THE ARCHITECTURAL FORUM

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HOUSES FOR DEFENSE

Private architects prove that a Government project can be attractive at low cost and without sacrifice of speed. Site planning and design studies with models precede 840 handsome houses.

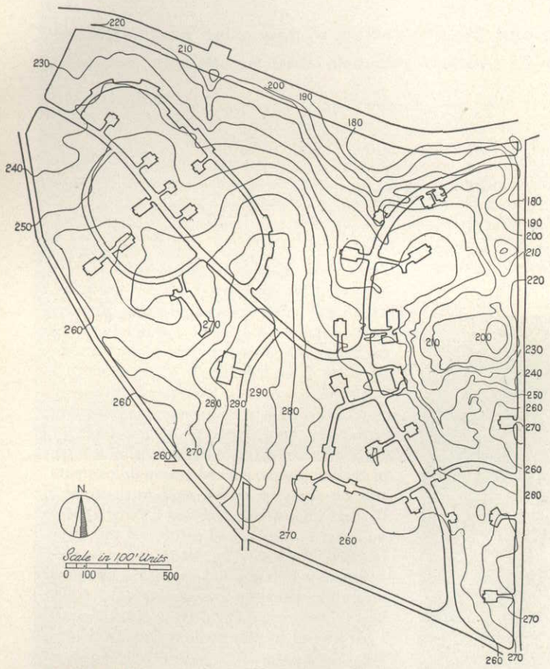
Big and convincing is the argument for the participation of private architects in defense housing offered by Westpark, an 840-unit Government project in the Naval shipbuilding town of Bremerton, Wash. It was built quickly: the first units were opened for occupancy just eight months after the architects were retained, the balance during the next three months of rapid-fire construction activity. It was built economically: dwelling facilities cost an average of $2,258 per unit, were raised to only $3,344 by the inclusion of land, utilities, site improvements, landscaping, community and other non-dwelling facilities. And, despite this speed and economy, Westpark is attractive: the natural beauty of the wooded tract was enhanced by reasonable site planning, by simple but effective landscaping and, most important, by good architectural design—all of which were carefully studied in scale models as well as on paper. Seldom does defense housing receive such design attention, and seldom do the finished projects compare with Westpark.

Roger Dudley

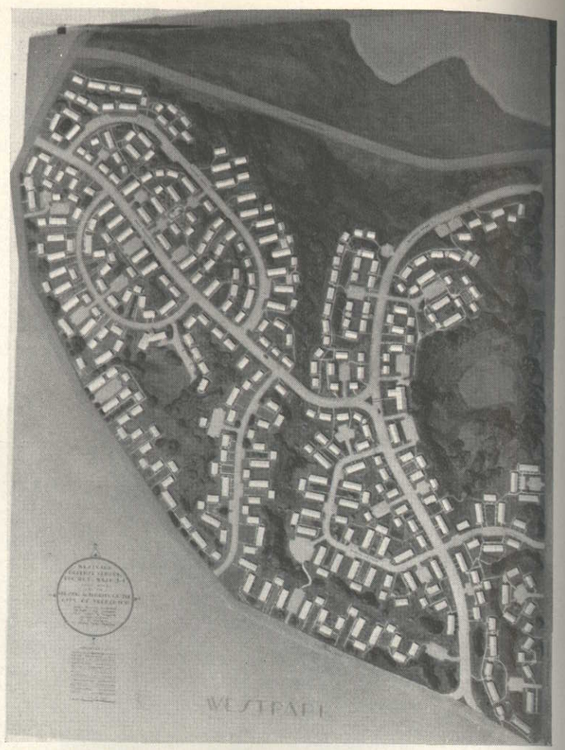
Background. With 10,000 Navy enlisted men and civilian shipyard workers crowding its 15,000 peacetime population, Bremerton recognized the need for new housing early in the defense program. In September 1940, THE FORUM (p. 4) reported that "garages have been converted into bedrooms; beach houses are commanding $50 rents; the municipal jail sleeps seven or eight newcomers per night; others sleep in trailer camps, parked automobiles, tents and on the city park's well worn grass." By that time Bremerton had formed a local housing authority, had petitioned the U. S. Housing Authority for loans and subsidies with which to build and operate 1,400 units of public housing to supplement the 500 new units expected of private enterprise.

