

# House & Home

THE MEETING AND MANAGEMENT PUBLICATION OF HOUSING AND LIGHT CONSTRUCTION

MARCH 1970



**How good design wins local approval for low-income housing**

**A realistic look at modular housing's economics**

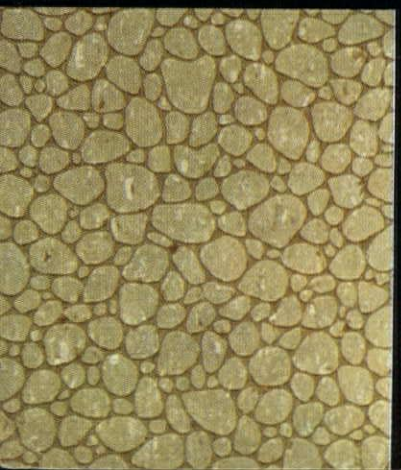
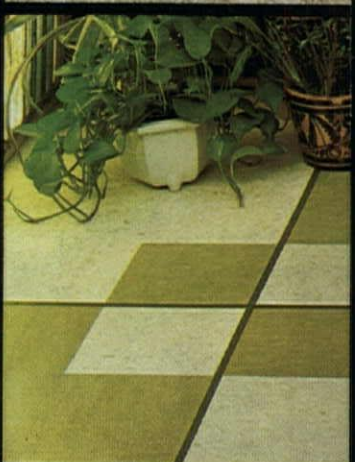
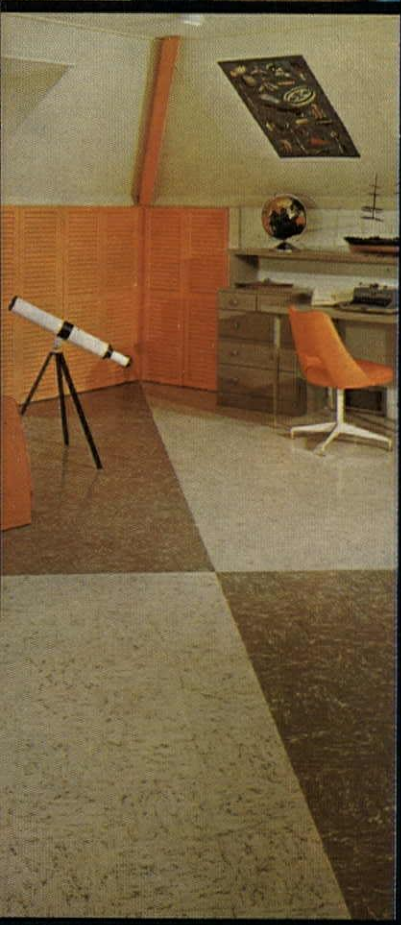
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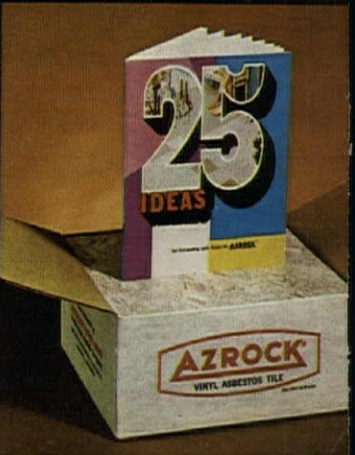


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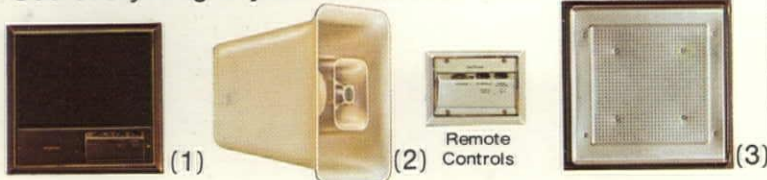


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MARCH 1970

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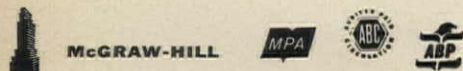
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HOUSE & HOME, March 1970, Vol. 37, No. 3. Published monthly by McGraw-Hill Inc. Founder: James H. McGraw (1860-1948). Subscription rates for individuals: U.S. and possessions and Canada, \$7 per year; single copy, if available, \$1; Latin America & Philippines, \$20; elsewhere, \$25. The Publisher reserves the right to accept or reject any subscription. Executive, Editorial, Circulation and Advertising offices: McGraw-Hill Building, 330 West 42 Street, New York, N.Y. 10036. Telephone: 971-3333. Second class postage paid at Washington, D.C. and at additional mailing offices. Published at 1500 Eckington Place, N.E., Washington, D.C. 20002. Title © in U.S. Patent Office. Copyright © 1970 by McGraw-Hill Inc. All rights reserved. The contents of this publication may not be reproduced either in whole or in part without consent of copyright owner. **Officers of McGraw-Hill Publications Company:** Joseph H. Allen, president; John R. Emery, J. Elton Tuohig, senior vice presidents; George H. Reppert, group vice president; vice presidents: John R. Callahan, editorial; John M. Holden, marketing; David G. Jensen, manufacturing; Jerome D. Luntz, planning and development; Robert F. Marshall, administration; Robert M. Wilhelm, finance. **Director of Circulation:** Ralph Blackburn. **Officers of the Corporation:** Shelton Fisher, president and chief executive officer; John J. Cooke, vice president and secretary; Gordon W. McKinley, vice president and treasurer. Member: Audit Bureau of Circulations and American Business Press. This issue of House & Home is published in national and separate editions noted or allowed for as follows: Western W1-W4, Eastern E1-E2DD, Midwest M1-M4B, North Central N1-N8B, Southern S1-S2. Postmaster: Please send form 3579 to Fulfillment Manager, House & Home, P.O. Box 430, Hightstown, N.J. 08520.

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**Cover:** Housing for the elderly in Wayne, Mich. Owner: Wayne Housing Authority. Architect: William Kessler & Associates. Builder: Holtzman & Silverman. Photo: Balthazar Korab. *For story, see p. 94*

## NEXT MONTH

Putting apartment amenities to the profit test: how a builder checks the potential effect of each design feature on the size of his mortgage loan and the rent, occupancy, and final cost of his project . . . Townhouses from all over: how topflight design is influenced by special markets and local market tastes

## A pledge from President Nixon bouys builders' convention

Official NAHB convention photo by Dome City, Houston

For a few minutes the aura of the White House stilled the meeting and filled Houston's Astrohall.

Lewis Barba's description of how four top NAHB officers made a mid-convention flight to Washington brought a touch of Presidential eminence to sessions fogged in the gloom of tight money.

In a hushed room Barba repeated Mr. Nixon's words, "I'm with you. I'm with you," and received an ovation when he told of the President's promise to make housing "a top national priority."

The hall was filled with stardust.

An anti-Administration flurry on the floor was snuffed out and the meeting ended in harmony.

**The question.** But whether the Washington sparkle shed light on builders' problems or just got in their eyes was debatable, according to more impartial observers. In a news conference after the meeting, Barba and his top officers failed to convince an incredulous press corps that any specific steps would—or could—be taken to aid housing finance.

The four NAHB officers who had visited Washington were joined in the press conference by George C. Martin of Lexington, Ky., whom the directors had just named vice president-secretary, the first step toward the NAHB presidency.

Barba had called the President's news release on the visit a "historic document," but the best that a roomful of sympathetic reporters could find in it was that housing was being accorded new priority subject to "the overriding need to control inflation."

No specifics were given, and questioning failed to disclose whether specific moves—whatever they might be—had even been discussed.

Barba raised his own estimate of 1970 starts from 1.4 million to 1.8 million on the basis of the mission to Washington, but all he would say in explanation was:

"I am not at liberty to tell you how this is going to be done, but you will see it happen. All the wheels are turning."

**Setback.** What appeared to most observers as an outright rebuff on interest rates was treated as a victory.

Barba himself had warned on Jan. 19 that a raise in Regulation Q ceilings for commercial banks "would do massive dam-



**TOP OFFICERS OF NAHB** hold a press conference following their report on the visit to Washington. From left: George C. Martin, Stanley Waranch, Nathaniel H. Rogg, Lewis R. Barba and John A. Stastny.

age" to homebuilding. And, he argued, it was "not feasible" to ease the blow with compensating boosts for S&Ls because of their low-yield portfolios. Higher rates, according to NAHB, would reflect "an incredible misordering of the nation's priorities." But . . .

- Barba went to Washington the 20th.
- The Fed moved rates higher the very day he met with the President.
- Barba's returning party flew into Houston to find headlines saying: Interest ceilings on savings raised.

**The new ceilings.** The new rates schedule cost S&Ls, the builders' financiers, much of their advantage in passbook competition with commercial banks. The S&Ls got seven new rates for certificates of deposit, ranging from 5.25% to 7.50%, but all are subject to time and size restrictions. For the higher rates—anything above 6%—the \$100,000 minimum effectively eliminates the retail saver, the industry's mainstay.

Passbook accounts, which produce two-thirds of S&L business, lost 25 basis points in their spread over savings rates paid by commercial banks. Instead of offering 4.75% to the commercial banks' 4%, S&Ls may now offer 5% versus the banks' 4.50% on passbook accounts.

Most observers expect the new rates, retroactive to Jan. 1, to help both banks and S&Ls maintain present savings but hardly to attract more. A minority view is that even more S&L deposits will be lost under the new rates.

**Money, money.** The convention drew a record 53,128 visitors, and they were offered a wide choice that included 500-plus exhibits (also a record). Attendance was heavy at sessions on apartments, mobile home parks, technology, zoning, and federal red tape. But the issue that aroused universal attention was money.

"In 1970 money is going to be tight, the price will be high and the availability will be scarce," said economist Gene Conatser.

The Bank of America vice president

added that he could see no reason for money to ease during the 1970s. There were a few tentative dissents to this view, but almost to a man, economists and other speakers said that too much demand was chasing too little money.

**Law and order.** Until the government leads the way with evidence of its own fiscal responsibility, the nation's financial markets will remain "an unholy mess," said Oliver Jones, the Mortgage Bankers Association's economist and executive vice president.

There must be genuine change in Washington, and if there is none, "the savers of this country and the managers of savings will no longer be interested in fixed return investments," Jones warned.

This call for financial law and order, the term used by mortgage banker Robert Sutro of Los Angeles, was echoed by speakers at most sessions. But none gave any indication of being encouraged by recent fiscal developments. As Jones emphasized, if housing is to be given a priority some other spending program must be moved down. He mentioned space, welfare, transportation, the SST plane, and military outlays as examples of heavy federal demands for capital.

"When the teacher moves a bad boy to



. . . **AS LISTENER** reads of interest rate rise.



**SPEAKER BARBA** tells of Washington trip . . .

Photos: H&H Staff

## President Nixon's word-for-word pledge to the builders

Yesterday, I met with Secretary Romney, Louis R. Barba and officials of the National Association of Home Builders to discuss the crisis situation we are facing in the housing of our people.

The continuing decline in housing production, the out-flow of funds from savings institutions supporting the housing market, and the drying up of traditional mortgage sources are contributing to a serious housing shortage which is of grave concern to our national well being.

Housing and the industry which provides it are bearing a disproportionate burden of both current inflationary pressures and the anti-inflation measures instituted to restore price stability. As a result, a major national resource—the productive capability of our private homebuilding industry to meet our national housing needs—is being greatly threatened.

**Halting the decline.** The decline in housing production must and will be stopped. The private sector and all levels of government must take the steps necessary to assure that the nation's housing needs are more fully met now.

There are no easy answers to the housing problem, and a full solution will require time. Extraordinary and unprecedented steps have already been taken. These include extensive direct support to the mortgage market through the Federal National Mortgage Association and the Federal Home Loan Bank Board. In addition, the Department of Housing and Urban Development has authorized issuance of mortgage-backed securities fully guaranteed by the government and has released \$1,150 million of funds to provide special assistance in the financing of housing production for low- and moderate-income families.

The need now is to go beyond these steps—to change basic attitudes and re-examine old patterns of activity—so that we can reach more quickly the full



**PRESIDENT NIXON** receives builders in the Oval Room of the White House. Clockwise from left, the circle includes Mr. Waranch, Mr. Stastny, Mr. Barba, Mr. Nixon, Mr. Romney, and Mr. Rogg.

solution that we are seeking.

**Warning on inflation.** The first step is for all sectors of our economy—business, labor, consumers, and all levels of government—to be fully aware of the nature of this crisis, and for each of them to address itself vigorously within its sphere of responsibility toward adequate solutions. The need to regain early control over inflation is paramount and voluntary steps to restrain unnecessary spending can play a vital role. In this connection, I have firmly committed the federal government to do its part.

In order to maintain a surplus in the budget, I have cut federal spending to the minimum possible levels this year and next. Some needed federal programs simply will have to be postponed, so that we live within our means. This will help free resources for housing.

I urge the private sector to follow this example by also postponing avoidable expenditures and increasing savings.

**Wages and money.** Some time ago

I cautioned business and labor against continuing to base price and wage decisions on the expectation of continued inflation. Those who do are bound to lose. The sooner this is realized the better off they—and the nation as a whole—will be.

Lack of mortgage money is perhaps the most pressing immediate restraint on housing. Needed housing must and will be financed and built. All financial institutions—commercial banks, mutual savings banks, savings and loan associations, life insurance companies, pension funds, and trust funds—should recognize the investment opportunities that will exist in this field over the years ahead. They should seek now to move affirmatively into a better position to capitalize on these opportunities.

I pledge that this Administration will take every possible step to solve this most serious housing problem consistent with the overriding need to contain inflation. The housing of our people is and must be a top national priority.

the front of the class, someone must give up a desk, and so far we have no indication that anything is being moved aside for housing," Jones said.

**Palliatives plus.** President Irving Rose of Detroit's Advance Mortgage Corp. gave new details of his proposal to add equity characteristics to mortgage financing for single-family homes (NEWS, Dec. '69). This will come soon and may develop in one of three ways, Rose said:

- A short-term mortgage, renewable periodically at the then current interest rates, with payments geared to long-term satisfaction of the debt.
- Variable interest rates, with constant monthly payments maintained by stretching the loan term and varying the amounts going for interest and amortization.
- An inflation mortgage, which adds to the principal an annual sum based on the

rise in consumer price index.

Despite the urging of Rose and other piece-of-the-action advocates, NAHB adopted a resolution supporting federal legislation to bar interstate lenders from loan participation "in any other form than interest."

**High drama.** It was against this gray background that the pre-dawn flight to Washington took place.

Barba, then acting president of NAHB, had read a telegram from President Nixon at the opening session on a Sunday. Secretaries Romney and Schultz had spoken Monday. But it was a dispirited convention until Barba disclosed the dramatic White House invitation.

Leaving Houston at 4 a.m. Tuesday in a jet loaned by Owens-Corning, Barba took with him John Stastny, Stanley Waranch and executive vice president Nat Rogg. (Barba, Stastny, and Waranch were ele-

vated to president, first vice president and vice president-treasurer at the Wednesday directors' meeting.)

**The visit.** Room 100 in the Astorhall, where the 500-plus NAHB directors met, seems larger than a football field. Far up front, the speakers are isolated from the casual going and coming through the entrance at the rear.

Conversations in various parts of the hall are carried on with the ease that legislators always seem to feel when in their chambers.

From the floor Lawrence Simons of Staten Island, N.Y., proposes to stiffen the policy statement by broadening its criticism of the Administration. The chair parries by asking for time to let directors hear about the Washington visit.

For the better part of a half hour the

*STORY continued on p. 6*

## Houston... (continued)

directors listen to an absorbing story—at times breathless as participants reveal their emotions—of the visit of the Oval Room.

"There has been a new dimension of communication achieved between NAHB and the government," says Stastny.

"The President is concerned with housing, and I was not convinced of this until I heard it with my own ears," says Waranch.

"Secretary Romney told us, 'You have turned the top government officials to action,'" adds Barba.

**In the Oval Room.** Barba had sat next to President Nixon, Stastny and Waranch were on their right and Rogg and Romney on their left. The you-are-there account was complete, even unto telling directors that "for you swingers, I can tell you, the President wore a white shirt."

"We left the meeting convinced that the President is determined to do something, but inflation is his chief concern," Barba told the directors. "As soon as that is solved, he will take the necessary steps."

An intent audience missed nothing. There was no criticism. But many compliments. Simons withdrew his words of reproof. Top officers were asked to "follow through" on the Washington mission, and all was harmony as directors filed out.

But minutes later, in the crowded press room, it was hard to find any substance on which to base a follow-through. Less dramatic words of other convention speakers began to obscure the vivid picture of the Oval Room.

**Back to reality.** That long-time friend of and expert on housing, Sen. John Sparkman, had summed it up in an address early in the convention:

"The big culprit blocking the free flow of mortgage credit is inflation. And behind inflation is the continuing high level of spending of the American people, including their government."

The overwhelming issue—even after the Washington visit—remained the money squeeze. What may have been the worst news of all came after the show was over but before most builders reached home.

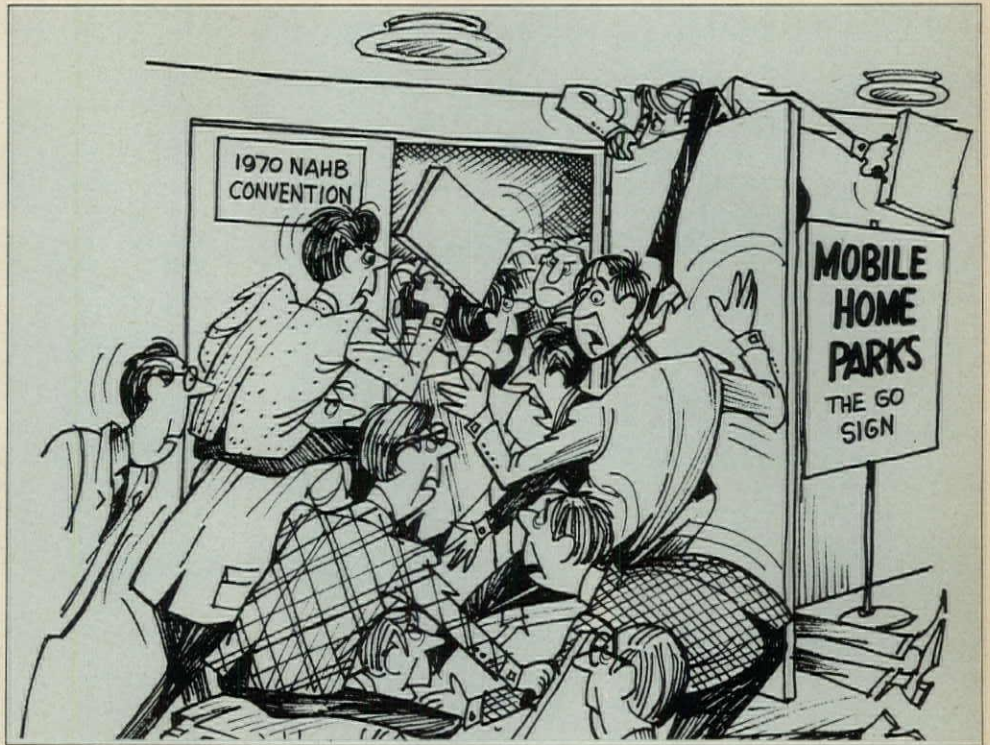
In a state-of-the-union address billed as a domestic message, housing failed to place. Compared to open space and parks, homebuilding was almost anonymous. In two forms the word house appeared three times in the 35-minute address.

