Even though not placed under the white, hot light of public display and inspection, any house anywhere is not the private matter that the family, building for its own occupancy, would like to think. Each shelter unit is of interest to all who will see it until time gathers its constituent parts into the depositories of used building supplies. Taken together the houses built during the next few years will set the pattern for the coming generation and possibly beyond. The necessity for sound thinking on the subject is readily apparent.

In case study house No. 11, as in all the case study houses, Arts & Architecture is client and corporative home builder. The aim has been to attain sound modern design and to strike the spark for distinguished transcendent modern design. Experiences and reactions, in the process of designing and building this case study house, will be profitable to others in the same circumstances in which we have placed ourselves. Now it is appropriate that we sit down for a breather and take a calm critical look at what we have wrought.

CASE STUDY HOUSE NUMBER

General Contractor: Myers Bros.
Furniture: Van Keppel-Green
Drapes and Fabrics: Modern House
Landscaping: Evans & Reeves Nurseries
House photographs by Julius Shulman
Construction photographs by Jack Case
A proper starting point for a critical analysis of house No. 11 is a statement of the basic principles of modern architecture. These are few and simple: the plan of the house should be determined by what is required to supply the needs of the particular family as established by its way of living; the plan should determine the exterior of the house which in turn should express the plan clearly for all to see; esthetic effects should be obtained by direct, efficient, economical use of modern technologically advanced construction methods and materials. Order, fitness, and simplicity should govern all phases of the work. Observance of these fundamental rules produces in the house a genuine naturalness and makes possible an honest, sincere fulfillment of real needs. The ensuing naturalness is especially evidenced by the omission of sham; for example, there are no atiase shutters nailed fast to the wall. Likewise there is not forceful striving for effect with, say, corner windows lacking particular significance.

Such rules allow a house to do and supply everything that can be reasonably asked of it. That is a distinguishing mark between building a house in traditional styles and designing and building a modern house. The traditional house, produced in a strait jacket of inflexible rules begets unhappy results which can be direly foreseen. Modern planning is free. Greater livability, economical ease of maintenance, enlarged spaciousness result when the job is well done. Particularly notable in this small house is its compact plan, ease of circulation, crisp, clean lines, generous glass areas, dry-wall construction, radiant heating, application of modern materials to appropriate uses. An adequate setting is provided within which the family can conveniently seek and obtain the satisfaction of its desires and the realization of its interests.

The design and construction were carried out under the extreme difficulties of critical material shortages and the unpredictable circumstances of recent and alas, of current days. Because of the compromises necessary for such reasons and for other reasons which were often beyond control, the results attained are not altogether what we had hoped. We did not soar as high—nor as fast—as we wished. Since the finished house sometimes falls short in minor respects of expectations, rarely are client, architect, and builder radiantly happy with all aspects of a house as produced. One feels that this feature might better have been changed; that arrangement altered. All usually come down with slight ambulant cases of planning surfeit and bewildered frustration.

Measured on the basis of fundamental rules, house No. 11 merits reasonably high grades. The house was planned for a couple with a child of teen-age. Separation of independent living quarters for these two groups of interest, or other possible family grouping, connected by rooms for common use—living room, kitchen, and utility room—is competently provided with efficient utilization of space, ease of circulation, and privacy. Thus fulfillment of the needs of the family has determined the plan. That the exterior clearly expresses the plan is readily apparent to a casual observer.

DESIGNED BY J. R. DAVIDSON
Striking aesthetic effects (above) are obtained with economy by direct, suitable, and efficient use of modern materials such as plywood, glass in large areas, etc., by fineness of proportions, by effective masses, skillful colors, and intelligent reliance on natural textures. Underlying all is a sense of logic, appropriateness, and simplicity.

Among the commendable features of the house are the thoughtful orientation and placement on the lot and the carefully worked-out plan of circulation. The position of the house on its lot allows easy access to the garage from the main road and thence directly to the service portions of the house—the utility room and the kitchen. The kitchen, dressing room, and east bathroom also face a side road. This disposition reserves the quieter and southern (sunny for winter warmth) side of the house for the living and sleeping rooms.

Separate entrance (shown below) is provided to the west bedroom-study, which with connected bath and separate outdoor living space becomes a private apartment. This feature is worth more than an additional year on any mortgage.