Approved by the Federal Defense Housing Coordinator, this public program was soon underway, despite the opposition of local property owners and the Apartment Operators Assn. They recalled that during World War I Government built in Bremerton a hotel, an apartment project and some 250 scattered houses whose boarding-up at

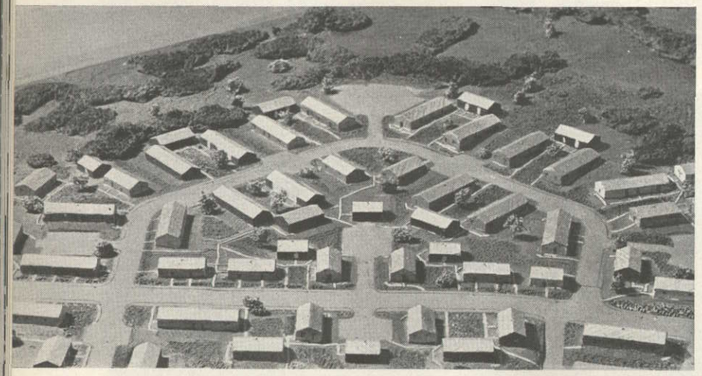
HOUSES FOR DEFENSE — BREMERTON, WASH.

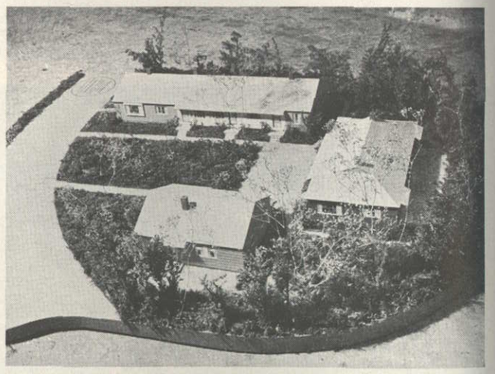


CONTOUR MAP



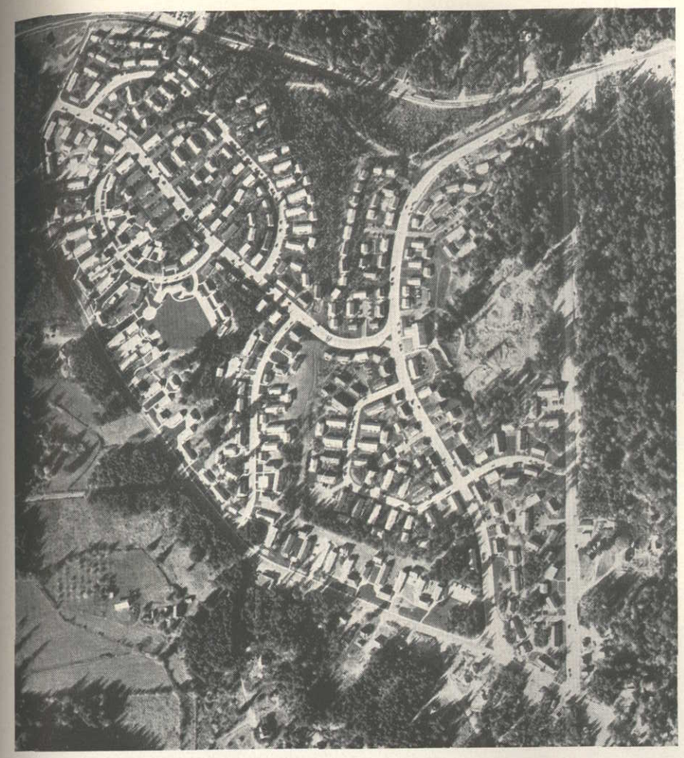
SITE PLAN MODEL





DETAIL MODELS

Site plan of Westpark covers 95 acres, makes room for 840 dwelling units in 357 one-, two- and four-family buildings. It was developed by Architects Naramore, Grainger & Johanson in collaboration with Landscape Architect Butler Sturtevant and Civil Engineer Edward A. Duffy. (Other participating professionals: Mechanical Engineer Lincoln Bouillon, Structural Engineer Edwin L. Stranberg and the contractor, Western and West Coast Construction Co.) Solving the problem presented by rough terrain with the aid of the scale models presented on this page, the site planners arranged the buildings in small intimate groups, avoided the atmosphere of regimentation so often apparent in large scale housing projects.



AIR VIEW

Roger Dudley

In real life, Westpark from the air (top view) closely resembles the site plan model (opposite) from which it sprang. Likewise, the three-building court (viewed immediately above) which *includes a hipped* roof variation of the standard two-family building. Note use of different exterior finishes and colors.