Mr. Nixon said reform was needed in health, education, housing and transportation, plus "other critical areas."

He called for better housing, faster transportation, improved health and superior education, and he said Americans must place spiritual values above being the best clothed, best fed, best housed people in the world.

Something seemed to have happened on the way from the White House to Capitol Hill. President Nixon apparently forgot about the visitors for whom he had stretched a 10-minute appointment into a cordial visit of almost an hour two days earlier.

—TREVETT MATTHEWS



## Convention's top hits: apartments, mobile homes

The scene was an NAHB directors meeting in Buffalo, N.Y., and the time was a scant two years ago. Builder Nelson Puett of Austin, Tex., was speaking.

Homeowners, he said, are apt to be better citizens than apartment dwellers, and NAHB's promotional effort should aim "at getting us back to making homeowners out of renters."

At the NAHB convention in Houston last month, there were few builders left who adhered to such a restricted view of the housing they wanted to erect.

For the magic word this year was APARTMENTS. More than a dozen programs were devoted to every aspect of multifamily housing—from finance to maintenance—including several that had to be repeated because attendance overtaxed the largest meeting rooms in the Astorhall.

**The crowds.** Another subject that well might have been an anathema in the past, mobile homes, drew a crowd that spilled far into the hallway. The talk had to be reprised later in the day, and the crowd overflowed the room again.

The apartment sessions began on Sunday afternoon with a film, "Apartment Living—The Better Environment Today," and

continued daily through Thursday. Note-takers and tape-recording experts were busy as bees, and the directors of a session on "How to Enter the Apartment Field" were so sure of their audience that they scheduled their panel for 8 A.M. and still filled the room.

**The mobiles.** The mobile home park seminars drew both large- and small-volume builders. Panelist Dean E. Lindsay of Owens-Corning Fiberglas explained:

"The builders, both large and small, are looking for new profit opportunities because present conditions have made their conventional activities appear less profitable.

"Mobile homes and the demand for more sites have been prominent in the news, and builders recognize that the creation of a mobile home park is essentially land development. That's a subject in which they are experts."

Another indication of the new builder interest in mobile homes was the continuous crowd around the exhibit booth of the Mobile Home Manufacturers Assn. It was the first time the trade group had made a real sales effort toward builders and developers at an NAHB convention.

—JAMES P. GALLAGHER

## Operation Breakthrough loses a winner

Redman Industries, one of 37 semifinalists, has withdrawn abruptly from Operation Breakthrough.

Lee Posey, president of the big Dallas mobile home manufacturing combine, declined to discuss the company's decision to quit the HUD program. He said merely that his organization had found that "the objectives of Operation Breakthrough and the objectives of Redman Industries are not compatible."

"We feel we can move faster to solve the acute housing problems outside of gov-

ernmental programs," Posey added.

"In all probability, Operation Breakthrough has already accomplished its key objective of interesting nonhousing firms in exploiting the housing market."

Redman will continue to develop the modular building concept for conventional single- and multifamily markets, he said. It has tentative plans for a big modular development in the Southwest this spring.

—LORRAINE SMITH  
McGraw-Hill World News, Dallas  
NEWS continued on p. 12



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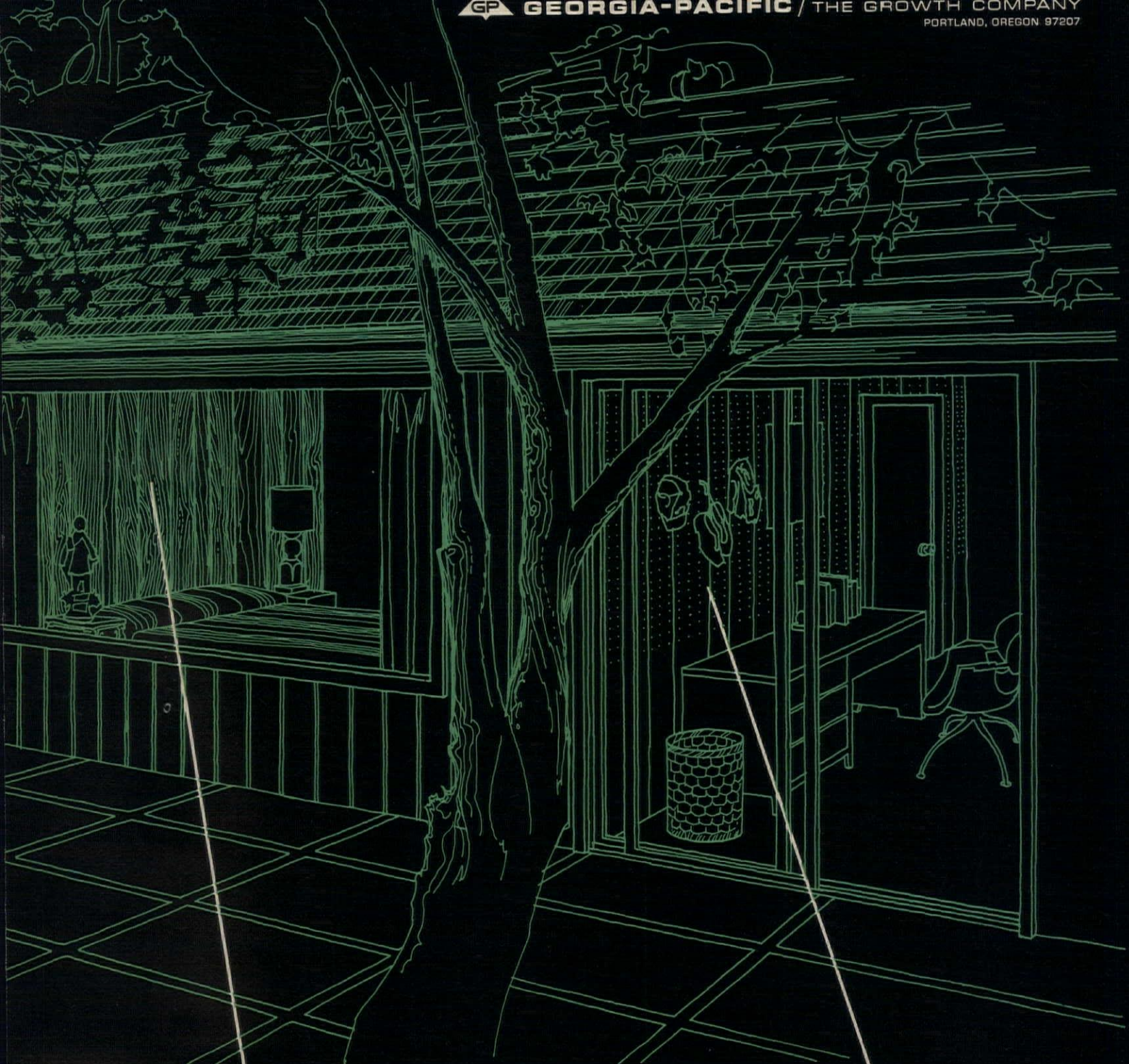
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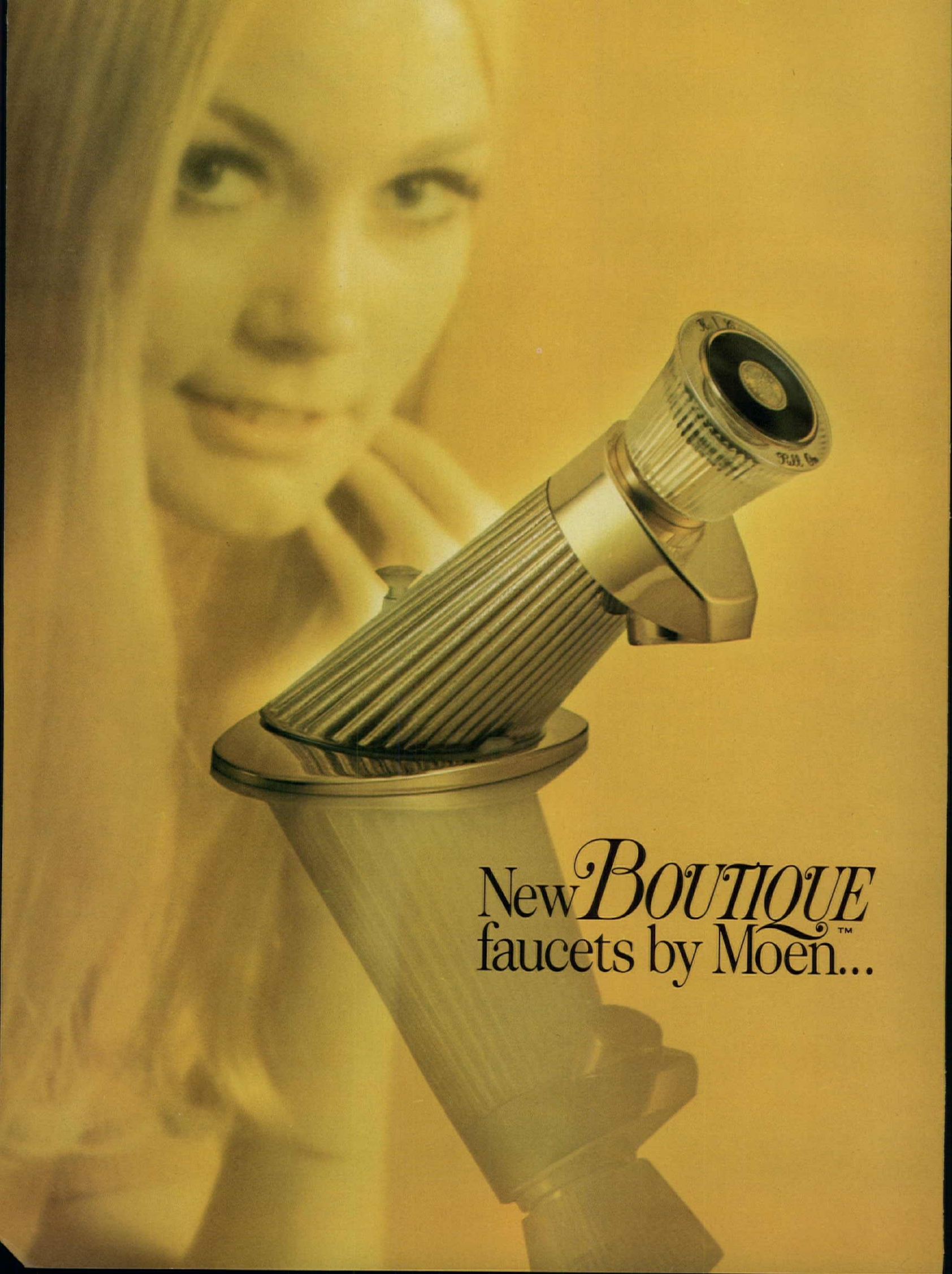
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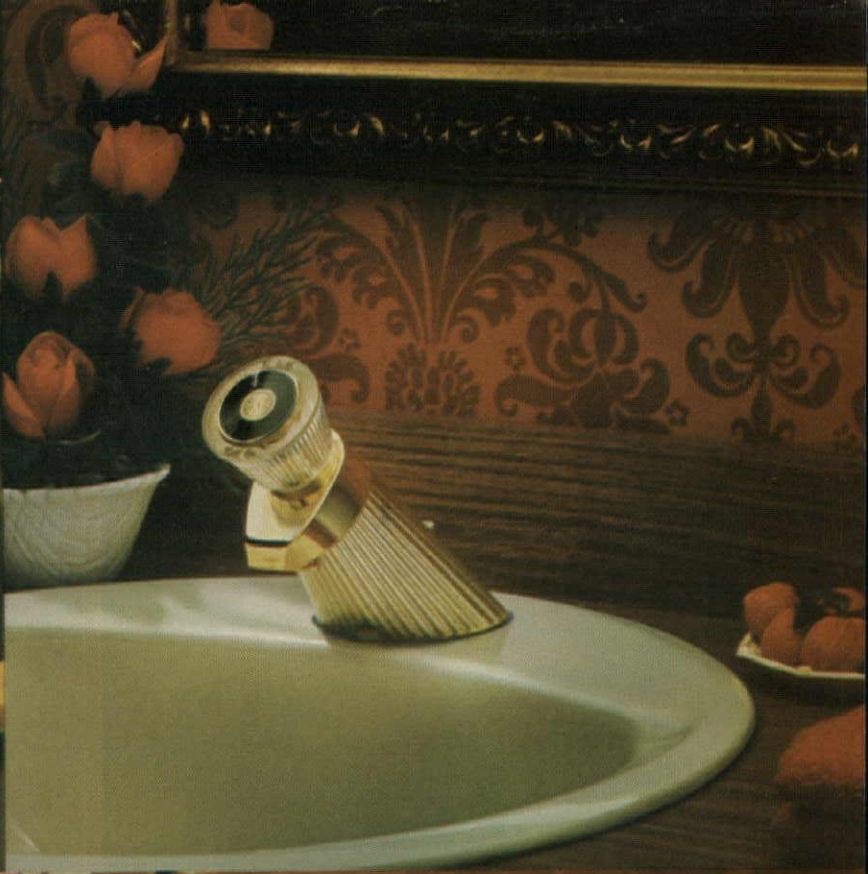
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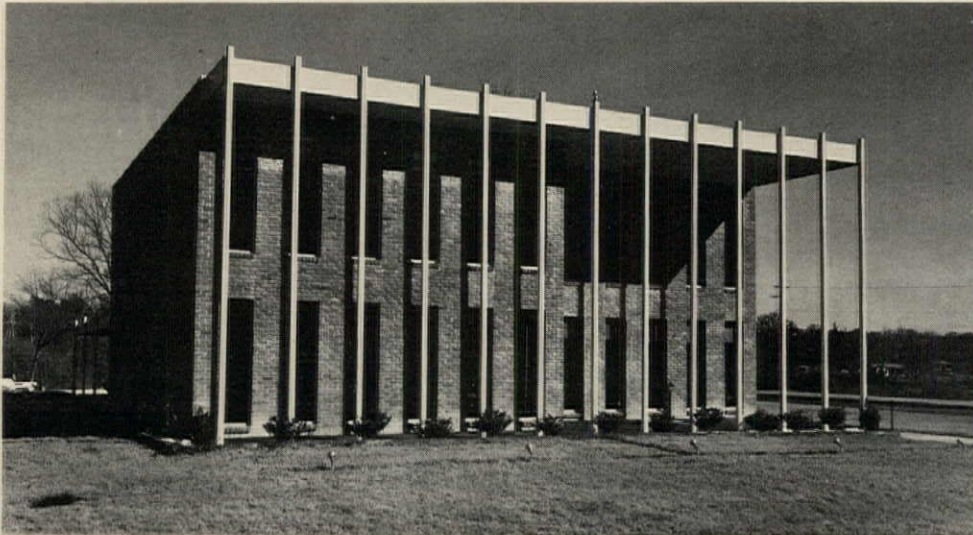
Inside the faucet is Moen's performance proven cartridge which controls the water volume and temperature. It's the same cartridge that's used in all Moen faucets and shower valves.

Women will see Boutique advertised throughout the year in idea magazines. They should see it in your homes. It's available in either gold-tone or silvertone finish. One of these colors will complement any bath accessory or decor.

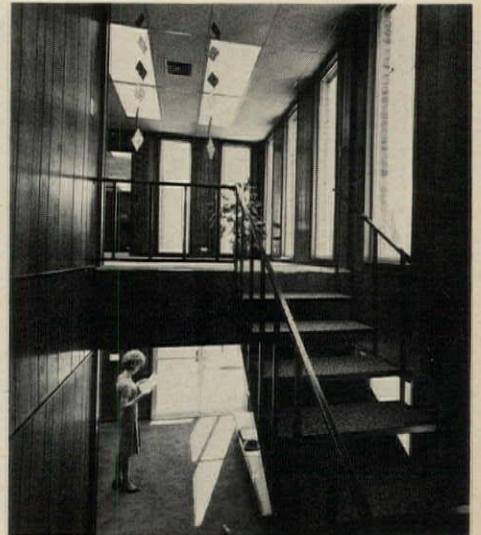
Want to know the real beauty of Boutique? You can't get a better sales builder for the money. It's the affordable way to add elegance to any bath. Boutique. Available through your plumbing contractor. Call him today.



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**OFFICE BUILDING** in Vicksburg, Miss., was first structure built with Guerdon's new modular system. Sixteen modules, 12'x40', were used for the building.



**DORMITORIES** for Rust College, Holly Springs, Miss., used 75 modules, 12'x36'; production began in August, buildings were occupied October 15.



## Mobile home makers offer builders a new trump card . . .

It's modular housing.

Even though the traditional mobile home market continues to grow apace—shipments in 1969 passed 410,000 and should top 475,000 this year—several manufacturers are already establishing separate production lines to turn out modular dwelling units.

Modulars are factory-built boxes assembled at the site like building blocks. They contain kitchen equipment, wiring, and plumbing. The term modular is more inclusive than "sectional house," two halves of a house built in the factory and put together at the site. A prefab is less complete than a modular and consists only of component parts—panels and trusses. It seldom includes mechanical cores.

Production of the modules poses relatively few problems for manufacturers. But distribution is another story. Old-line mobile home dealers are not considered suitable outlets for modular housing. Builders are.

