Take up less space on the lot than a one-story basementless house. (This could mean either that more of the lot would be available for outdoor living or that it would be possible to build on a smaller lot.)
From a cost standpoint, the split-level can offer these advantages:

- Provide some of the construction economies offered by the multi-story house — less area to be roofed, and less foundation and exterior wall than a one-story house of equivalent area.
- Permit the garage and utility area to be built in the least costly part of the house and left unfinished if desired.
- Require foundations little deeper than those necessary for basementless crawl space construction.
- It is impossible to make a positive statement to the effect that the split-level house is more or less economical than other types of houses. There are too many variables involved in accommodation and livability to make any such comparison very valid.

DISADVANTAGES OF THE SPLIT-LEVEL

The split-level house also has certain disadvantages in livability, design and construction. Before the prospective homeowner decides to build or buy a split-level house, therefore, he should take these disadvantages into consideration and weigh them against the plus features he feels would be offered by the split-level:

- **Livability:** Although stair-climbing is reduced over that required in a two-story house with a basement, the necessity for any steps at all may be a disadvantage to some, particularly to elderly or handicapped persons.
- **Design:** 1) The appearance of the split-level is best on a sloping site — only fair-to-poor on a flat site. In order to achieve the desired effect of a light, airy lower level on flat land, it may be necessary to raise the level to a height that results in an awkward design; 2) Small split-levels seldom have a good appearance from the outside. It is almost impossible to build a well-proportioned split-level of less than about 1600 square feet in area (this figure includes all levels) without an attached garage or carport. If the house is too small, the roof lines are chopped, the elevations awkward and the house too short for its added height.
- **Construction:** The split-level is more difficult to build than a one-story or two-story house because of the problems of interconnecting the staggered levels. It is not easily adapted to mass production techniques — thus the savings inherent in mass production are reduced.

ACCOMMODATIONS PROVIDED IN SPLIT-LEVEL PLANS

The house plans on the following pages were designed by the Small Homes Council to demonstrate some of the possibilities in split-level design. They have been planned for differing site conditions, and show various arrangements of the levels and of carport and garage locations. Special emphasis has been placed on gaining more livability at the lower level. Each plan provides the following:

- A living room functioning primarily as a reception and formal living area.
- A family room in combination with the kitchen or a recreation room.
- A separate entrance hall.
- A master bedroom and two secondary bedrooms of size and arrangement to allow for more than minimum furniture. (At least eight lineal feet of closet space is provided in the master bedroom, four lineal feet in each of the other bedrooms.)
- At least one-and-a-half baths, with two or two-and-a-half baths where the need exists.
- A kitchen that scores well in accordance with SHC circular C5.3, Kitchen Planning Standards.
- Space for laundry equipment as recommended in SHC circular C5.4, Laundry Areas.
- Plenty of storage both inside and out.
- A mechanical room (on an outside wall) large enough for air-conditioning equipment.
- Car storage, either garage or carport.

Furniture arrangement was planned for as an integral part of the design, influencing both room size and arrangement. The size of each house was determined by the minimum amount of space that would adequately and conveniently meet the objectives listed above. Since the major emphasis was placed on providing space and arrangement for family living, the living rooms usually were planned as more formal receiving areas and are, for the most part, smaller in size than usual. Although the houses show various types of roofs and a variety of construction details, they are planned so they may be adapted to construction with nail-glued roof trusses and the wall panel framing system developed by the Small Homes Council.
The basic plan of this house follows the scheme most common in split-level arrangements, with the entry, formal living room, kitchen and dining areas located on the main floor at grade level, and mechanical equipment, laundry and recreation room on the lower level. Since the house is designed for a flat lot, a large area has been excavated to form an outdoor patio adjacent to and level with the recreation room. This patio is approximately six steps below the ground level and is surrounded by a low retaining wall. If the recreation room is used as a shop and hobby area, the patio could be eliminated at the owner's discretion. The plan is equally adaptable to a sloping lot.

One of the outstanding features of this house is the amount of space devoted to the formal living and dining areas. Focal point of the large living room is the fireplace with its raised hearth extending the length of the end wall. Part of the hearth can be used as a low seat. A large free-standing bookcase which does not reach the ceiling might be used to separate the living and dining areas. If a completely separated formal dining room is desired, the plan will also permit this variation. For daily dining, there is an ample breakfast area at one end of the kitchen.

From the entryway, stairs lead to both upper and lower levels. The master bedroom suite consists of a large twin bedroom with closet alcove and private bath. Double beds can be accommodated in the two smaller bedrooms, but these are each intended for normal use by only one family member, since only

*Working drawings for the house plans shown in this circular are not available from the Small Homes Council, but may be secured by employing the services of a licensed architect to develop working drawings for you, using the plans for reference.*
single closets are provided. A second bath serves these two bedrooms.

As shown, the narrow end of the house faces the street, and privacy is given to the living areas by a masonry wall extending across the front. (However, the house could be placed with the long façade parallel to the street and the garage rotated to adjust to this orientation.) The major rooms are located on one side of the house overlooking an outdoor area which would preferably be oriented to the south. Maximum outdoor living space could be provided here by placing the house as close as possible to the lot line on the garage side.

A continuous, gradually-sloping roof covers the entire building and ties the house together as a unit. This roof is framed in a conventional manner with roof joists. However, though pleasing architecturally, this unified roof framing will be more expensive than framing the different levels independently, since the walls will be of non-uniform height. For greater economy, trusses may be used.
Designed especially for use on a site that slopes downward to the rear, this house features a spacious formal living room a story-and-a-half high, with sloping ceiling and a fireplace. The living room is at mid-level. A large-size family room and the kitchen are located six steps down on the lower level. The family room doubles as a dining room and breakfast area, thus eliminating the duplication of eating facilities. Large glass areas open out at the rear of the family room onto a patio, providing an excellent arrangement for outdoor living. (The best orientation would place the rear of the house to the south, where the large glass areas would be protected by the two-foot overhang of the second floor.)