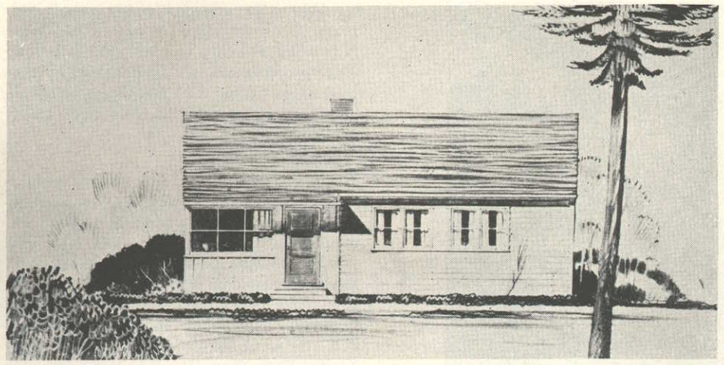
the Armistice crippled realty values for years. However, since the new World War II housing is being concentrated in a few large projects and will be operated by the Government after *the emergency, many of* the fears of private interests have been quelled.

Progress. First of Bremerton's new public projects is Westpark—originally conceived as a 600-unit defense development to be financed with USHA funds and later expanded to 840 units with Lanham Act funds entrusted to USHA. On August 14, 1940, Architects Floyd A. Naramore, Clyde Grainger and Perry B. Johanson from three different Seattle offices were retained by the Bremerton Housing Authority. In six weeks they had completed the preliminary drawings for the first 600 units; in three more, the working drawings and specifications. Bids were opened on November 13, and after ten days' consideration the $1.8 million lump sum contract was awarded to Seattle's Western and West Coast Construction Co. The "proceed order" was issued on December 11 with the requirement that the 600 dwelling units, eight laundry buildings and one community building be completed in 150 days—by March 9.

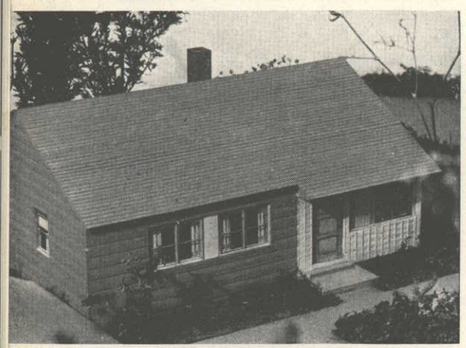
Meanwhile (January 29), the contractors were awarded another contract of about $686,000 covering the 240 additional units and a second community building designed by the same architects for the same site. These were completed and occupied only ten days after the original group—on July 12. During the construction of these "permanent" houses and those in Bremerton's three other USHA-aided defense projects (all 1,400 units are now complete), Government found it necessary to throw up 500 single-worker dormitory units and to rush a squadron of 200 family trailers to stop the local housing gap.

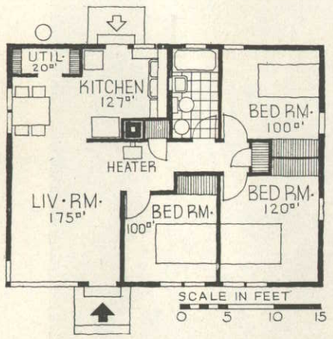
Land planning. Located about three miles west of the city center and the booming Navy Yard, Westpark covers about 95 acres of moderately rough terrain overlooking one of the many salt water bays which surround Bremerton. Much of the logged-off land was covered with a second growth of fir, pine, cedar and hemlock; some had been developed into small farms; one deep ravine had served as a garbage dump. Bounded on one side by a State highway and its bus line to Bremerton, *the property* is also conveniently near a number of grocery and miscellaneous small stores.

Such was the site handed the architects who, in collaboration with Landscape Architect Butler Sturtevant, were to develop it into an 840-family community. Most important factor in the land planning was the terrain. A north-south ridge divides the site almost in half, and several areas were considered too steep for economical development—the elevation varies 125 ft. between the low and high points. To minimize grading expenses and thus to preserve *a maximum amount* of existing



ONE-FAMILY DWELLING





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growth, streets and the buildings were laid out to follow the contours.

Another controlling factor behind the site development was the proposed post-war use of the project. While it will house primarily civilian Navy Yard employes "for the duration," Westpark will subsequently be occupied for short terms (60-90 days) by the families of Navy enlisted personnel on shore leave. In view of this ultimate short-term tenancy, it was decided to cut tenant and project maintenance to the minimum by leaving most of the open areas in their natural state and by planting the other areas with slow growing ground covers. For this purpose Landscape Architect Sturtevant specified ivy, roses and hypericum, maintenance expenses for which will be above average for the first few years but next to nothing thereafter.