"There may be a few cases in which a mobile home dealer will be able to handle our modular housing," says Joe Morris, vice president of sales for Champion Home Builders Co., a mobile home producer with a modular plant at Bertha, Colo. "But we expect to sell most of our units to builders and developers. This is traditional housing, and it has to be sold like traditional housing."

**Builder as distributor.** Guerdon Industries, a mobile home company which has been experimenting with modulars for at least three years, announced in mid-January

that it had developed a new system utilizing steel and concrete (*photos, above*) and Guerdon clearly intends to distribute the system through builders.

"We're talking to a number of builders," says Carl Cappaert, general manager of Guerdon's Magnolia Division in Vicksburg, Miss., and the man Guerdon describes as the developer of the new construction system.

Cappaert says, for instance, that a Houston builder has agreed to purchase 182 complete modular houses from Guerdon's factory, and the company reveals that it now has \$15 million worth of module orders. More than half of that backlog—\$8.5 million—is due to an order for 380 three-bedroom units (1,520 modules) for military personnel in Turkey and Crete. The balance of the backlog, says Cappaert, will be delivered to builders and developers. No apartments are on order, he says, although Guerdon has used the system for a 12-unit apartment project.

**Problem of sales pace.** Guerdon is running into a problem that, so far, has stymied most efforts of mobile home manufacturers to distribute through builders.

"If a builder went to a manufacturer and said he wanted 100 houses in the next two months," says Richard Mitchell, director of the land development division of the Mobile Home Manufacturers Assn., "the manufacturer would be elated. He could change his production line and knock out 100 houses to the builder's specifications.

"But the builder doesn't operate that way. He may want two houses the first week, four houses the second week, five the third week, and no idea how many he'll want after that. There's no way a manufacturer can accommodate the erratic sales pace of a conventional builder and make a profit. Or if he can, it's not worth it to him. He's making too much money on his main product—mobile homes."

Cappaert concedes that Guerdon's system will not move many builders to place large-volume orders immediately:

"We're not expecting a builder to say, 'It's great, I'll take a hundred.' Our experience has been for a builder to agree to take two, or three, or four houses to see how the system works. We're willing to work with them. We realize their problems are different from those of a mobile home dealer."

**Builders and slow-pay.** Other manufacturers have concluded that distributing units through builders is an entirely new marketing game. And not all of them like the rules.

"Builders are so used to getting extended credit from lumber yards and other suppliers," says the president of one mobile home company, "that they no longer know what a check is."

The MHMA's Mitchell sees a basic difference between builders and mobile home manufacturers: "Builders use leverage. A manufacturer is accustomed to getting paid on delivery."

Still, mobile home companies moving into

the traditional housing market expect to do business with conventional builders. "The interest is there," says Champion's Morris. "Two years ago, I would have said it was unusual for us to hear from a builder. A year ago, I would have said it wasn't unusual. Now, I'd be surprised if a week went by without an inquiry from a builder."

**The Louisville show.** The determination of mobile home companies to circumvent their regular distribution patterns in marketing modular housing was evident in their displays at the National Mobile Home Show, held at Louisville in mid-January and attended by 10,429 persons, a new record.

Few companies displayed modular houses—or even double-wides—and this scarcity of double-wides and modulars seemed to emphasize the feeling of several mobile home executives that traditional dealers can handle only 12'-wide units. At the same time, mobile home officials feel they need not make a special effort to interest builders in their modulars.

"We don't have to solicit builders," says Champion's Morris. "They come to us."

"We've been getting a steady stream of inquiries from builders and developers," says chairman Paul Zimmer of Zimmer Homes, which has one modular plant at Pompano, Fla., and another going up soon in Pennsylvania.

**Sophisticated systems.** Few mobile home companies are as advanced with their modular housing program as is Guerdon's Magnolia Division.

The Louisville company quietly put its newest modular system into production last summer, testing it first in the construction of a 3,840-sq.-ft. office building in Vicksburg, Miss., where the Magnolia plant is located.

Satisfied with the results, Guerdon took an order for two dormitories from Rust College, Holly Springs, Miss. Guerdon says the buildings cost \$9.50 a square foot, "with the total installed and finished structures costing approximately \$14 a square foot."

The 12'-wide modules can be stacked five stories high, according to Cappaert. The length of the modules can be varied. For the Vicksburg office building, 40'-long modules were used; for the dormitories, 36'-long modules.

**Materials.** Lightweight concrete is used for decks. Steel wall columns carry the structural load. Gypsum board fastened to steel studs is used for sheathing. Guerdon says most exterior materials can be used with the system. Cranes are required to set the modules in place.

The \$15-million backlog will carry the Vicksburg plant into the summer. "We'll be looking for new business in the late spring," Cappaert says.

The modules can be shipped economically up to 500 miles, according to Cappaert, before they begin to lose their cost advantage over conventional on-site construction. Cappaert says that other divisions of Guerdon probably will set up production lines for the new system, although he would not say which of Guerdon's 28 other plants would be producing the modules.

**Problems ahead.** Guerdon's backlog and its plans to introduce the new system in other plants reflect its optimism about the future of modular housing. Guerdon seems worried about neither codes nor unions.

"The local building officials are on the defensive now," says Cappaert. "They'll have to show why we shouldn't be allowed to put up this housing."

But another manufacturer explains why the rush to modular housing may soon slow down. "It took us six months," he says, "to adjust our production line to meet the codes in only one metropolitan area."

Until these related problems of restrictive codes and union opposition to offsite construction are resolved, all industrialized housing will be hard put to gain widespread acceptance. And mobile home companies, expecting to increase production of their 12'-wide units by 20% this year, will not be giving priority to modular housing.

—DAVID THALER

## Does tight money slow the mobile homes? Yes and no

Mobile home shipments rose from 317,950 in 1968 to more than 410,000 last year, and the Mobile Home Manufacturers Assn. estimates that this year—the year of tight money—shipments will reach 475,000.

Fleetwood Enterprises, with sales of more than \$80 million a year, expects its volume to increase at a rate double that of the rest of the industry. Fleetwood will have at least four more plants coming on line this year, and sales vice president Gordon Collins isn't worried about keeping them busy.

Pathfinder Mobilehome has just doubled production; President Ed Dickman is not concerned about tight money.

Vindale Corp. is increasing its production capacity, and President Paul Riedel says tight money hasn't slowed sales at all.

**The darker side.** But the president of one of the larger mobile home companies warns: "Tight money has been slowing sales for 90 days. Anyone who says his sales haven't been hurt is just lying."

"I've seen newspaper articles saying tight money is a boon to mobile homes," says another executive. "That's just foolish."

Adds Chairman Paul Zimmer of Zimmer Homes: "I think the sales outlook for most mobile home companies is soft, at least through the spring."

**Slowdown in lending.** While most mobile home companies continue to be bullish about sales in 1970, tight money is slowing down sales in two ways:

1. Dealers are having to reduce inventories, because lenders are cutting back on commitments for floor-plan financing, the

short-term loans that carry the cost of a mobile home from the time it is delivered to a dealer until it is sold off his floor.

2. Lenders are more selective in qualifying consumers for retail paper, and mobile home buyers who could have qualified this time last year are being disqualified now.

"Last year," says President Dan Katzman of Commodore, "a dealer would send in five contracts, and he would get financing for four, or all. This year, he may get financing for three."

"The weaker dealers have been affected," says Vice President Joe Morris of Champion, "but not the strong dealers."

Katzman likens the current money situation to that of 1966, but he adds: "This time I think it will turn around much sooner."

**High rates.** Manufacturers get a delayed reaction from tight money. "With 6½% add-on interest," says one mobile home executive, "mobile home money is available after mortgage money has dried up. But not for long."

Add-on interest is added to the principal to arrive at the total loan. The borrower receives the principal only; the lender, in effect, is paid the interest in advance for the entire term of the loan. Since the principal is paid back in monthly installments, the borrower has use of the full amount of the loan for only half of its life, so 6½% add-on usually equates with about 12% to 13½% in simple interest.

Says an official of the Mobile Home Manufacturers Assn.: "Dealers are being told they have to cut back on their floor-plan financing. That means they have to

cut back on their inventory. In some cases, they do this by calling a manufacturer and telling him to cancel the order they placed last week. The manufacturer has produced those units, so he has to keep them."

**Reluctant dragons.** Tight money is having another effect. Federally chartered savings and loan associations, which last year were authorized for the first time to invest in mobile home paper, have been slow to take advantage of the new opportunity.

Mobile home officials had hoped that the S&Ls would respond by coming on dramatically with terms different from those offered by credit companies.

"Right now," says Richard Mitchell of the Mobile Home Manufacturers Assn., "they're not going to do much of anything. They've indicated to us that they will advertise the true interest rate (about 13% on retail paper, usually described by credit companies as 6½% add-on interest) and perhaps add a few years to the term. But for the most part, they're going to follow the present pattern until money loosens up and they gain some experience."

One possibility is that S&Ls will offer a complete package, financing development of a mobile home park, an inventory of mobile homes, and retail sales.

Park development has been a major concern for mobile home companies. The scarcity of park spaces has exasperated some, prompting them to set up subsidiaries that will develop parks or undertake joint ventures with builders to do so.

—D.T.

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# The traditional roof goes modern.

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# Fanny May moves to stabilize weekly mortgage auctions

Secretary Romney raised the FHA rate and one result was chaos in the Federal National Mortgage Association's auctions.

Some \$705 million of bids hit FNMA the first week after the rate announcement. The next week, FNMA boosted its offering by \$30 million, to \$150 million, only to receive \$672.4 million of bids.

The third week there was no auction.

Chairman William B. Ross of FNMA stood before an audience of builders at their Houston convention and told them he was refusing all bids for the Jan. 19 auction. Bids of \$480 million had been received for the \$150 million of FNMA commitments.

Bidding, Ross said, had become "excessive and speculative" and he was taking steps to restore order to the market.

**Threat to stability.** Ross told the NAHB meeting that speculative bidding had "unduly depressed mortgage prices and threatened the stability of the auction."

"Fanny May expects to continue a strong market program, but we simply could not expand our volume of acceptances in line with the excessive and unrealistic volume of offers received in the last few weeks."

Ross said FNMA would double the auction the following week—making available \$300 million of commitments. But, he said, bidders would henceforth need an FHA conditional commitment or VA certificate of reasonable value for every mortgage offered to FNMA in the auction. (Under the old rules, no commitment was needed and bidding could be completely speculative.)

Ross also said that any bidder could increase his bid in the new bi-weekly auction to \$2.25 million, up from a limit of \$1.5 million for each commitment maturity.

Noncompetitive bidders were also permitted to increase their bids to a top level of \$150,000, up from \$100,000.

**A rise in prices.** Even with the change, bidding continued heavy. It reached \$581.4 million in the first auction under the new rules. Prices, however, increased somewhat—and some indication of private-investor interest in the home-mortgage market began to develop.

## Atlanta mortgage company selling out to a bank

Tharpe & Brooks and First National Bank of Atlanta will become affiliated under an agreement for the bank's holding company, First National Holding Corp., to buy the mortgage banking concern.

No financial details were disclosed on the exchange-of-stock transaction. The Tharpe & Brooks insurance division was not included.

Tharpe & Brooks services a \$300-million mortgage portfolio for some 70 investors. It will continue its separate functions with its present staff when it becomes a wholly owned subsidiary, according to chairman Robert Tharpe.

This is the first move into mortgage banking by First National, which had limited itself to construction lending.



ROSS

HUNTER

Fanny May then announced a second auction pause—again aimed at letting the market catch its breath.

The Mortgage Bankers Association of America endorses the course taken.

In a letter to MBA members, Oliver H. Jones, executive vice president, said: "Since the interest rate ceilings on FHA-VA mortgages were increased to 8½ percent, bids for commitments from FNMA to purchase mortgages have exceeded any reasonable estimates of the real market demand for FHA-VA loans, either currently or over the next 12 months."

"As a result, the auction price of FHA-VA mortgages has been driven down precipitously."

**Serious problem.** Jones agreed that those conditions could not be permitted to continue, for "the result would be serious distortions of market conditions."

"As bad as the market is today," Jones said, "its capacity to cope with the problems would only worsen."

Jones said the new course "is a commendable effort on the parts of FNMA, Sec-

retary Romney, and Chairman Ross to deal realistically with a difficult problem."

He said FNMA assured MBA "there is no intention, implied or direct, in these changes of significantly reducing FNMA's support of the market in this troublesome period."

"Fanny May is simply trying to maintain its assistance at sustainable levels while reducing the speculation that has driven prices down sharply."

Some experts do see Fanny May's action as running the risk of sending prices too high to attract private investors. With the FHA rate at 8½ percent, some small interest has already been seen among life insurance companies and savings banks, to purchase FHA and VA loans. One market expert says that if FNMA prices don't move too far above private market prices, other investors will continue to return to the market.

**A new chief.** While FNMA was trying to steady the secondary market, President Nixon named a new president to replace Raymond H. Lapin as head of the organization.

Allan Oakley Hunter, a former California Congressman, was named during the Congressional recess to fill out the unexpired term left by Lapin when he was removed in December by the President.

Hunter, a Republican, was a member of Congress from 1951 to 1955. He also served as general counsel of the Housing and Home Finance Agency, a predecessor of the Housing Department. He is a lawyer.

The White House said the new FNMA chief was recommended by Secretary Romney and a committee of FNMA directors.

## HOMEBUILDERS' MORTGAGE MARKET QUOTATIONS

Reported to HOUSE & HOME in week ending Feb. 14.

FNMA Auction Prices Feb. 9 8½%	FHA Sec. 203b—Min.-Down* 30-year immed. Discount paid by builder			Conventional Loan Interest Rates			Construction Loan Rates
	City	Private mkt. 8½%	Trend	Comm. banks, Ins. Cos. 75%	Savings banks, S&Ls 80%	Savings banks, S&Ls Over 80%	Interest+fees All lenders
	Atlanta	6-7	Up 1	a	8½-9+2	8½-9+2	9½-10+2
	Boston	1	Steady	8½	b	a	8½+1
	Chicago	4-5	Steady	a	a	a	b
	Cleveland	10-12b	Up 5	a	8-8½+1-3b	a	9-9½+1-3
90-day commitment Average 94.96	Dallas	5-6	Up 1	a	8½+2	9+2-3	9-10+1-2
Accepted bid range 93.88-95.50	Denver	5-6	Up 1½	9-9½+1	9-9½+1-1½	a	9+1½-2
	Detroit	4-5	Steady	8½	8½-8¾	a	9½-10+1-2
	Honolulu	6-7	Up 1	9-9½	9-9½+2-3	b	10+2-3
180-day commitment Average 94.85	Houston	5-6	Up 2½	a	9½b	b	10+1-2
Accepted bid range 93.00-95.40	Los Angeles	5½	Up ½	b	8.7-9.6	9½	9½-9½+1½-3
	Miami	6-7	Up 1	a	8½-8½+3½	8½+4b	10+1-2
	Minn.-St. Paul	7	Up 3½	a	a	a	13-14+1-2
	Newark	5-6	Steady	a	a	a	10+1½-3
	New York	4-6b	Up 2	7½b	7½b	a	9½-10+1½-2
12-18 month commitment Average 96.08	Okla. City	5-6	Up 3	a	9-9½+2	a	10+2-3
Accepted bid range 94.99-96.74	Philadelphia	6	Steady	7+7b	7+7b	a	10½+2
	San Francisco	5½-6	Up ½	a	9-9½+1½-2	a	9-10+2½-3½
	St. Louis	5-6	Steady	a	a	a	10½-10¾+1-2
	Seattle	4½-5½	Up ½	a	8½-9½	a	9½-9¾+1½-2½
	Wash., D.C.	5½-6½	Steady	8b	8b	8b	9½-10+2-3

\* Immediate covers loans for delivery up to three months, future covers loans for delivery in three to twelve months.

- Quotations refer to prices in metropolitan areas, discounts may run slightly higher in surrounding towns or rural zones.

- Quotations refer to houses of average local quality.

\* 3% down on first \$15,000; 10% of next \$5,000; 20% of balance.

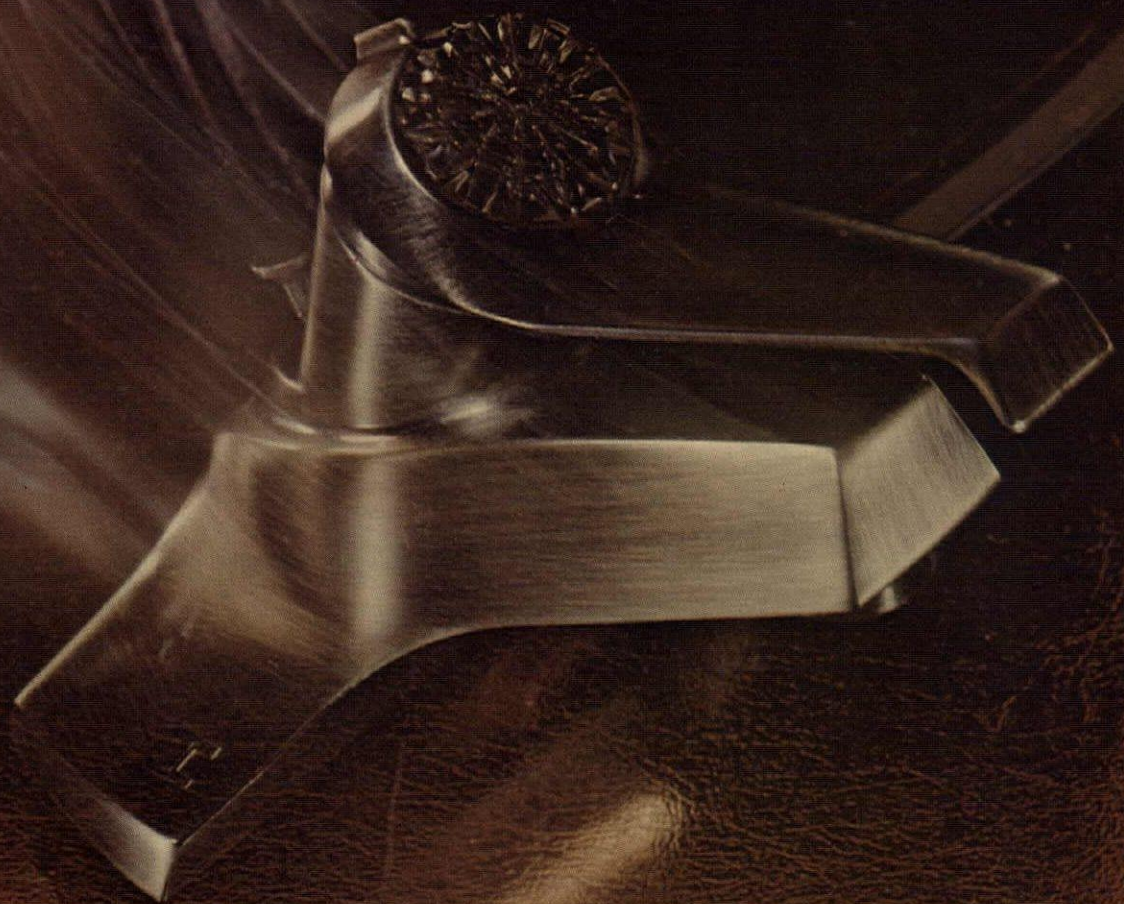
Footnotes: a—no activity, b—limited activity, c—Net yield to investor of 8½% mortgage plus extra fees, w—for comparable VA loans also.