From the side road entrance is through the front lobby directly into the living room, or into the kitchen, or into dressing room and adjoining bath.
The general circulation of the house (shown above) is well planned to avoid use of the living room as a cross-traffic area and inter-room circulation route, a common fault in many small houses which is most annoying when guests are present. The entrance hall (shown above right) whose decorative glass screen gives privacy to the dining corner of the living room and the east dressing-sleeping area with the kitchen.
Convenient access to the east bathroom (shown below) is through the dressing room. This allows guest-visitors to use its facilities with minimum inconvenience.
Materials—Some of the technologically advanced materials available at the present time are used appropriately and efficiently. For example, stucco, plywood, and glass in large lights have been allowed to display their rich natural textures. Precious and meaningless ornament has been omitted. Even the presence of the commonplace but necessary vent ducts and vent pipes which disfigure the average roof have been skillfully minimized. Careful attention to small details is a characteristic of the house.

A particularly noteworthy application of modern materials is the interior dry-wall use of plywood. Ease of maintenance, excellent acoustical properties, avoidance of mess and loss of time in plastering, and annoying future plaster cracks, make this a wise choice. The pattern of joints on walls and ceiling and the natural texture of the wood are the sole decorative treatment—pleasing and very economical.

The problem of furnishing the house was assigned to Van Kappel-Green. The living room with one wall of sliding glass doors opening into the patio and ceiling and walls of birch panels is divided into two areas—dining and living. The dining area at one end of the room, accessible to the kitchen, is furnished by the practical method of individual chairs grouped at right angles on two sides of a coffee-dining table. As the chairs are free and can be moved around the room, they are far more practical than the usual corner settee or built-in seat often used for this type of arrangement. The chairs are so designed that they may be used satisfactorily for an entire evening. The handsome rectangular table can be used either as a coffee table, or raised to dining height by dropping the rectangular legs. The dining and living room areas of the room are divided only by a red rose rug on the black asphalt tile floor. It is an excellent idea to achieve spaciousness but requires great skill in furnishing so that the two groups do not become too isolated for an evening of conversation. This area with birch panels, built-in lighting, fireplace, sliding glass wall to patio, has so much interest in its own right that it needed careful handling. This has been well done in the balance of color—the rug in the living area is of a similar red-rose color as the chairs in the dining end, although of slightly different tone.

The master bedroom with a glass wall that is a continuation of the living room wall requires, and has only the necessities—a chest and beds. The headboard forms a head rest and has two small cabinets at each side, the doors of which drop easily to form night tables. As there are plenty of closets only a small chest is necessary, and this is one of Van-Kappe's "neatest" designs. The same natural linen fabric of the living room draperies is used for bedroom draperies and bedspread. The beige carpet continues from the bedroom into the dressing room, as does the rest of the color scheme—peach and brown. The dressing table is in peach lacquer, matching the wall color, with a mottled gray, Formica top.

The second bedroom, designed especially for a girl of teen-age, ought to delight child or adult. It has a small bath and private patio. The bookshelves and combination table and chest of drawers form an adequate working surface and storage space. The desk chair, with seat and back of twine, is pleasing. The slip covered twin beds arranged against a corner case as head rest allows sleeping space for a guest. There are ample built-in wardrobes and chest space. The color scheme—gray green carpet, a somewhat darker ceiling, deep beige walls, black lacquered furniture, and gay striped bedspreads and pillows—has achieved the right note of sophistication.

The patio furniture is of metal painted chartreuse, upholstered in natural twine. The table tops are of translucent glass.—ALYNE WHALEN.
Radiant Heating — Residents of Southern California should particularly note the intelligent thought given to the heating problem. Too often the winter sun filters through small peep hole windows and, after sundown, inefficient gas wall-heaters are hopefully depended upon to provide comfort in poorly insulated houses. In case study house No. 11 the large glass areas on the south side have overhangs planned to exclude the warm summer sun but to utilize the advantages of solar warmth in winter. The house is further provided with radiant panel heating, placed out of sight beneath the concrete floor slab. This heating system banishes unsightly wall heaters, floor or wall grills, and radiators. An increase of space and flexibility are thus gained. Deposits of dirt and soot on walls and ceiling by the usual heating methods are obviated. The tested advantages are innumerable. From an aesthetic and from a practical health point of view, radiant heating is considered the best current solution to heating problems.