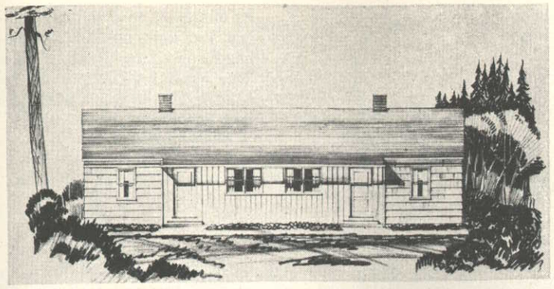
To the same end, backyards are graveled and the numerous children's play areas are bituminous paved. Only lawn areas are around the two community buildings and their adjacent play fields, one of which was formerly the city garbage dump. The landscape architect's task was somewhat simplified by the presence on the site of such shrubs as broadleafed evergreens, madrona, mahonia, huckleberry and dogwood trees. "To add sparkle to the dull winter months," he specified the planting of large numbers of birch trees, set forsythia bushes against the masses of green background.

As shown in the accompanying photographs, the land planning problem was carefully studied with the aid of scale models—first, the relation of buildings to the land and, then, with larger models, the relation of the buildings to each other. Note the close parallel between the photographs of the models (p. 410) and the finished project (p. 411).

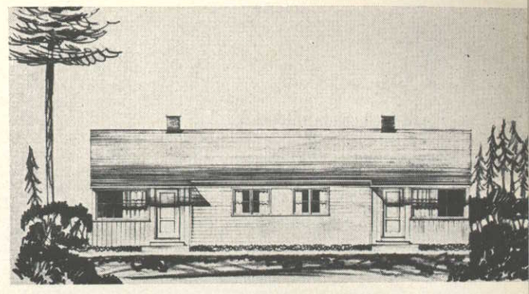
Architecture. Much the same type of study preceded the final design of the houses—even to the development of the minutely accurate scale models shown on these two pages. Since it was estimated that most of Bremerton's current and post-war housing demand would come from two-person families, it was logical that Westpark should be comprised primarily of one-bedroom dwelling units. And, since the project is located at the edge of a suburban area, it was decided to preserve

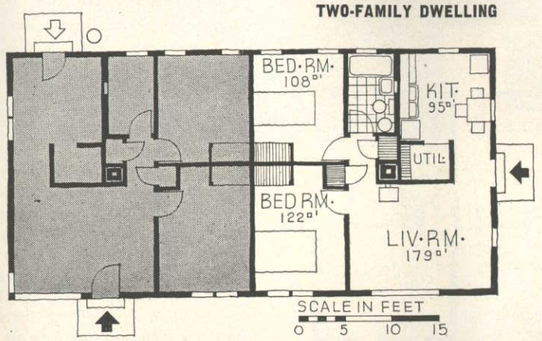
(Text continued on page 414)

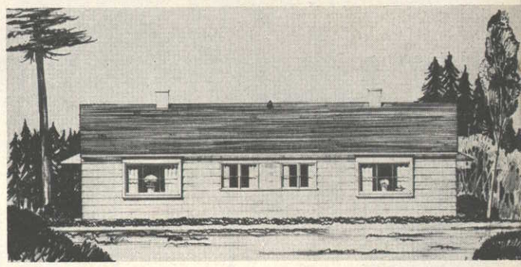
One-family house plan shown above jibes with the rendered elevation and, when reversed, with the scale model. Completed house (left) is based on the same plan, but displays one of several variations in fenestration. According to the architects, "The floor plans are all developments of minimum requirements of the U. S. Housing Authority. The attempt was made in the three-bedroom plan to have living, dining and kitchen areas open in sequence with a continuous ceiling line to give an appearance of greater area" (see interior view, p. 415).