Sources: Atlanta, Robert Tharpe, pres., Tharpe & Brooks Inc.; Boston, Robert Morgan, chairman, Boston 5<sup>e</sup> Savings Bank; Chicago, Robert H. Pease, senior vice pres., Draper & Kramer Inc.; Cleveland, David E. O'Neill, vice pres., Jay F. Zook, Inc.; Dallas, M.J. Greene, pres., Southern Trust & Mortgage Co.; Denver, Clair A. Bacon, sr.

vice pres., First National Bank; Detroit, Sherwin Vine, vice pres., Citizens Mortgage Co.; Honolulu, H. Howard Stephenson, vice pres., Bank of Hawaii; Houston, Everett Mattson, sr. vice pres., Lomas & Nettleton West; Los Angeles, Robert E. Morgan, senior vice pres., Colwell Co.; Miami, Lon Worth Crow Jr., pres., Lon Worth Crow Co.; Minneapolis-St. Paul, Walter C. Nelson, pres., Eberhard Co.; Newark, William W. Curran, vice pres., Franklin Capital Corp.; New York, Sigfred L. Solem, sr. vice pres., Dime Savings Bank; Oklahoma City, B. B. Bass, pres., American Mortgage & Investment Co.; Philadelphia, Robert S. Irving, vice pres., First Pennsylvania Banking & Trust Co.; St. Louis, Charles A. Keller, vice pres., Mercantile Mortgage Co.; San Francisco, John Jensen, senior vice pres., Bankers Mortgage Co. of California; Seattle, Kirby D. Walker, vice pres., Continental, Inc.; Washington, Don DeFranceaux, pres., the Berens Cos.

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## The White House warms up to some basic mortgage reforms

The mortgage market, which has spent almost three years waiting for structural reforms, may be getting help from the Nixon administration that will permit it to side-step tight money.

While the Administration stopped short of actually recommending any new action, the President's economic advisers have hinted at several reforms which, if adopted, could ease the burden on housing investment during high-interest periods.

In its Economic Report to the President, the Council of Economic Advisers points a finger at housing's inability to compete during credit-crunch periods. Inefficiency, the advisers say, has crept into the structure to the point where reforms are needed.

And although no hard proposals are made by the CEA, the report does point to four areas in which the Administration might possibly take action.

- A mortgage that has a variable interest rate.
- A secondary market for conventional mortgages.
- Total elimination of ceilings on mortgage and savings rates.
- Elimination of statutory usury ceilings.

All of these suggestions have been made before by mortgage experts.

**Variable rate.** An FHA or VA loan with a variable rate would probably find a warm welcome among lenders.

While the CEA does not urge the adoption of such a formula, it does indicate that "when future interest rates and rates of inflation are uncertain, both lenders and borrowers may be better satisfied with an instrument that provides some hedge against these uncertainties."

Variable-rate mortgages are written by

many lenders, but success has been marginal. A lender may be unable to use the formula if his competition does not go along, and so mortgage men often feel the government should take the lead by adopting variable rates on FHA loans.

The CEA report suggests that the adjustment caused by a movement of the variable rate could be accomplished by lengthening or shortening the maturity, but some lenders prefer to increase or decrease the monthly payment to borrowers.

President Nixon's economic aides hit hard at housing's heavy reliance on specialized financial institutions. The advisers claim that this reliance has caused housing to lag at the end of the credit line during tight-money periods.

"The possibility of raising funds in the face of high interest rates might be improved if housing had recourse to more varied sources," the report suggests, pointing to heavy financing by the Federal National Mortgage Assn. and the Federal Home Loan Banks during 1969. It suggests mortgage-backed securities as one way to tap new sources of funds.

**Secondary market.** The report says that "establishment of a facility providing a secondary market for conventional mortgages somewhat along the line that FNMA now provides for FHA-VA mortgages is currently being considered."

If the Administration decides to back such a vehicle, there is likely to be a Congressional battle over who should run the program, FNMA or the Bank Board. Savings and loan officials have indicated they want the HLBB to set up the secondary market for conventional loans; rank-and-file mortgage bankers prefer FNMA.

Congress, as it has done in the past, is

likely to ask the housing and home financing industry to come up with one proposal that all can agree on. As envisioned by legislation already introduced, the secondary market for conventional loans would be set up in the same way as the weekly auction for FHA and VA loans is now run by FNMA.

**Attack on ceilings.** The advisers are far more assertive in their feeling about savings rates for banks and savings and loan associations. Similarly, the CEA deplores mortgage-rate ceilings that dry up funds whenever credit tightens.

Of savings-rate ceilings, the report says they "have come to serve quite different purposes than those originally contemplated."

"In particular, they are viewed as a device to ensure a larger flow of funds into home building, because they help protect savings and loan associations, a mainstay of home financing."

**Roadblocks.** Nixon administration officials, including CEA member Herbert Stein, have in the past suggested the savings ceilings be abolished or at least placed on a standby basis. Opposition from thrift industry representatives has been strong, however, and objections from Congress have precluded any action.

In a seeming attempt to get around this, the Administration will name a Presidential commission on financial structure and regulation to "examine needed changes" in all financial institutions. Whether the commission will ultimately recommend eliminating the ceilings remains to be seen, but the Administration is evidently convinced that the ceilings are not doing the job they were intended to do.

—ANDREW R. MANDALA  
Washington

## New housing bills would help savers who help mortgaging

Three Congressmen now figure that the best way to help housing is with tax incentives, and they are offering legislation to provide a tax exemption for individuals who place savings in mortgage institutions.

The plan might even win the support of the Administration. Housing Secretary George Romney said at a recent press conference that he and

others in the Administration are considering support of such a proposal. The legislation has won the backing of many savers and loan managers, and both of S&L trade groups—the U.S. S&L League and the National League of Insured Savings Associations—appear ready to endorse the savings-tax plan.

The three Congressmen are Richard Hanna, (D., Calif.), Spark M. Matsunaga, (D., Hawaii) and Donald Lukens (R., Ohio). All have introduced bills to exclude

from the gross income of individuals the first \$750 of interest received on deposits in thrift institutions.

**The Hanna Bill.** Rep. Hanna's proposal goes further than either the Lukens or Matsunaga bill, and an aide to Hanna explains: "We've attempted to avoid direct subsidy, which hasn't worked in the past."

In addition to its savings-tax provisions, Hanna's proposal would reduce by 10% the income tax on businesses engaged in construction, sale or financing of housing:

"There shall be allowed as a deduction in computing taxable income an amount determined as follows: 1) first determine the taxable income of the taxpayer . . . 2) then subtract from that amount a sum equal to 10% of the taxpayer's net home-building income."

**Drive on pension funds.** The Hanna measure also deals with private foundations and the pension, profit-sharing and stock-bonus plans that, because of a favored tax treatment, have grown to assets totalling \$1250 billion.

For favored tax treatment, Hanna feels, "the favored parties should help shoulder a public burden, supplying funds for housing." So his bill calls for these institutions to shift 25% of their assets into housing investment over the next 25 years, at the rate of at least 1% per year.

**The choice.** Hanna expects sharp criticism of his proposal from some quarters, including the foundations. But he explains: "Before this (tax incentive) approach is criticized, I would caution you about consideration of the alternative."

"There is already talk of a massive, federally financed and administered direct-housing loan program. The approach I offer would, I suggest, cost but a fraction of that alternative."

The costs of the tax-incentive route versus the direct-subsidy approach for housing will doubtless be a major factor in securing needed Administration backing for the measure. President Nixon's budget has been balanced on a precarious thread.

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HANNA

# the great spring "Hang-Up"!

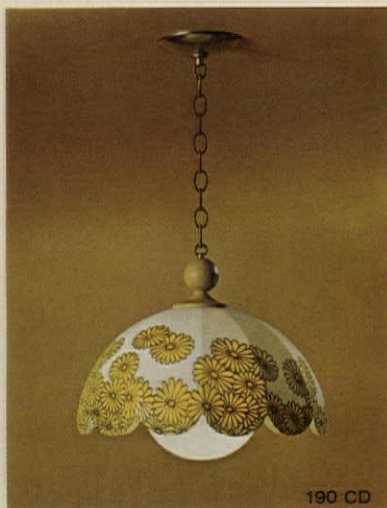
The great spring "hang-up"...or, it's time to select model home fixtures again...what to select...what fixture will add sales appeal to my new model...what's the right style fixture for my home...who has the most complete fixture selection...who can provide the most help? The answers to all these questions are available from your Lightcraft of California distributor. Visit his showroom and let one of his expertly trained lighting counselors help you in selecting just the right fixture in the right style and at the right price.

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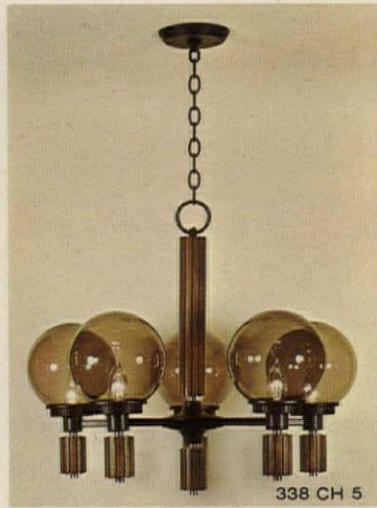
20 CH 5

For beauty on a budget, bring a room to life with the clean, well-accented lines of this fixture. Bright combination of satin white glass, with avocado finish.



50 CH 6

Twinkling candles, gleaming French gold make this candelabra a graceful accent to any traditional room.



338 CH 5

For decorators who know fashion from fad. Rich walnut, sheer black and gleaming chrome delight the eye with a combination of elegant textures.



## LIGHTCRAFT OF CALIFORNIA

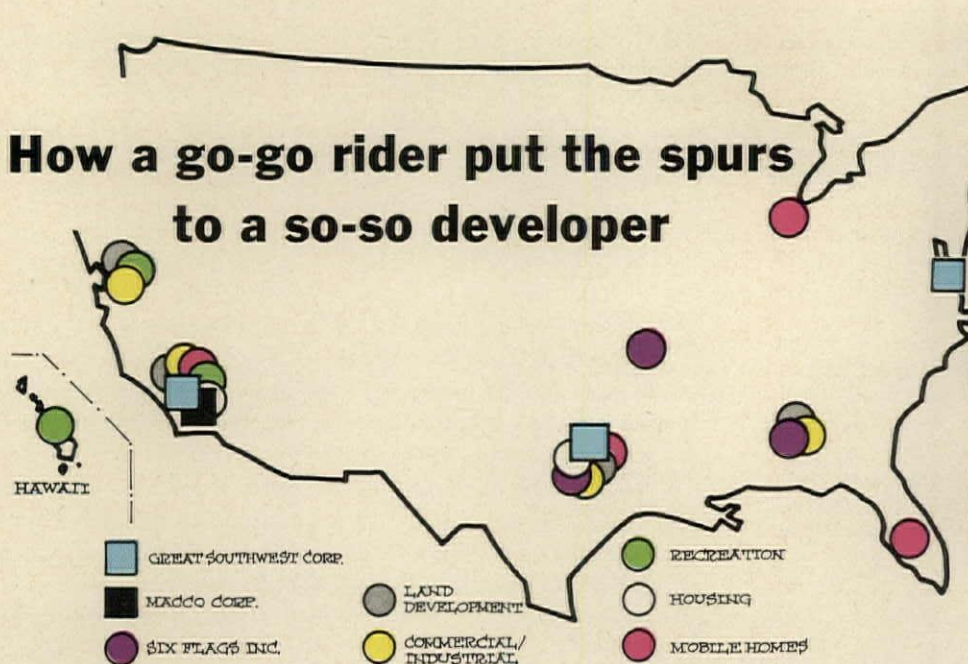
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## How a go-go rider put the spurs to a so-so developer



**MACCO'S OPERATIONS** have burgeoned to the full range of developments shown on map. The expansion was directed by the man on horseback, Bill Baker, and by Baker's right-hand man, Bill Ray.

Texas Bill Baker and his posse of hard-riding executives came into town during the Macco Corporation's darkest days.

Old-timers at the California-based development company whispered that a \$3-million loss lurked ahead for the year.

But Baker wasn't scared off. He reached for Macco's land maps and came up with a series of land sales that yielded a \$6 million profit.

That was 1967.

**A revitalization.** In 1968, Baker pushed Macco's profits to \$10.5 million on sales of \$66.1 million.

And last year's profits hit \$33 million on sales of \$122 million, after Baker launched a merger and acquisition program. His first move was to merge Macco into Great Southwest Corp. (gsc), a Texas-based land and amusement developer run by his old mentor, Angus G. Wynne Jr. of Dallas.

This is the story of the rescue and, more significantly, of the revitalization of Macco that followed. For today Macco is emerging as one of those multiproduct builders that could dominate entire sectors of the market (NEWS, Oct. '69).

Macco and its parent are already building 9,000 houses, apartments, and mobile homes a year. They are also producing mobile home parks, second-home lots, commercial buildings, huge industrial parks and big-time amusement centers. And modular houses, high-rise offices, and resort hotels are on the drawing boards.

**Spurring 'em on.** The key to Macco's revival is Bill Baker, a 36-year-old lawyer and horseman.

A veteran employee, who has seen more than one Macco regime come and go, says: "He created a new company here."

Baker, who is president of both Macco and parent gsc, runs Macco the same way that he rides: even at a gallop, he keeps a firm hand on the reins.

**Wildcat management.** Baker expects his division leaders to have the courage and brains to make their own decisions; he hates committees.

During his first days at the company in 1967, Executive Vice President Bill Ray sent Baker a stack of memos outlining massive and expensive changes for Macco. Baker read the memos that night and wrote a one-sentence reply: "Go 'til you hear glass breaking."

"I give the division leaders money to get started and a specific profit goal," says Baker. "The rest is up to them."

The successful get rich; the failures get fired.

Lon Rubin, who heads Macco's expanding house and apartment division, says: "I'm working my butt off because I have the autonomy I need to do the job." And he adds with a wry smile: "And because I'm greedy."

**The critics' side.** Some outsiders from other building companies and Wall Street have reviewed Macco's free-form management and soaring profits and asked: "How long can it last?"

The critics contend that 1) Macco overpays its executives, 2) Macco wastes money on a company yacht and jets and limousines for business trips and, 3) Macco depends on wheeler-dealer land deals for far too much of its profit.

Two typical opinions:

"Baker is too much of a wheeler-dealer

to have a solid, long-range plan for his company."

"Macco's revival is based on big land deals, so the whole bubble could burst."

The doubters don't bother Baker, who offers a point-by-point reply. He contends that the company's salaries and travel arrangements have helped lure top executives. (One of Macco's new executives adds, "A first-class company doesn't nickel-and-dime top people.")

And Baker says that leased jets and cars often allow an executive to cram three days of traveling into one day: "My executives' time is too valuable to waste."

As for the land deals, Baker notes that Macco is shifting to building. He says, "We are going to be one of the few full-range building companies in the country."

There are outsiders who believe in Baker and his management philosophy. One building-company analyst from Wall Street says:

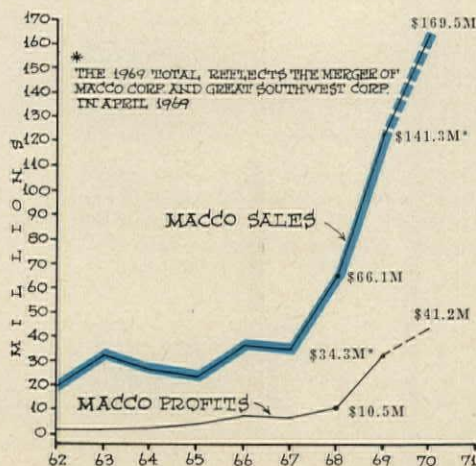
"Baker and his right-hand man Bill Ray are as impressive as Eli Broad and Gene Rosenfeld of Kaufman & Broad."

**The golden rule.** Baker's forceful personality has dominated Macco since his arrival in 1967.

Throughout that year, company executives scaled down the original \$10 million profit projection as credit tightened. Finally in August, they forecast a \$3-million loss, the first in Macco history.

Alarmed executives at Penn Central, who had paid \$38.4 million for Macco only two years earlier, asked another of their realty subsidiaries, gsc, for help.\* Wynne sent protege Baker for a quick diagnosis of Macco's troubles.

Baker took one look and decided that Macco needed more than a check-up. It needed major surgery.



\* Pennsylvania Railroad acquired control of gsc in 1964. By 1967, GSC operated industrial and amusement parks in Dallas-Fort Worth and Atlanta. Today, GSC is a holding company with two subsidiaries, Macco and park builder Six Flags Inc.

Under Wynne's direction, he assumed financial control and began running the company.

"I operated under the golden rule," says Baker. "That is, I had the gold, so I made the rules."

**Trouble at old Macco.** Baker says his analysis of Macco revealed six problems:

1. *The company lacked go-go executives.* "When I stepped up the beat around here, everybody quit," says Baker. Only six of today's 500 employees at the Newport Beach offices worked for the company before Baker arrived.

2. *Macco lacked exciting house designs.* The company sold thousands of houses during California's boom years. But it stuck with its old designs well into the mid-'60s. Competition stiffened, and Macco's annual sales fell from about 1,500 units in 1963 to 500 in 1967.