The lower level also includes the laundry, mechanical room and a half-bath. Some room is available for hobbies, especially if air conditioning is not installed. The upper level provides a generous-sized master bedroom with private bath and closets with easy access. A second bath serves the other two bedrooms. An interesting feature of this plan is the possibility of opening up the wall of the master bedroom into the living room to give the effect of a high balcony. Screens could be used to close off the bedroom, and the sloped ceiling over the living room could be carried through to the master bedroom if desired. The arrangement of the rooms and doors in the upper level minimizes the lack of privacy which could result from an open balcony.

The carport has been placed in front to cut down the overall building width. The service area between the carport and the house is shielded from the carport by a useful outside masonry storage wall and from the house entrance by a decorative screen. A garage could be erected instead of the carport. While the design could be adapted for standard roof trusses, it is enhanced by the use of the sloping ceiling over the living room area. This could be done with sloping roof rafters, or a flatter slope could be achieved with the Small Homes Council sloped-ceiling roof frame. In this instance the trusses would also carry the sloped ceiling to the master bedroom. For economy’s sake, trusses with a horizontal bottom chord could be used over the remaining bedrooms.
CIRCULAR C2.5 SPLIT-LEVEL HOUSES

UPPER LEVEL

BEDROOM
18'-10" x 11'-9"

BEDROOM
18'-10" x 11'-9"

BEDROOM
18'-10" x 14'-9"

Balcony

Doors

Upper part of living room

INSIDE AREA 824 SQ. FT.

INTERMEDIATE AND LOWER LEVELS

KITCHEN
15'-6" x 8'-6"

DINING

FAMILY LIVING
19'-10" x 11'-6"

FORMAL LIVING
20'-6" x 11'-6"

INSIDE AREA 1056 SQ. FT.
This design, intended for a lot that slopes downward to the side, is of somewhat unusual arrangement in that the kitchen-dining area is located on the lower level with the family room. Since the family room is merely an extension of the kitchen (the dining table is all that defines the two areas), the mother has an excellent opportunity to supervise the children's play and enjoy family activities while working in the kitchen or laundry. The bath immediately inside the service entrance serves as a mud room where anyone coming in from the yard can take off dirty boots and hang up wet clothing before entering the rest of the house. Limited shop space is available in the equipment room.

Since most of the every-day activity would take place on the lower level, this plan should not be attempted on a flat site unless the number of steps between the intermediate and lower level is reduced and enough earth excavated adjacent to the family room to provide a sunken outdoor patio.

Only the spacious formal living room is at mid-level. A dead-end room with no thru traffic, it has a large fireplace along the end wall. Two of the three bedrooms in the upper level can easily accommodate double beds. The master bedroom has a private bath; the other bedrooms have another full bath.

The garage is on a fourth level, midway between the intermediate and lower level, allowing easy and convenient entrance from the garage or carport to the house. Ample exterior storage for bicycles, yard equipment and the like is provided in the carport or garage.

Two possible exteriors are presented. The first is designed for the use of roof trusses to form a separate roof for each section of the house. The second features a continuous, unbroken roof that covers the entire house. In the two-story section of the latter house, the roof is framed with trusses; in the entry and living area, exposed beams support the sloping roof. The post and beam construction is repeated in the flat roof treatment of the carport.
This plan is designed for a lot which slopes upward to the rear. As shown here, the short dimension of the house faces the street and the carport is entered by a curving driveway. The house is also readily adaptable to a site which slopes from side to side.

Of the different plans presented in this circular, this is the only one in which the family room and formal living room are not only on the same level, but are adjacent to each other. The formal living room is located so that it may be closed off to form a reception area; by opening the sliding doors it can be used in combination with the family room for large gatherings. The family room is large and allows room for eating adjacent to the kitchen. A two-way through fireplace is located so as to serve both living and family room. A deck could be added to the rear as shown.

Another interesting feature of the plan is the dual entrance arrangement. Undoubtedly, the family will use the inside stairway from the carport, which permits easy access to the stair hall and the family room-kitchen areas. On the other hand, guests will probably use the outside stairway.
to reach the main entry of the house. By closing the sliding door between the entry and the stair hall, all family traffic between the three levels can be isolated from the formal living room.

All three bedrooms in the upper level are ample and have good storage facilities. The master bedroom has its own private bath with shower, and a second full bath with tub serves the other two bedrooms. A half-bath has also been provided at mid-level.

Either a carport or a garage can be used in the lower level. (The main steps must be rearranged if a garage is used.) Also on this level are the laundry and the heating and air-conditioning room. The extra space in the heating and air-conditioning room could be used either for storage or a workshop.

The perspective of the house shows the use of post and beam construction for the roof of the intermediate level, while the upper level is designed for truss roof construction. As an option, the roof of the intermediate level may also be constructed with trusses. The lower level of the house is built of solid masonry, while upper levels can be built conventionally, or with the panel system.
A variation of the plan shown on the preceding page, this plan transfers the main entrance to the lower level, where it is shielded from the weather by the structure of the bedroom level above. To accomplish this, it has been necessary to create a fourth level six steps down from the entry level to accommodate the heating and air-conditioning equipment. The kitchen has been enlarged and rearranged to allow a dining area in the kitchen proper, which is preferred by some persons. There is still ample space in the family living area for more formal dining.

The exterior design of the house has been varied to show the effect of continuing the sloping roof of the upper level to cover the intermediate level. A garage replaces the carport, and a masonry planter wall extends across the front of the house.