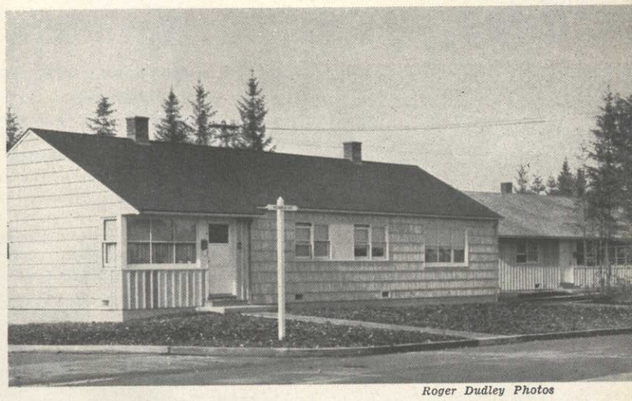
TWO-FAMILY DWELLING





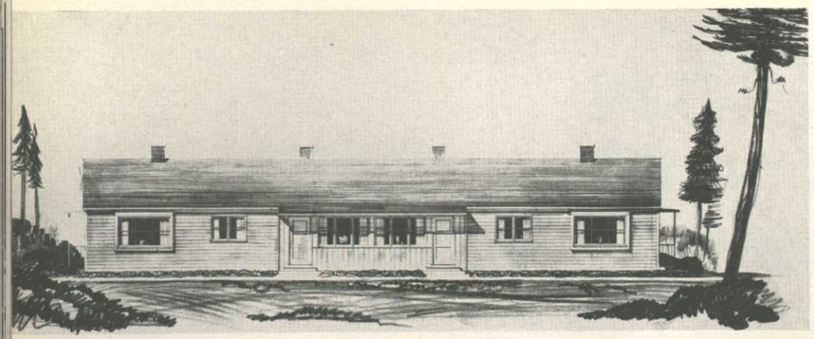


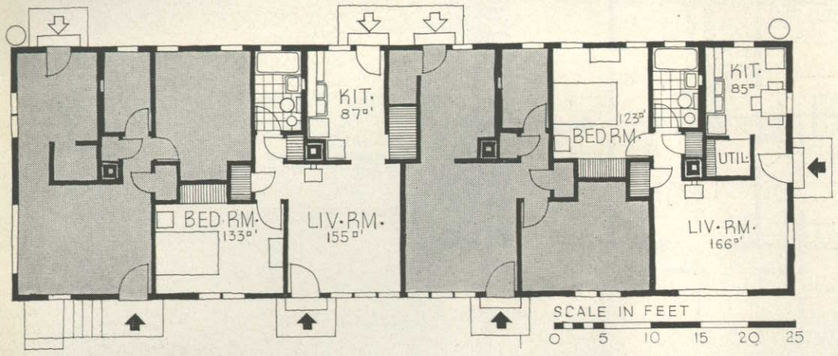
MODEL



Roger Dudley Photos

Two-family buildings shown completed on this page also spring from one standard floor plan, for which three exterior variations were rendered. Thus, the completed building to the right follows in every detail the third rendered exterior variation, while the building above it is a combination of the second and third rendered variations. And, the model pictured above is like the first rendered variation, except for its hipped roof. Note the use of three different exterior materials—all native wood: shingles, clapboards and vertical boards and battens.





FOUR-FAMILY DWELLING

Best illustrations of the plan-to-rendering-to-model-to-building sequence are these photographs of Westpark's four-family building. Particularly noteworthy are the large windows and closets, the compact arrangement of plumbing fixtures. Heat is supplied by oil-fired space units; cooking and water heating is by gas; refrigeration, by electricity. Eleven detached laundry buildings, strategically spotted about the 95 acre tract, supplement the laundry trays built in combination with all kitchen sinks.

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its character as much as possible by limiting the new buildings to one story in height and four dwelling units in length. This reasoning explains the breakdown of Westpark into its various building and dwelling unit sizes:

392	1-BR units in	98	4-unit buildings
378	2-BR units in	189	2-unit buildings
70	3-BR units in	70	1-unit buildings
840	units in	357	buildings

In addition to these living quarters, the site plan makes provision for two community buildings and eleven laundries well distributed among the residential buildings. The latter are roughly the same size and design as the one-family houses.

In the interests of economy, only one floor plan was developed for each of the three building types, but the standardization was deftly disguised by numerous variations in exterior appearance:

1) Entrance details are varied in design and, except in the case of interior dwelling units, the entrances are frequently shifted from the front to the side of the living rooms. 2) Coupled with the latter, three variations in living room fenestration are used for each building type to take advantage of orientation and outlook — see renderings, p. 413. 3) While most of the roofs are gabled, some are hipped. 4) Three types of exterior finish are employed either individually or in combination with one another—shingles, clapboards and vertical boards and battens. 5) Five colors and white are used. The different combinations of these dozen design and finish variations are almost limitless and were used in good taste at Westpark to give the many houses the tenant-pleasing character of individuality.