Exterior Design—The desirable nestling of the house close to the ground (shown below) is achieved with such success that the house seems a natural organic outgrowth from the soil. This is made possible by the use of the concrete floor slab placed practically on top of the existing soil bringing the floor level almost flush with the existing grade. Excavation was avoided and the extra expense of carrying foundations up to provide crawl space under the flooring supports or joists was saved. The provision of that free space is required by most building codes for ventilation and inspection of floor timbers and their protection from termites. The walls and the roof lines are interestingly varied and gain from changes in shape and projection. The static, unvaried aspect of four walls and roof is avoided. The very special skill of the designer is here evidenced. The walls which obtain a desirable privacy for the patio are by color and construction integrated with the house walls. The door of the garage is well handled to minimize the void which such a door commonly-punches in the facade. A hedge continuing the splayed angle of the service wall to the south lot line provides economical and effective privacy to patio and entrance for the bedroom-study on that side. The landscaping has been designed for labor-and-money-saving maintenance. Not many small interesting houses can boast of equally attractive blandishments. The materials used on the outside are limited in number and are kept under strict control. Happily no attempt is made to make one material look like another more expensive one or to serve where another would do a better job.
The exteriors have been successfully handled. We believe that will be appreciated on first sight. Particularly difficult was the north side, which could easily have lost a feeling of repose in striving for an adequate solution of a complex problem. This north side appears relatively narrow because of the dominating projection of the garage. The problem was to provide space for a large glazed entrance door and side light, and for a series of raised windows in bath, dressing room, kitchen, and eating area together with ventilating louvers for the cooler space. Only those who have grappled with similar complexities will be fully cognizant of how well it has been handled.

Generally the exterior is knit together and unified by the finished color scheme of a designer with an expert color sense. Two warm tones are harmoniously blended—a lighter one for the wall spaces and a darker one for the wood trim. An impression of additional spaciousness is thus gained for this minimal house.

The horizontal lines emphasize the organic unity of house with soil. Strong horizontal parapet lines terminate the east wall and also the north and west wall of the garage. A slightly pitched roof is contrasted with the parapeted roof over the garage. The separate function of the garage is thus expressed. The areas of the room are subordinate to the masses of the walls—and that is as it should be.

A four-foot eave overhang on the south side protects the large, generous glass areas from the hot summer noonday sun but is accurately calculated to admit the warming winter noonday sun. This wide overhang repeated on the north wall adds a strong sweeping horizontal accent. Deft covering with plywood makes a smooth restful soffit with a self-effacing, continuously screened vent strip allowing air to circulate in the attic space above the ceiling insulation. This arrangement protects the roof wood construction from dry rot and augments the efficiency of the ceiling insulation in lowering inside summer temperatures.
The windows on the north side of the house in the kitchen, dressing room, and bath are relatively high to provide light and privacy. The south side of the living room and east bedroom are amply lighted through large glazed sliding doors and fixed windows looking into the patio. A deep capacious pocket for the living room draperies, when drawn back, has been provided. The patio and the living room can be merged into one indoor outdoor living area. The ceiling height glass areas increase the evenness of natural light distribution in the room.

The patio wall is low enough for sight of the sea and distant hills from the patio and the living room, yet high enough to obtain desirable privacy and seclusion. Planting spaces in the patio tone down its walled severity. Additional shade is obtained from shrubs and trees. The use possibilities of the patio are further increased by an overhead floodlight. The night view from the living room of the cheerfully lighted outside area becomes a very interesting enlargement of the interior.
A fireplace (above left) adds to the inviting atmosphere of the living room. The color, size, and texture of the particular bricks used blend with the adjoining walls by a careful choice of color for the walls.

Textured glass (above right) is effectively used in the main entrance door and sidelight and also to form a screen between the entrance hall and the living room.

Progressive modern design eliminates the separate dining room in the small home in favor of a combined living-dining room. The success of such practice is in direct proportion to the care in planning and providing for adequate storage and ease of access to and from the kitchen. The kitchen is the efficient kind of kitchen found in the better planned houses. It is practical and will serve its purpose well. The utility room is walled off in a separate area opening conveniently on the (drying) service yard.
Storage—In this house ample storage space for clothes and shoes is apportioned. The best modern practice provides convenient, easily accessible built-in storage areas especially designed and fitted for specific items—sports and hobby equipment, movie projectors, card tables, and all the other paraphernalia of living and entertaining which create a disturbing storage situation in the average house. Closets are good sound deadeners and the placing of one between the bathroom and bedroom is an excellent arrangement. Overhead storage for such items as rarely used travel bags and similar possessions might be provided in the space above the low-ceilinged passage between the east bedroom and dressing room. Useful storage space is wisely provided in the garages over the hood of the car. The broader aspects of modern home design require that more equipment should be built in. Properly prefabricated equipment rather than individually designed items is the economical answer for the small house.