3. *Macco lacked market research.* Russ MacQuiddy, one of the few oldtimers Baker promoted, says former company executives couldn't decide on which research outfit to hire: "So they didn't hire anyone."

A builder who worked with the former executives says: "After they built a house, they got a sale price by adding up all the costs and tacking on a 15% profit. If the price was too high, they scaled down room sizes to cut costs."

4. *Macco lacked a range of products.* It built only single-family houses, so its fortunes soared and dipped with that one volatile market. Company-owned sites that seemed suitable for apartments, factories, or stores were simply sold off to other developers.

5. *Macco lacked money.* Tight credit had choked off the few savings and loan associations that had lent heavily to Macco through the years. And the company lacked cash because it was selling its houses for only 5% down payments, plus second trust deeds for 15%. In 1967, Macco held trust deeds valued at \$75 million. (Today it holds less than \$10 million.)

6. *And Macco had more land than it needed.* Baker inherited a land speculator's nightmare. Former management, which had expected California land prices to continue soaring, had borrowed heavily to amass 130,000 acres. (It snapped up one 600-acre parcel with the money advanced for 645 construction loans.) The strategy worked in the

boom years as eager builders bid for Macco's choicest sites. But in the depressed 1967 market, many builders stopped buying land and the prices of the majority of Macco's parcels leveled or actually dropped. Baker was stuck with the land—and the heavy mortgage costs.

**Land for sale.** There were only three months left in 1967. Baker had to act.

He decided to sell off as much land as possible, for land was the company's only resource. The first executives he hired—bankers and accountants—compiled a definitive property list that included Macco's investment in each parcel and the market value of each.

Baker pushed the parcels that promised the biggest profits, including one 430-acre commercial site that he sold for \$12 million. A string of such deals generated Macco's \$6-million profit for the year.

Things got tougher in 1968.

Baker began molding Macco into a versatile developer by hiring experienced builders of houses, apartments, factories, and stores. The new men worked 20-hour days, but they needed months to get rolling.

Again Baker looked to the land for much of Macco's profits. To move the huge and expensive sites that remained, he had to be imaginative.

**Hooking a big one.** Baker went fishing in Mexico and came home with a big one—a plan to syndicate the 4,928-acre Bryant Ranch for \$30 million.

In 1967, Baker failed to find a willing buyer for Bryant at \$7 million, which was \$1 million below Macco's total investment. (Macco had paid \$5 million for the land in 1963.)

Bryant had substantial drawbacks. The management of the new town Mission Viejo, its prosperous next-door neighbor in Orange County, declined to sell a strip that would have reduced Bryant's access to the San Diego Freeway from 16 to four miles. And Bryant lacked enough water and sewer lines to support full residential development, though there were enough facilities for a recreational project.

In addition, the land's carrying charges were \$500,000 a year.

So Baker's idea was to sell Bryant as an exclusive horse-and-gun club called Coto de Caza. The buyers: individual investors, who buy lots and ultimately share 45% of the

Coto de Caza recreation club's profits.

By mid-year, 400 investors agreed to pay \$75,000 each, of which \$15,000 was immediate cash. (The \$6 million in cash—\$15,000 x 400—was tax-deductible prepaid interest on a \$30 million note—\$75,000 x 400—held by Macco.) Macco, in turn, borrowed \$7.5 million on the note from a financial institution.

So the ranch that Baker couldn't sell for \$7 million generated \$13.5 million in cash (\$6 million from the investors—\$15,000 x 400—plus \$7.5 million from the financial institution), the long-term note that yields \$1 million a year, and 55% of the project's ultimate profits.

Baker is sanguine about Coto's future. He is building \$5 million worth of clubhouses, motels and stables there, though he is obligated to spend only \$2 million by terms of the syndication.

**Shift of emphasis.** The big land deal, such as Coto and the \$19 million sale of its minority interest in new town Rancho California (NEWS, Nov. '69), has been Macco's trade mark. But Baker has shifted emphasis steadily toward construction.

The key man in this shift is Ray, Baker's first lieutenant. Ray supervises the day-to-day operation of each of Macco's land, recreation, and building divisions.

Ray believes the move to building is solving many of the problems Baker found in 1967. For example, accelerated development has helped Macco reduce its land holdings from 130,000 to 36,000 acres. And there are master plans covering every acre.

Macco is now buying 500- to 1,000-acre sites that it can develop and sell out in less than five years.

"The big-pop land deals are fine," says Ray, "and we will continue to do them. But this company will enjoy its greatest growth as a versatile developer, not a land trader."

**Brick-and-mortar future.** The company could nearly double its housing output this year, from 9,000 units to 17,400. If so, the per-share earnings of parent GSC's stock would hit \$1.30 in 1970, up from \$1.08 in 1969. The stock traded over the counter between \$17 and \$20 a share in January.

Macco is moving toward a bricks-and-mortar future through internal expansion and the acquisition of major builders:

Leadership Homes, Macco's 115-man,

*Story continued on p. 22*



**MACCO PRODUCTS** include horseman's club in California . . . **APARTMENTS** in Texas, California . . . **MOBILE HOMES** in Midwest, West, and South.

## Go-go rider . . . continued

single-family division, built 1,250 houses throughout southern California last year. Leadership has expanded to Dallas and expects to sell 2,100 units this year.

(Veteran builder Harry Lasky, who got Leadership moving in 1968, solved some of the problems Baker had found the year before. Lasky hired architects to design new models, began extensive market research and nailed down loan commitments.

"I didn't inherit much," says Lasky, "not even a purchasing department. But after 90 days, we were building under lighted tents so the men could work at night.")

Macco built its first apartment units last year—2,086 units in southern California and Dallas. By year's end, all but 600 units had been sold to investors. This year, the 65-man apartment division headed by Lon Rubin, a Kaufman & Broad alumnus, is aiming for 3,500 units. The division may enter the Chicago market.

**Acquisitions.** To expand apartment production even further, parent gsc has just acquired the I.C. Deal Companies of Dallas. The price: about \$22 million in stock. President Irving Deal, who helped popularize the swinger apartment, plans to build 1,800 units this year in Dallas, Houston, and Atlanta. Last year, Deal built 1,250 in Dallas.

The Macco parent also purchased a big mobile home manufacturer, Richardson Homes of Elkhart, Ind. That deal was closed late last year for \$15 million, plus another \$5 million if Richardson expands at a prescribed rate. Richardson, which will double its factories to eight this year, plans to produce 10,000 units, up from 5,700 in 1969.

And Macco will round out the building program by introducing modular houses and apartments this summer. Lasky and Leadership Homes will direct the modular and mobile home effort. Rubin will head the single-family and apartment divisions.

"In five years," predicts Lasky, "some 70% of our houses and apartments will be built with modular components."

**For future amusement.** Macco is also expanding its recreation division. Indeed, that unit is planning some of the company's most exciting projects.

The division wants to build "an international village of stores" on a vacant 11-acre pier on San Francisco's Fisherman's Wharf. Construction could begin this year.

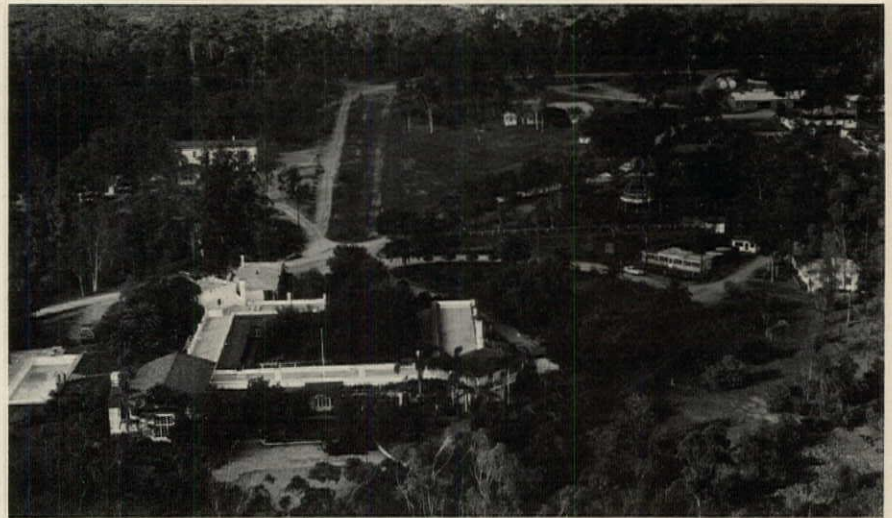
And the division is planning a resort hotel complex for the island of Hawaii. Macco has just formed a joint venture with the C. Brewer Co. to develop Brewer's 285,000 acres on the island.

Meanwhile, gsc's Six Flags Inc. subsidiary, which operates thematic amusement parks (à la Disneyland) in Dallas-Fort Worth and Atlanta, plans to open one new park a year beginning in St. Louis in 1971. Six Flags is going to Europe in 1973.

Company executives are highly optimistic, and poster-sized advertisements for gsc appeared in Wall Street subway stations early in January. The ads read:

"Have a big year. We will."

—FRANK LALLI



SCRIPPS RANCH, which includes original mansion, will have houses, apartments, and industry.

## Macco introduces team building concept

Each of the five Macco divisions had a hand in developing the 1,180-acre Scripps Miramar Ranch shown above.

"Our team approach assures a well-rounded building program," says Executive Vice President William Ray, who supervised the planning.

Each division—from apartments to recreation—gets a shot at part of the site. The division with the most promising development plan gets the biggest chunk of land.

Here is how Macco's team building worked at the Scripps Ranch, right outside San Diego:

The land division paid \$4 million for the site, the former estate of newspaper magnate E.W. Scripps, late in 1968. That division then requested development plans from each of Macco's four other divisions—single-family houses, apartments, commercial-industrial and recreation.\*

The commercial-industrial men carved out a 300-acre district and immediately sold 100 of the acres for

\$1.2 million in cash. That division alone could recover the \$4 million Macco paid for the ranch.

The single-family division got the major program. It plans to sell 1,368 houses there during the next three years. Since last summer, it has sold six houses a week, priced from \$29,000 to \$40,000.

The recreation division helped create the model complex, which includes the same traditional red-surface roads that surround the Scripps' mansion. Recreation staffers are also conducting mansion tours that attract potential homebuyers.

The apartment division will start the first of 975 garden-apartment units this fall.

"We will repeat this approach with all of our large projects," says Ray. "We think such versatility is the wave of the future in this business." —F.L.

\*Macco now has one housing division that includes single-family, apartments and the company's mobile home and modular programs.

## Ross Cortese sells out for \$25 million in stock

The Leisure Worlds of Ross William Cortese have found a place in the sun.

Zero Manufacturing Co., a Burbank, Calif., electronics producer, has agreed to acquire Rossmoor Corp. for 2.7 million shares of stock, worth about \$25 million at its current price on the American Stock Exchange.

Cortese will remain as president of Rossmoor, which will operate as a wholly owned subsidiary of Zero. He will report to John B. Gilbert, chairman and chief executive officer.

The agreement with Zero specifies that voting of the shares issued for Rossmoor will be controlled jointly by Gilbert and Cortese for five years.

Since founding Rossmoor in 1951, Cor-

tese has pioneered in developing planned communities for persons of 52 years and older.

From their beginning in Laguna Hills, Calif., Leisure Worlds spread across the nation. And at one time Cortese had plans for European communities.

But an empire that included 7,355 acres of expensive land required liquidity beyond Cortese's reach (NEWS, Nov. 1967) and sales to other developers have reduced Leisure Worlds to five: three in California, one in Maryland and one in Princeton, N.J.

Rossmoor had sales of \$37.3 million and net income, including an extraordinary item of \$389,000, of \$1.5 million for the fiscal year ended Sept. 30, 1969.

NEWS continued on p. 26





The Rivertowne as built by Raymond F. Stanford, Amory, Mississippi.

Copyright © Boise Cascade Corporation 1970

# The Kingsberry Man helped Raymond Stanford, home-builder, make a profitable move into apartment construction.

Raymond Stanford had been building Kingsberry single family homes for four years. They were good years. Good enough to encourage him to talk to the Kingsberry Man about business on another scale—the construction of luxury apartments.

The result of these talks—magnificent Kingsberry Rivertowne—is pictured above. What accounted for Mr. Stanford's confidence in Kingsberry? He tells it himself: "That's easy. Besides the good design and liveability of Kingsberry units, I like the savings in labor. All materials are delivered to the job exactly when they're needed, and everything fits precisely. The Kingsberry Man handles problems before they happen, and relieves me of a lot of bothersome paperwork. With this kind of help, building apartments was a natural, simple move for me."

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know-how also shows up in the alligator-jaw crossmembers that reinforce our truck frames. And in the durability of double-wall cab construction. We see to it that every truck in our line gets this kind of toughness

that doesn't know when to quit. Right up to the new Titan 90 conventional you see here with its whopping 76,800-pound GCW rating. Along with being your best truck buy it might just be a Chevy is

your best advertising buy, too. Either way your money's going to make a lasting impression.



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# running longer.

# Professor cries 'foul' and land-development stocks dive

Paul Schumach

The land development giants were staggered last month by stock price collapses ranging up to 33%, seemingly triggered by an article in *Barron's*, the financial weekly.

The article, by Abraham J. Briloff, professor of accountancy at the Baruch College of the City University of New York, criticized the accounting methods of land developers, saying, "an agonizing reappraisal of the earnings of land development companies seems to be in the making."

"Agonizing" was a precise word. In one month, the price of Deltona fell to 43, down 20½ from its Jan. 5 level of 63½. Others fared as bad: AMREP dropped from 49 to 33, General Development lost 10, from 30¾ to 20¾, and Horizon Land sank from 53½ to 39. Even GAC Corp., which in 1968 absorbed Gulf American Land (which had about the same gross income as the parent), lost 8½ in four days of trading, falling from 47½ to 39 between Jan. 29 and Feb. 4. (The *Barron's* article appeared Feb. 2).

**Lucky miss.** One big company was omitted from the list of developers named in the professor's article. It was McCulloch Oil, and it lost only 4½ (to 30%) during a month of stock market weakness. This exception caught the interest of one of the housing industry's leading financial analysts (see below).

Prof. Briloff's strongest objection was to the land development industry's practice of recording the full sales price of land purchases as income in the year the sale is made, although most purchases are made on contracts ranging from five to 11 years in duration.

The financial statement of at least one company (General Development) frankly admits that this is the practice they follow, but their auditors, highly respected national certified public accountants, present the practice as being "fairly in accordance with generally accepted accounting principles."

**'Foolish consistency.'** Calling this a "nod to correctness," Prof. Briloff said that any consistency shown was a "foolish consistency, which, according to Emerson, is the hobgoblin of little minds."

Briloff concluded with the question: "Where were the independent auditors in all this?" Answering, he noted that the Accounting Principles Board had authorized a study group to look into the way land development companies present their financial statements. (Not yet formed, the group is expected to take at least a full year to present any findings.) But, shrugged Briloff:

"Its response will be only with all deliberate speed. Its response will be pathological, whereas it should have been prophylactic; in the meantime, the bubble was inflated."

**Riposte.** Quick to respond to the Briloff attack was Frank E. Mackle Jr., president of Deltona Corp. Speaking to the Atlanta Society of Financial Analysts, he blamed the article for the collapse of Deltona stock, which washed out more than \$40 million in market value at its lowest point.

Said Mackle:

"As far as it pertains to Deltona Corp.,



MACKLE

BRILOFF

Dr. Briloff doesn't know what he's talking about. He ought to know better."

Mackle contended that the charges were not applicable to Deltona because more than 20% of its income derived from the sale of homes, apartments, and other buildings, and that most of the remainder came from the sale of improved land, not raw acreage. "We're builders, we're not just land peddlers."

**Loss reserves.** Mackle also insisted that the cancellation reserve maintained by Deltona was more than sufficient to protect the company in the case of contract renegeing, and that a discount to protect the receivables (asked for by the Briloff article) was unjustified because the value of the land generally rises and it can be resold for more than its original price.

**Rat sniff.** Saying that he "smelled a rat," financial analyst Kenneth D. Campbell, in his Feb. 4 newsletter, charged that a great deal of activity in land development stocks took place on the two trading days previous to the Feb. 2 publication of the Briloff ar-

ticle. Campbell noted that the failure to include McCulloch Oil in the *Barron's* list of land developers—"an incredible stroke of luck"—enabled that company to escape the general market debacle.

Campbell said that Wall Street had been hearing rumors of the impending Briloff report for nearly two months, and that he had referred to them in his Jan. 2 advisory newsletter. Concluded Campbell:

"We think that someone should try to find out who did all that pre-exposure selling."

Criticizing the Briloff article, Campbell also said:

"The intelligent analyst recognizes these distinctions [between different land development companies] in his evaluations. Not so Dr. Briloff, who heaps the same perjorative on all. Dr. Briloff pleads for recognition of the economic realities and then ignores those realities."

**Housing stocks.** Although there was nothing like a critical newspaper article to blame, HOUSE & HOME's index of 25 housing stocks also fell sharply. The list plunged to 290.24 from 351.88 during the month ending Feb. 2. The decline was one of the steepest since the index first appeared in April 1967.