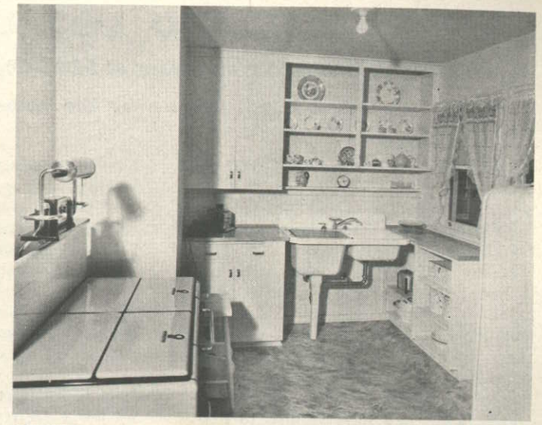
Particularly noteworthy is the use of color. In the wooded sections of the site, warm colors predominate — tan, dark brown and red. Where the growth is low, houses are painted gray, green or tan. All are roofed with bleached gray shingles. Finally, to relieve these large expanses of color, those portions of the exterior walls sheltered by the wide eave overhangs are frequently painted white with the doors accented in bright yellow, pink, blue and green.

Construction of Westpark was, for the most part, conventional. There were, however, several money- and time-saving exceptions: 1) Gabled end walls were framed and sheathed horizontally on jigs in a central field shop, were then trucked to the various building sites for erection. 2) All other framing members were precut before delivery, but were conventionally put together. 3) Concrete pier footings used inside the poured concrete foundation walls were precast in another field shop. 4) "Roughing-in" plumbing was preassembled at a central point, installed in the houses as units.

Cost. In view of Westpark's above-average appearance in site layout, building design

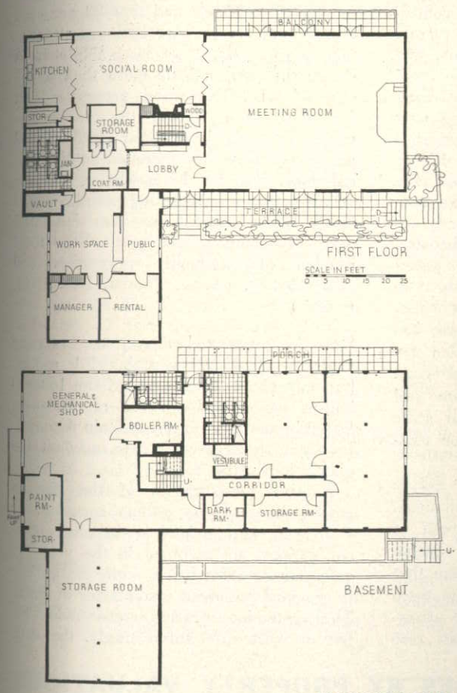
(Text continued on page 42)

LIVING-DINING ROOM

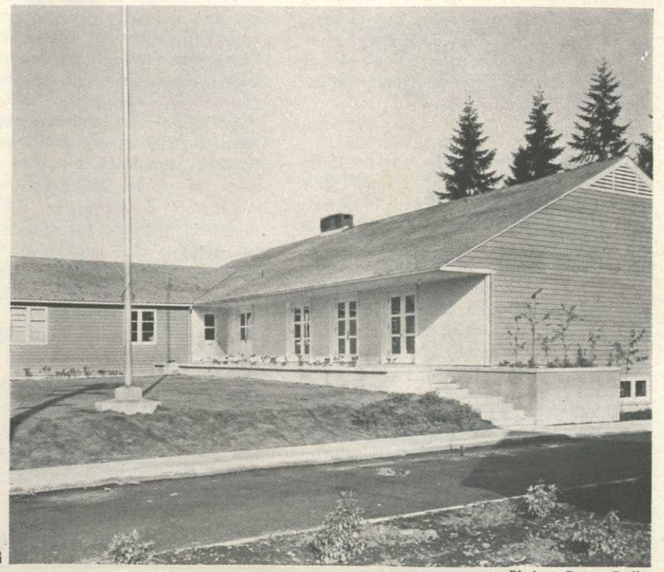


KITCHEN

Living-dining space pictured to the left is typical of Westpark's one-family house shown on page 412. Two community buildings, like the one shown below, provide the management with office and storage space, the tenants with indoor recreation facilities. They are surrounded with play fields—the only lawns within the project. Many of the small courts, on which the residential buildings face, are paved for recreational purposes.



COMMUNITY BUILDING



Photos, Roger Dudley