How the top five did in each category:

	Feb. '69	Jan. '70	Feb. '70
<b>Builders</b>	451.85	453.58	380.50
<b>Land develop.</b>	564.67	604.40	440.16
<b>Mortgage cos.</b>	546.15	567.01	541.70
<b>Mobile homes</b>	646.20	656.64	518.68
<b>S&amp;LS</b>	167.56	149.06	123.76

## HOUSING'S STOCK PRICES

COMPANY	Feb. 2 Bid/Close	Chng. Prev. Month	COMPANY	Feb. 2 Bid/Close	Chng. Prev. Month	COMPANY	Feb. 2 Bid/Close	Chng. Prev. Month
<b>BUILDING</b>			United Fin. Cal. e	10½	- ¾	Citizens Financial b	15½	+ 2½
Bramalea Cons (Can.)	4.40	- .35	Wesco Fin. e	18	- 3½	City Invest. e	20¼	- 6¾
Capital Divers. (Can.)	2.95	-				Cousins Props	39	+ 6½
Centex Corp.	40½	- 6½				Forest City Entr. b	16½	- 3¼
Christiana Oil b	15½	- 6¾	<b>MORTGAGE BANKING</b>			Great Southwest Corp.	17½	- 1½
Cons. Bldg. (Can.)	1.50	-	-Advance	16½	-	Investors Funding b	19¾	- 2½
Dev. Corp. Amer.	15½	+ 2¾	-Colwell	18¼	- 1¼	Midwestern Fin. b	11½	- ½
Dev. Int. Corp.	14¾	- 1¾	-Cont. Mtg. Investors e	42	- 1½	Rouse Co.	37½	+ 4¾
Edwards Indus.	7½	- ½	Cont. Mtg. Insurance	20½	+ ¾	Tishman Realty e	23½	- 3½
First Hartford Rity.	6	- ½	Excel Investment	2¾	- ½			
First Nat. Rity. b	4½	- 1	FNMA	124	- 18			
Frouge	3¾	+ ¼	First Mtg. Ins. Co.	9	+ ¼	<b>MOBILE HOMES &amp; PREFAB</b>		
-General Bldrs. b	7¼	- ¼	First Mtg. Investors	23¼	- 1¾	Con. Chem. Co. b	11	- 2¼
-Kaufman & Bd. e	49¾	+ ¾	-Lomas & Net. Fin.	9	-	-Champion Homes b	19¾	- 3½
Key Co. b	7	+ 1½	-MGIC Invest. Corp. e	51	- 3¼	Commodore Corp. b	13¾	- 2½
(Kavanagh-Smith)			Mortg. Associates	17½	+ 1½	-DMH (Detroit) b	15½	- 4¼
Corp. a. b			North Amer. Mtg. Inv. b	23¼	+ ½	-Fleetwood b	20¾	- 4¾
Leisure Technology	26¼	-	Palomar Finan.	7½	- ¼	-Guerdon b	21½	- 3¼
McGrath Corp.	14	- 3½	UIP Corp. b	7½	- ¾	Mobile Home		
National Environment	10¼	- 3½	(United Imp. & Inv.)			Industries b	16¼	- 3¼
(Sproul Homes)			Universal Invest. Trust	2¼	- ½	Monarch Ind. e	23¾	- 1½
Nationwide Homes	5¼	- ¼	(Southeast Mtg. Inv.)			Redman Indus. e	24¾	- 12½
-Presidential Realty b	11¼	- 1¼				Rex-Noreco b	17½	- 4¾
Pulte Homes	10¼	- 1¼	<b>LAND DEVELOPMENT</b>			-Skyline e	21¼	- 7
Ryan Homes	34¼	+ 1	All-State Properties	1¾	- ¾	Town & Country Mobile b	11¾	- 3¾
Standard Pacific Corp. b	7¾	- ¾	American Land	¾	-	Zimmer Homes b	23¾	- 8
U.S. Home & Dev. b	24¾	- 8¼	-AMREP b	33	- 16			
-Jim Walter e	23¼	- 8¼	Arvida	12¾	- 3½	Hodgson Houses	7	- ½
-Del E. Webb e	9¾	- 2½	Atlantic Imp.	16¼	- 4¼	Natl. Homes A. e	21¾	- 1½
Washington Homes	11¼	+ ¾	Cavanaugh Int. b	8	- 1½	Swift Industries	4½	-
Western Orbis b	6¾	- 4¼	Crawford Corp.	3½	- ¼			
			-Deltona Corp. b	43	- 20½			
<b>S&amp;LS</b>			Disc Inc.	5½	+ ¾			
American Fin.	28	- 1½	Don the Beachcomber					
Calif. Fin. e	8½	-	Ent. (Garden Land)	12	+ 1			
Empire Fin. b	15	- 6¼	FPA Corp.	16¼	- 3¼			
Far West Fin. e	13¼	-	(Fla. Palm-Aire)					
-Fin. Fed. e	15½	- 1½	-Gen. Devel. e	20¼	- 10			
-First Char. Fin. e	29¼	- 7¾	-Holly Corp. b	3	- ½			
First Lincoln Fin.	7	+ ½	Horizon Corp.	39	- 14½			
First S&L Shares b	13¾	- ½	Laguna Niguel b	6¾	+ 1			
First Surety	5¾	+ ¾	Major Realty	7½	+ ½			
First West Fin.	3¾	+ ¼	-McCulloch Oil b	30¾	- 4¾			
Gibraltar Fin. e	18	- 4¼	Scientific Resources e	12	- 1¼			
-Great West Fin. e	17¾	- 2¾	(Sunasco)					
Hawthorne Fin.	8½	+ 1¼	So. Rity. & Util. b	6	- 1			
-Imperial Corp. e	10¾	- 2¾						
-LFC Financial (Lytton) e	8¼	- 1½	<b>DIVERSIFIED COMPANIES</b>					
Trans-Cst. Inv.	4¾	- ½	Boise Cascade e	66%	- 7%			
Trans World Fin. e	10¾	- ¾						
Union Fin. b	10½	- 1½						

a-stock newly added to table. b-closing price ASE. c-closing price NYSE. d-not traded on date quoted. g-closing price MSE. h-closing price PCSE. k-not available. -Computed in HOUSE & HOME's 25-stock value index. y-adjusted for 2-for-1 split. z-adjusted for 3 for 1 split. NA-not applicable.

Sources: New York Hanseatic Corp. Gairdner & Co., National Assn. of Securities Dealers, Philip Beer of Russell & Saxe, American Stock Exchange, New York Stock Exchange, Midwest Stock Exchange, Pacific Coast Stock Exchange. Listings include only companies which derive a major part of their income from housing activity and are actively traded.

# The Seamless Beauties

One-Piece Tub/Showers and Shower Enclosures from Owens-Corning Fiberglas

Show these convenience features to your prospects.

High and low soap receptacles. Sculptured armrests that hold cosmetics and toiletries. Wide rim seat for bathing children. Diagonal bathing area for more room. No tiles or joints to work loose. Easy cleaning.

The seamless beauties . . . six decorator colors plus white.

For more information, write to Owens-Corning Fiberglas Corp., Toledo, Ohio 43601, Attn: T. S. Meeks.

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TRADEMARK ©

**Owens-Corning is Fiberglas**



## The prudent budget fails to hit housing; it even helps

President Nixon's prudent \$200.8 billion budget for fiscal 1971 contains some healthy increases for existing housing programs.

Housing portions were billed as "pared to the bone," but outlays in the year beginning July 1 will rise to \$3.8 billion, up \$735 million from this year.

Existing programs will be the chief beneficiaries, innovations being noticeably absent.

By far the largest increase will be for low- and moderate-income programs.

Support for new communities will increase. While this is not a federal outlay, the government says it will provide support for 10 new communities next year, compared with an expected six this year.

Healthy increases are recommended for model cities as well as housing and urban research, and the open space land program is given a sizeable boost.

Secretary Romney, in calling it a bare-bones budget, said:

"Our department took the lead in attempting to secure a firm and hard budget. This is more important for housing than any other sector, since trimming of the budget will help ease inflation."

**The other FHA.** A sizable increase in units of low- and moderate-income housing is scheduled in fiscal 1971. The big-

gest jump will be in units subsidized or funded by the Farmers Home Administration.

Rural-community housing funds should produce commitments for 146,000 units in fiscal 1971, up from 82,000 this year.

A much greater increase is found in rent supplement and rental assistance units, with 166,000 units committed in fiscal 1971, up from 126,000 in the current year. Contract authority is budgeted at \$220 million, up from \$135 million.

The higher contract authority will result in total housing commitments for low- and moderate-income units of 597,000, up from 502,000 in fiscal 1970 and substantially higher than the 269,000 units of fiscal 1969.

**Advance funding.** In asking Congress for the \$140 million in contract authority for homeownership assistance for fiscal 1971, President Nixon also is seeking another \$140 million in advance funding authority for fiscal 1972.

This is "to assure builders a continuing market for the housing they plan to build."

Likewise, the budget seeks \$75 million of advance funding for rent supplements, and \$145 million advance funding for the rental housing assistance program.

In asking for increases in contract authority for fiscal 1971, President Nixon

also sees big boosts in actual outlays next year for practically all programs designed to aid low- and moderate-income families.

**Model cities.** The HUD request is for \$530 million for the model cities program in fiscal 1971. This is a big jump from the current \$300 million estimated outlay, and it is aimed at moving the first 150 model cities from the planning stage to actual development.

Urban renewal gets no increase. It is held at its \$1-billion annual level.

The Administration also indicated some plans for support of the mortgage market.

Of particular interest is the mortgage-backed-securities program, slated to be in full swing before the year is out.

The budget anticipates that fees from the guaranty of mortgage-backed securities will give the Government National Mortgage Assn. some \$400,000 of income in excess of operating costs.

A mortgage-bond type of security may also be issued this year if interest rates decline as the Administration expects.

The decline in interest rates is also expected to ease pressure on the Federal National Mortgage Assn. The budget anticipates FNMA purchases of mortgages totaling \$5 billion in fiscal 1971, down from an estimated \$6 billion this year.

NEWS continued on p. 32

*Only our name is different...*

*You've known us as... **Tarter, Webster & Johnson.***

*Now we're...*

## AMERICAN FOREST PRODUCTS

Only the name is different. The quality products, the prompt service, the friendly salesmen you've known for years are the same.

Manufacturers and distributors of lumber, plywood, millwork and other fine products for the construction industries. Since 1910.



AMERICAN FOREST PRODUCTS  
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Fiberglass



Aircraft hangar



Service station



Flush wood



Panelled wood



Flush steel



Ribbed steel

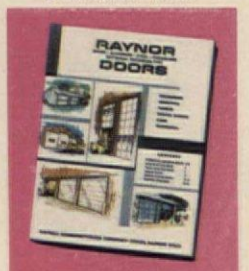
## 7 garage doors to make your job easier... only from Raynor

Choose your material . . . wood, fiberglass, steel, aluminum. Pick your style . . . industrial, commercial, residential. Then check with Raynor, because only Raynor builds them all. For all architectural styles. And they're all backed by the finest guarantees in the industry. Plus design advantages like customized hardware to match the installation. Extra-heavy tracks. Custom-wound springs. Service and replacement ad-



vantages like "forever" parts lists recorded on data film. Expert engineering consultation in the field and from the factory. The complete range of accessories — lights; special panels; windows; electric openers and controls for all doors; headroom hardware. Name your garage door problem and Raynor will solve it. You can depend on that. Raynor Manufacturing Company, Dixon, Illinois 61021.

Send for literature



**RAYNOR**..

The Brand You Can Depend On

# Let the value homes program help

Southern Pine Association offers a complete model home and

HAYES, HOWELL & ASSOCIATES, SOUTHERN PINES, N. C.

When business is good for you, it's good for us, too. That's the reason for the Southern Pine Association's new concept of Value Homes . . . a new merchandising idea for home and apartment builders.

Value Homes offer your prospects the "something better" they should have. Homes with year round temperature control, the latest ideas in kitchen planning and modern bathroom design, and pre-shrunk Southern Pine structural lumber.

If your homes and apartments have all these features, the Southern Pine Association will provide you with free merchandising tools to sell them. For more information about how you can participate in this program, send in the coupon at right.

**In spacious decks** and secluded patios, Southern Pine creates new dimensions of design and livability.



### Airy spaciousness

keynotes this kitchen, yet every foot has been utilized for the utmost convenience.



### Year round heating and cooling

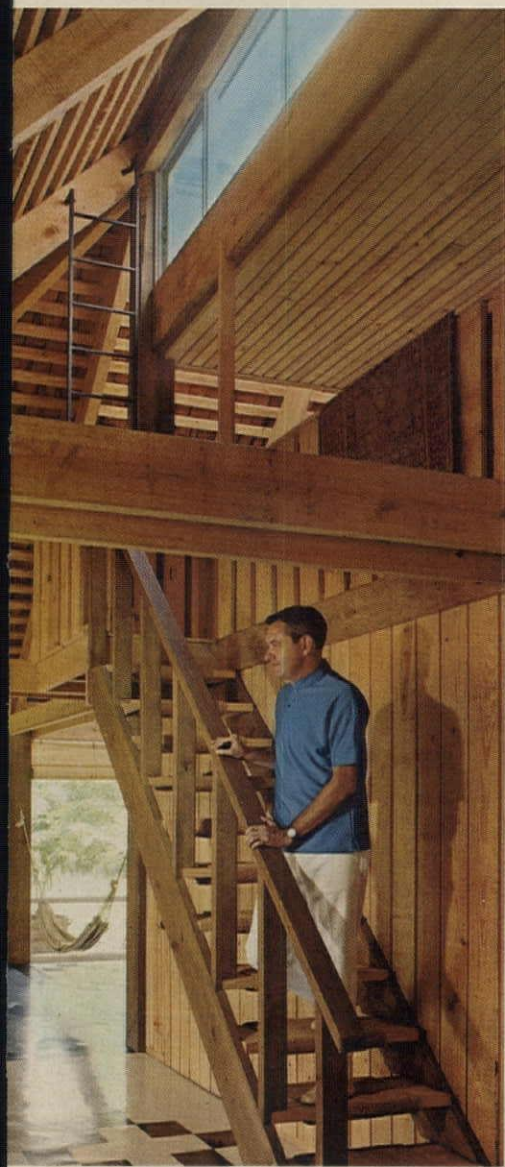
systems for easily adjustable heat in winter and coolness in summer.



# sell your homes & apartments

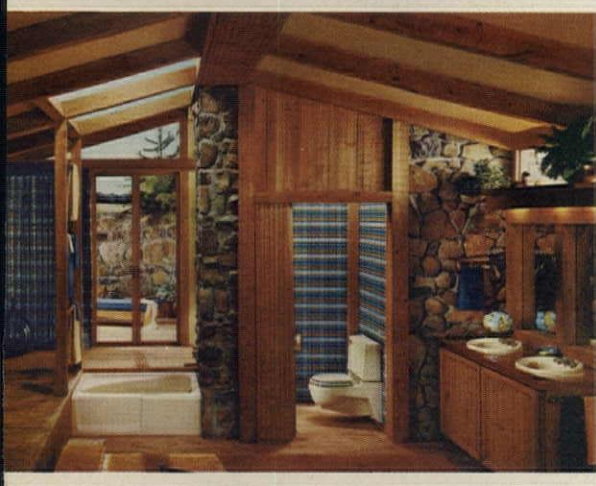
apartment merchandising kit free to participating builders.

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**Rough sawn Southern Pine** siding lends individual charm and a feeling of harmony with surroundings.

**Grademarked pre-shrunk Southern Pine** framing is now coming out in the open with beams, roof decking and posts often exposed to decorate the interior.



With Total Living, the bath is a living area, too. Newest ideas include dressing rooms, storage space, and a fresh, modern design.



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- Your own newspaper advertisements designed to appeal to the buyers in your area.
- Customized radio commercial created for your market.
- Full-color model home and apartment displays and signs.
- Dramatic full-color spreads supporting this program in national consumer publications.

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I would like to have a copy of the illustrated brochure, "Value Homes for Total Living."

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ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

## Specify Southern Pine

AS PRODUCED BY THE MEMBER MILLS OF THE SOUTHERN PINE ASSOCIATION

## Levitt joins the move to modules as a labor saver

Can Levitt do it again?

Will modulars be the medium for matching the stick-building success story?

Levitt and Sons Inc., an ITT subsidiary since 1968, has an immediate \$6 million that says "Yes," and other funds waiting in the wings. It has formed a subsidiary, Levitt Housing Systems Corp., that will break ground this month for the first of a projected six modular housing factories across the nation.

The cast has changed a bit, what with ITT being the big daddy and a network of skilled managers forming the operating company, but the production may well rival the Levittown drama.

The \$2-million factory will contain \$1.1 million worth of equipment and will be bankrolled for \$3 million of start-up costs. By March 1971, it is expected to be turning out 2,000 townhouses annually at \$20,000-\$25,000, depending on land costs.

**Turning a profit.** Modular housing has thus far been a red-ink item on construction company books, but Charles L. Biederman, president of the new subsidiary, is confident that Levitt can turn a profit on factory-built houses. He explains:

"We can be our own client. We have the land to put the houses on and the marketing facilities to sell them. It's easy to build a good box. It's a lot harder to market housing. We can do it all."

Prototypes have been produced and sold, and Biederman says the experience has been good. The \$3 million start-up costs, said Floyd Weaver, vice president and director of operations, are "conservative figures" and may run lower.

**The labor problem.** Estimates of initial savings compared with on-site construction are from 5% to perhaps 10%, but these calculations are not being looked at nearly as hard as what is expected a few years hence.

The rising cost of craftsmen working in the field, and the dwindling supply of this skilled labor, point to a widening gap between factory and on-site construction costs, according to Biederman.

The key to factory-built housing, said Weaver, is division of labor, just as in all industry.

If successful, the Levitt factory will be independent of the shrinking supply of skilled labor, and will be able to exercise true quality control on its assembly built houses.

The 2,000-per-year target is expected to be achieved with about 400 workmen on a single shift. Western Michigan has an ample supply of the semi-skilled and unskilled labor needed for the assembly-line house.

As many as half the workers may be women.

**Next door to market.** The Battle Creek plant will operate halfway between Chicago and Detroit, and location is one of the factors being rationalized in the Levitt approach to modulars.

Less than 200 miles from either market, the factory can truck its output to sites in one day. Trucks can load each evening and depart by morning. The five other plants will be located in similar proximity to potential markets. A trailer can carry half a house, two modules.

**New face of industry.** The Levitt entry into modulars has none of the earmarks of a tentative step. The company's two and one half year feasibility study and financial involvement make the development look like a giant step.

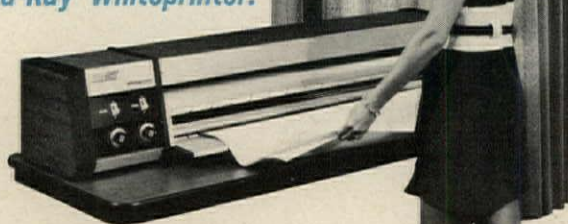
And this accords with what several experts now predict for the housing industry—greater separation of the component activities of land development, house production, marketing, and financing.

All of these will be done by Levitt in its new undertaking, but within the one corporation the production function will be segregated. With the experience of having built 10,000 houses since joining ITT (NEWS, Oct. '67 *et seq.*), Levitt appears to be moving in the direction of more intensive analysis and rationalization of production.

NEWS continued on p. 38

I can take the delay  
out of your day...

with my handy  
Blu-Ray Whiteprinter.



I can make quick check prints for you all day long—at a mere 1½¢ per sq. ft. It's fast and easy—I simply insert your translucent original and diazo paper into my table-top Blu-Ray, and your clear, sharp copy is ready in seconds.

This Workhorse Model 842 has a 42" throat—and variable speeds to 12 fpm. Quick warm-up, easy to move, no hangups over special wiring or plumbing. Set it up anywhere and it's on go.

I can save you time and money—and delete the delay from your day. Two other models to choose from. Hurry, and send for free brochure.

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The ones with the one-year warranty.

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## The \$12 difference

Make your bathrooms luxuriously modern and excitingly feminine with Alsons Personal Showers. Capitalize on today's bright new bathroom trends for as little as \$12 per installation\*. No special rough-in required... many models to choose from. Include Alsons Personal Showers in your new homes... America's freshest new bathroom idea!

\*This average builder cost may vary slightly on model and quantity ordered.



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You are looking at range hoods that are all brushed aluminum, with interchangeable decorator front panels. The unusual styling finally accomplishes for hoods a contemporary built-in look to match built-in kitchen appliances. Air King makes them in vented and ductless models.

No one else makes anything like them at all.



for the built-in look *Air King*

**NEW SQUARED-FRONT RANGE HOODS**

BERNS AIR KING CORP., 3050 NORTH ROCKWELL, CHICAGO, ILLINOIS 60618



# Saleswrapper

That's what the Whirlpool Jac-Vac\* central vacuum system is. Something unusual to help you wrap up the sale.

Something impressive to demonstrate. Something that men and women will want for its obvious advantages.

Jac-Vac has 25 feet of lightweight flexible hose that couples with built-in receptacles around the house. It makes vacuuming everywhere easy.

And unlike ordinary cleaners that lose vacuum power as their bags fill, Jac-Vac keeps its power.

Whether you prefer Jac-Vac with a wet or dry pick-up system, Whirlpool makes several models to take better care of your cleaning needs. And every one comes with a complete set of cleaning attachments in a handy carrying case.

Easy to install, economical to pre-install . . . Why not offer Jac-Vac as an option in every home you build? Simply pre-install our plastic tubing in the walls, right along with your wiring and plumbing. That's all.

Jac-Vac picks up more than loose dirt. Install it. Demonstrate it. And watch Whirlpool's central vacuum system pick up people's interest in your homes.

Call your Whirlpool  
Distributor about Jac-Vac.  
To you, The Saleswrapper.

\*Tmk.



**Whirlpool**  
CORPORATION

Benton Harbor, Michigan



Day & Night electric furnaces can be installed in the upflow, downflow, or horizontal positions, without modification. All our models (except the 10 kw) are wired for two-stage heating. And blowers are belt or direct driven. Electricity means that neither venting nor combustion air is required. Another big feature is the compact

size that allows installation even in very cramped spaces.

Virtually all Day & Night electric furnaces are adaptable to air conditioning without modification. An exclusive Y-shaped plenum makes better, more efficient use of cooling coils for a year 'round system.

Day & Night offers the widest range of gas and electric, residential and commercial furnaces available. That's to be expected from a company that's been growing for over 60 years, a company with two manufacturing facilities, east and west, to provide faster delivery.

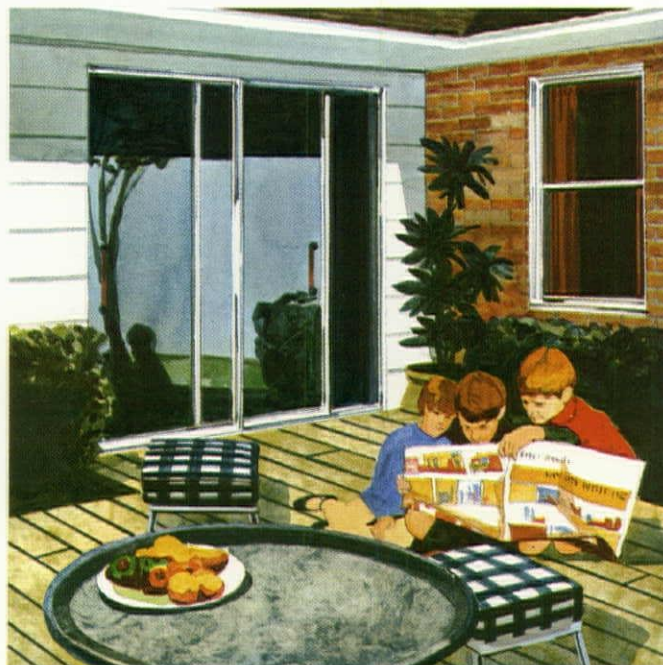
DAY & NIGHT MANUFACTURING COMPANY  
La Puente, California • Collierville, Tennessee

# day & night



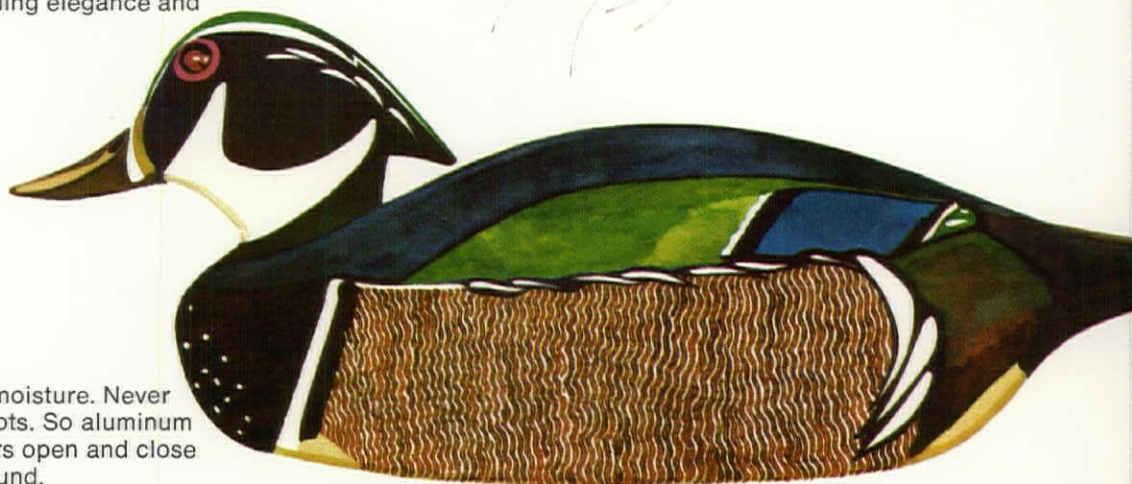
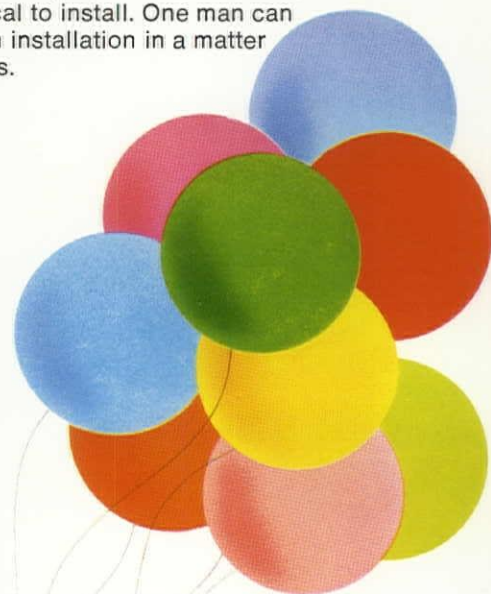
**Our electric furnaces don't know which way is up. And they don't care.**

# Today, aluminum windows and doors are something else.

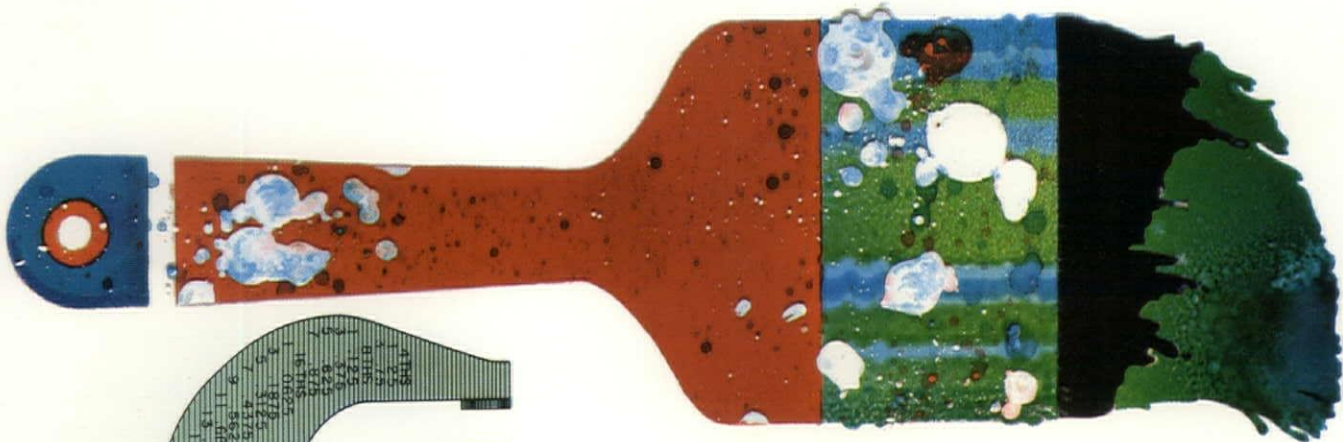


Aluminum looks good... so aluminum windows and doors blend easily and gracefully with any type of construction or decor, lending elegance and dignity to a home.

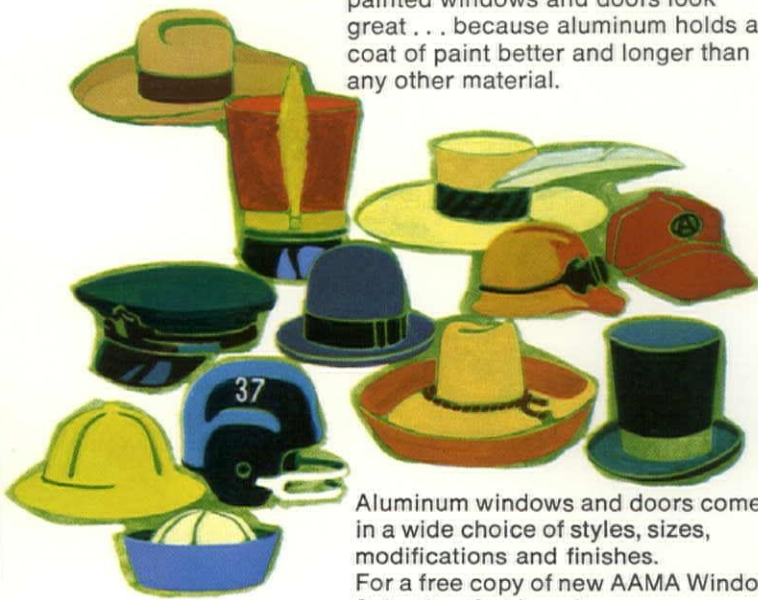
Aluminum is light. It makes windows economical to install. One man can handle an installation in a matter of minutes.



Aluminum sheds moisture. Never swells, warps or rots. So aluminum windows and doors open and close easily, all year 'round.



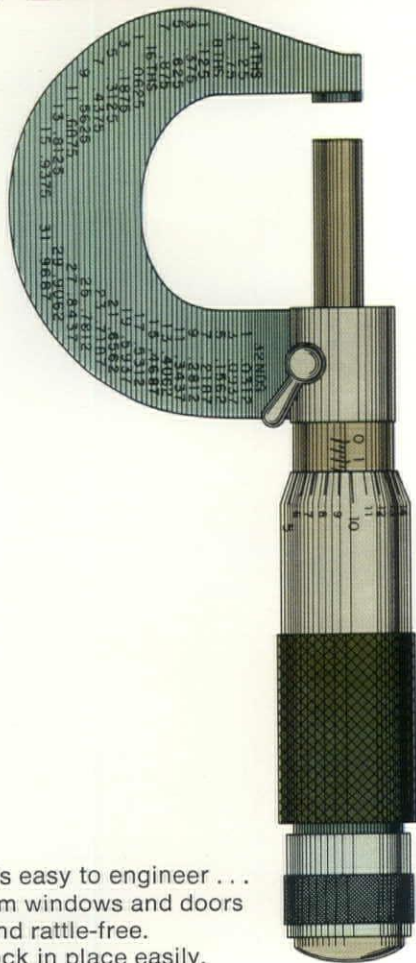
Aluminum makes painting unnecessary . . . because aluminum resists corrosion. But aluminum can make painted windows and doors look great . . . because aluminum holds a coat of paint better and longer than any other material.



Aluminum windows and doors come in a wide choice of styles, sizes, modifications and finishes. For a free copy of new AAMA Window Selection Guide write: Aluminum Company of America, 1701-C Alcoa Building, Pittsburgh, Pa. 15219.

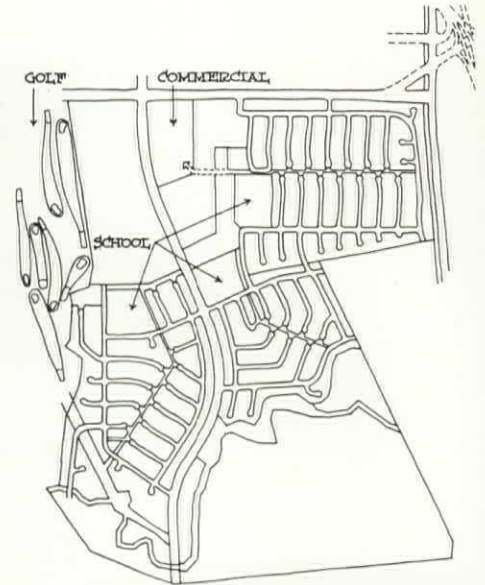
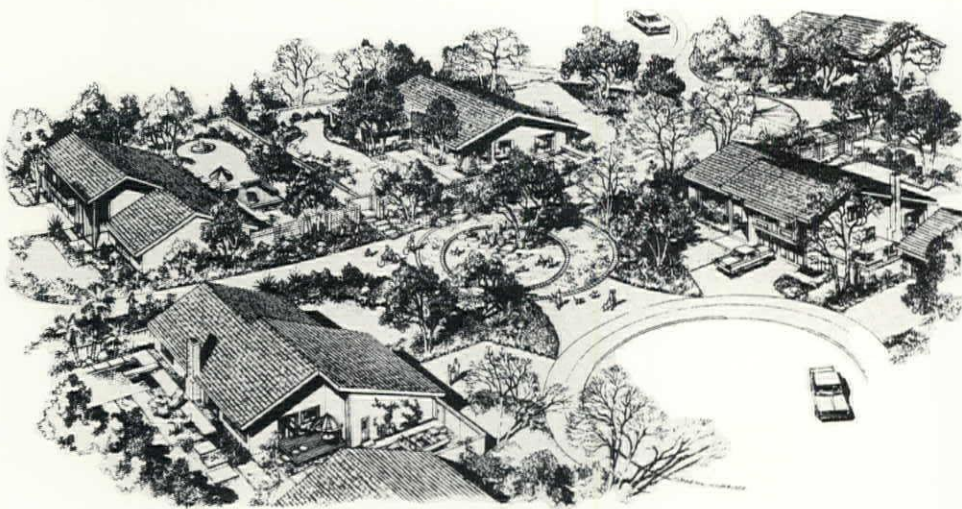


Aluminum is easy to engineer . . . so aluminum windows and doors are snug and rattle-free. And they lock in place easily.



Change for the better with Alcoa® Aluminum

 **ALCOA**



## Sophisticated southern California styling moves northward

In this tight-money market, with sales of all but low-priced single-family homes lagging badly, builders are frantically looking for ways to attract buyers. And for Los Paseos homes of San Jose, Calif., a successful way has been to introduce sophisticated southern California styling into the company's relatively unsophisticated northern California market.

The most appealing feature of the project, according to company president Richard Shea, is the openness of the floor plans. Layouts are generally informal, with rooms and spaces flowing into one another; open-beam sloping ceilings stress the openness even more. The interiors of the models emphasize the new styling (*photo, above*) by the extensive use of mirrors and flamboyant decorating with bright, interesting colors and materials.

Other buyer-attracting features of the 625-acre project are the pedestrian walkways and cul-de-sac planning. Both help to create a relaxed environment despite the project's typically (for California) high density.

Amenities include a recreation building and swimming club, both completed by the time the project opened.

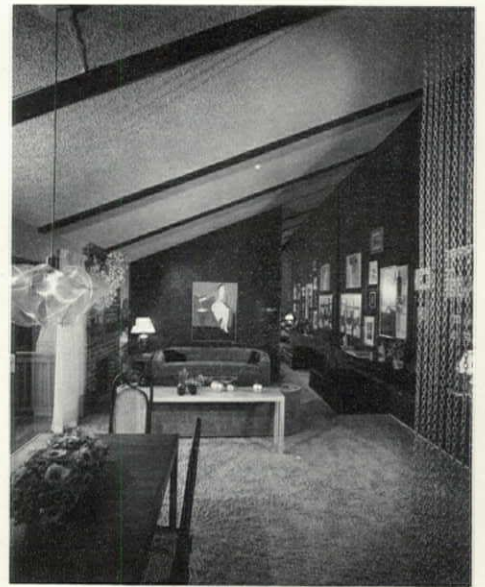
The project contains five different models, with 120 units sold and an additional 39 now under construction. The models are shown below and on page 40. Here is a general rundown on what kind of family is buying each model:

Plan 100 is a three-bedroom unit; 28 have been sold to date at a price of \$26,995. The largest group of buyers is 21-30 years of age; they generally hold white-collar jobs such as engineers and technicians. The average number of children per household is .8, and approximately 50% of the wives work.

Plan 200 is a three-bedroom unit, with another room to be used as a den or a fourth bedroom; 33 have been sold to date at a price of \$28,995. The largest group buying is 31-40 years old, and includes occupations equally divided between white- and blue-collar positions. The average number of children is 2.5, and 20% of the wives work.

Plan 300 is a four-bedroom, two-story unit; 28 have been sold to date at a price of \$30,995. The largest buying group lies between 29 and 35 years of age. Most buyers are professional men. The average number of children is two, and about 40% of the

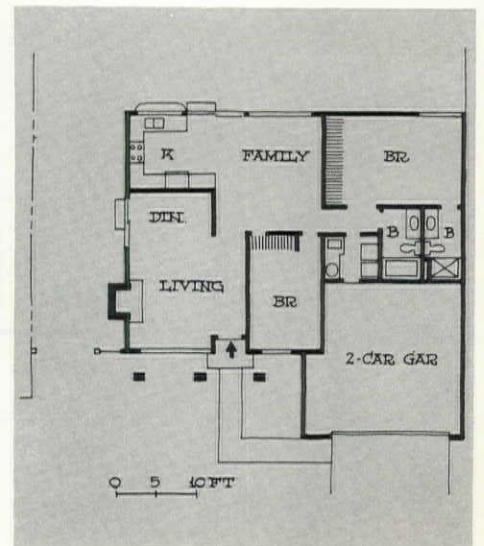
*Story continued on p. 40*



**INTERIOR DECORATING** is flamboyant in the use of colors, unusual materials, and styles.



**PLAN 700**, two-bedroom two-bath unit, stresses informality in living/dining and activities/kitchen areas.

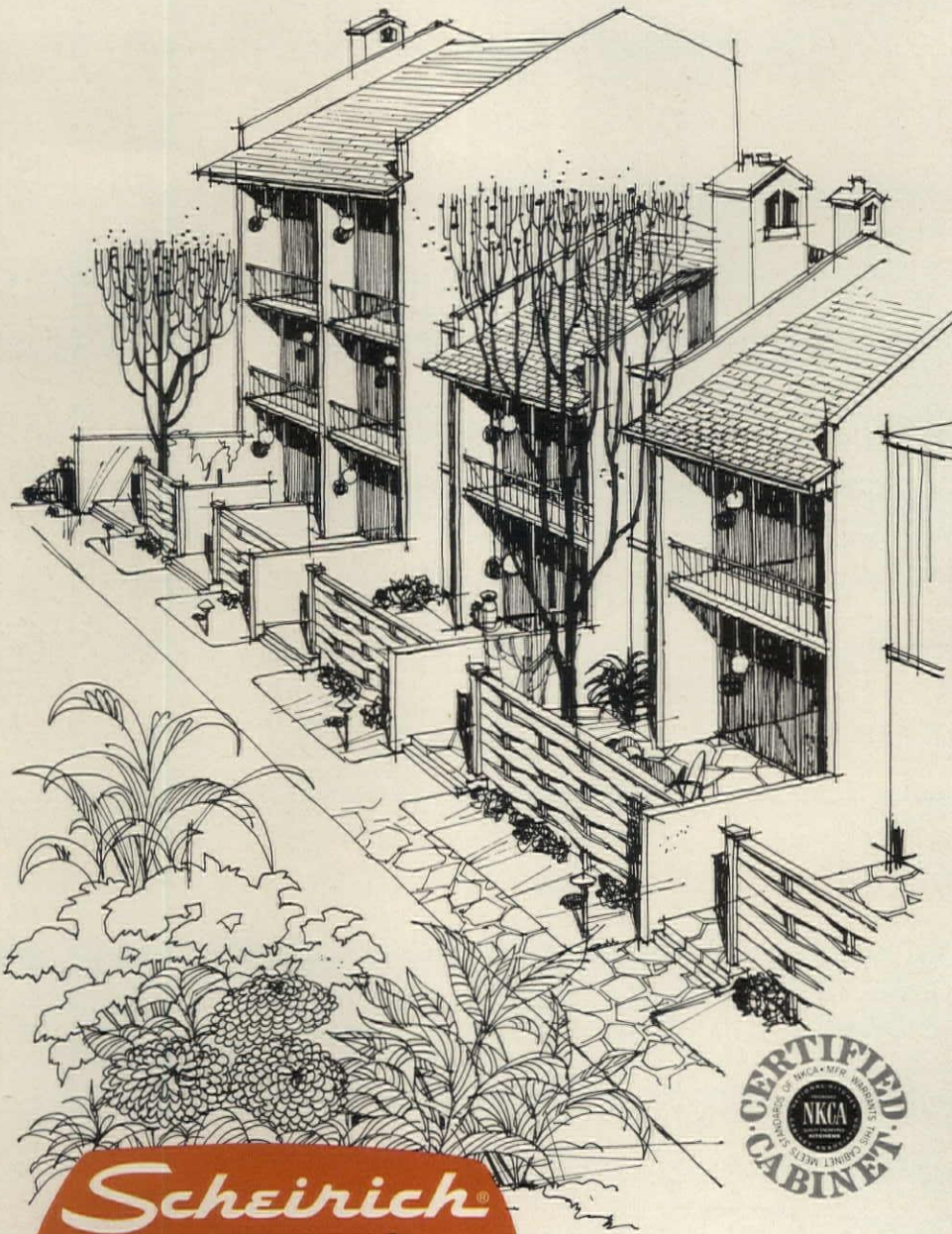




# NEW FOR THE

# 70'S

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**Scheirich**  
KITCHENS

# GARDENCOURT\*

COLLECTION

H. J. SCHEIRICH CO. • P.O. BOX 21037 • LOUISVILLE, KY. 40221

\*T.M. Reg. U.S. Pat. Off. Applied For

**California styling (continued)**

wives in this buying group work.

Plan 400 is a four-bedroom, two-story unit with another room to be converted into a den or fifth bedroom; 24 have been sold to date at a price of \$32,995. The largest

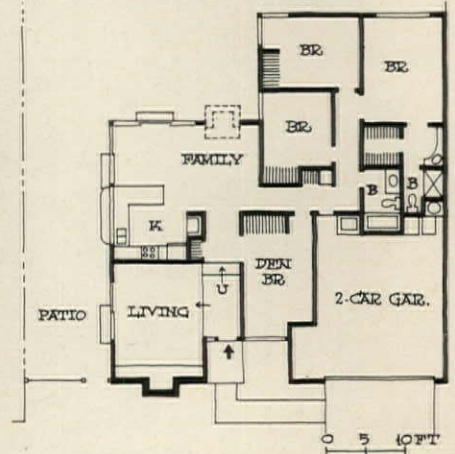
buying group is 31-50 years of age, with most buyers holding white-collar positions. The average number of children is 2.8, and about 95% of the wives work.

Plan 700 is a two-bedroom unit; seven

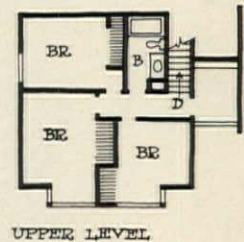
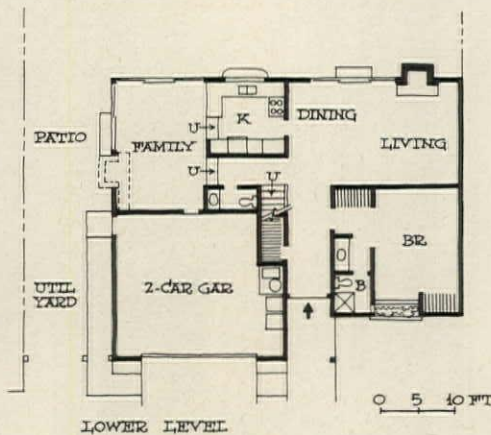
have been sold to date at a price of \$23,995. The buyers in this group are either in the 21-30 age bracket with no children, or are much older, with grown children who no longer live at home.



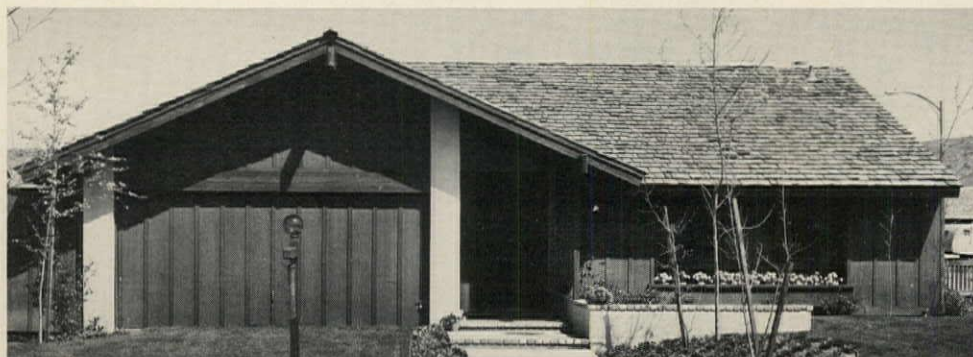
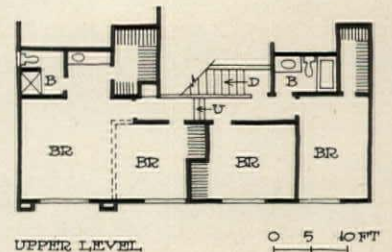
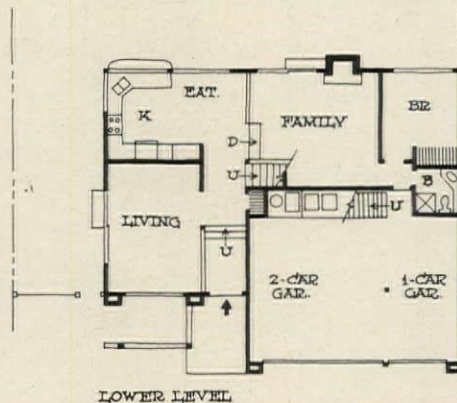
**PLAN 200** is a three-bedroom, two-bath unit, with a convertible fifth room for den or bedroom.



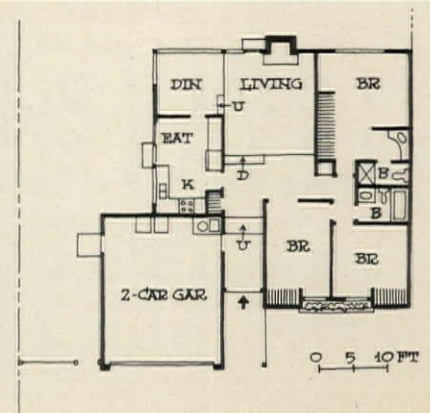
**PLAN 300** is four-bedroom, two-story unit, with master bedroom situated for privacy on first floor.



**PLAN 400** is four-bedroom, two-story unit, with a convertible fifth room for bedroom or retreat.



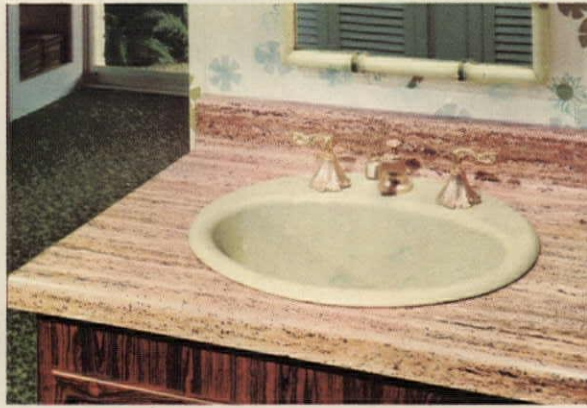
**PLAN 100** is three-bedroom unit, featuring more formal arrangement of living/dining areas.



# Formica adds sales appeal ...and real profit... to every room.



Kick the tile habit with Panel System 202 tub surround. From \$1.75 per square foot installed.



Laminate-surfaced vanities and tops available in sizes and colors for every bath. Approximately \$80.00 for 36" models, less bowl and fittings.



Colorful Molded-Stone® laundry sinks. About \$70.00 for double tub model, plus accessories and installation.



Molded-Stone® floor sink is handy for a multitude of clean-up jobs. Approx. \$100.00 plus fittings and installation.



Laminate-surfaced kitchen cabinets, like this 24" x 30" wall unit, begin at \$30.00, depending on trim detail and hardware.

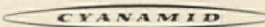


The Trintessa® shower goes in fast. Approx. \$300.00 for 36" model plus installation. Others to 60" wide.

There isn't a room in the house where you can't put the practical elegance of FORMICA® products to work profitably. That goes for new construction and remodeling jobs, commercial and residential. Kitchens . . . bathrooms . . . laundries . . . mud rooms . . . all around the house . . . there are dozens of ideas to consider from Formica, dozens of colors, patterns, and woodgrains to

choose from. And every one can mean extra beauty, durability and customer satisfaction. Get the story in handy free folders; ask your Formica or Fiat representative or write Dept. HH-3, Formica Corporation, Cincinnati, Ohio 45232.

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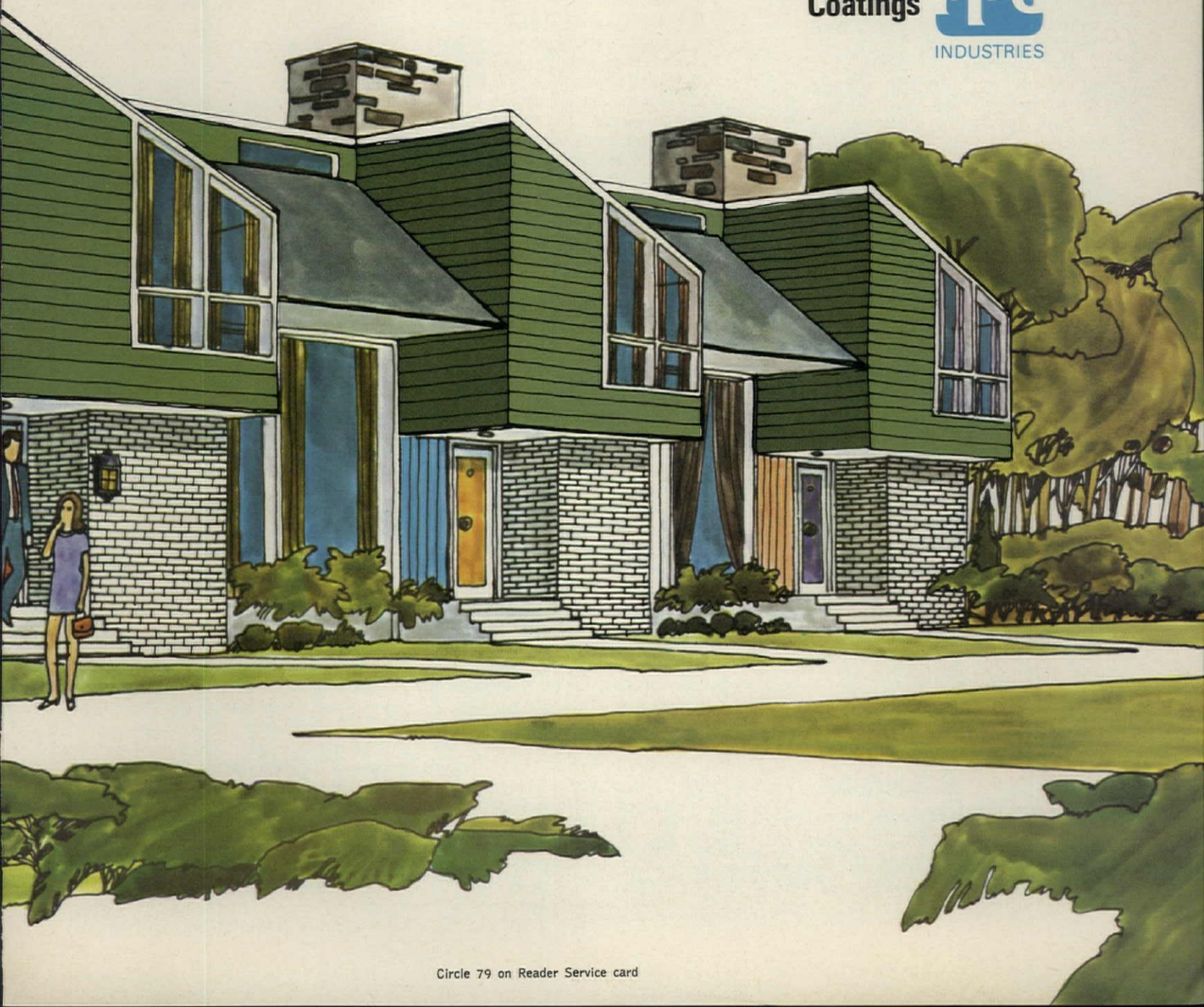
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## THE APARTMENT SCENE

By H. Clarke Wells\*

### Some fallacies of market forecasting

How do you react when local housing prognosticators start warning you—and your lenders—that you're headed for an overbuilt apartment market?

If you've got the manpower and the time, maybe you dig into their data to see if they really know what they're talking about. And if you dig far enough, nine times out of ten you'll find the facts and figures are okay—but they don't support the forecast. Reason: the statistics are too superficial to predict such an intricate phenomenon as apartment demand. For example:

One of our strong markets in the San Francisco Bay area is Santa Clara County, stretching from Palo Alto to San Jose. Multifamily construction has been on a rampage here, and last summer a market forecaster sobered a realty men's luncheon with the prediction that the county would be overbuilt with apartments in about a year. How did he figure this? By comparing the county's annual population growth with its annual volume of building permits, he discovered that apartment permits were outpacing the projected influx of new renters.

Specifically, the forecaster noted that people have been moving into Santa Clara County at a rate of 36,000 annually and that this year the influx is supposed to jump to 46,000. To translate this into housing customers, he took the standard ratio of 3.4 persons per household, did his division, and figured that the county's housing producers had 10,000 new customers last year and will have more than 13,000 this year. Then he cranked in last year's production ratio—slightly more than 50% apartments versus slightly less than 50% houses—and decided that apartment builders couldn't safely add much more than 6,500 new units to the market this year. Finally, he added up multifamily building permits and found them dangerously close to the 6,500 mark.

Nobody faults the forecaster's figures. But his interpretation raises at least three basic questions:

1. *How can you predict apartment demand without taking into account different apartment types?* For example, shouldn't the projection be made in terms of family-oriented versus adult-only apartments? As more of us apartment developers face up to the almost desperate



WELLS

need for rental units that accept children, the apartment market is going to skyrocket beyond anybody's predictions. And to be hard-nosed about it, how can one say that Santa Clara apartment developers should build for only half of the county's 13,000 new families this year just because figures show that apartments accounted for only 50% of new housing units

last year? That other 50% is just a potential market that apartment builders can't help but invade as house prices continue to rise above the means of more and more families.

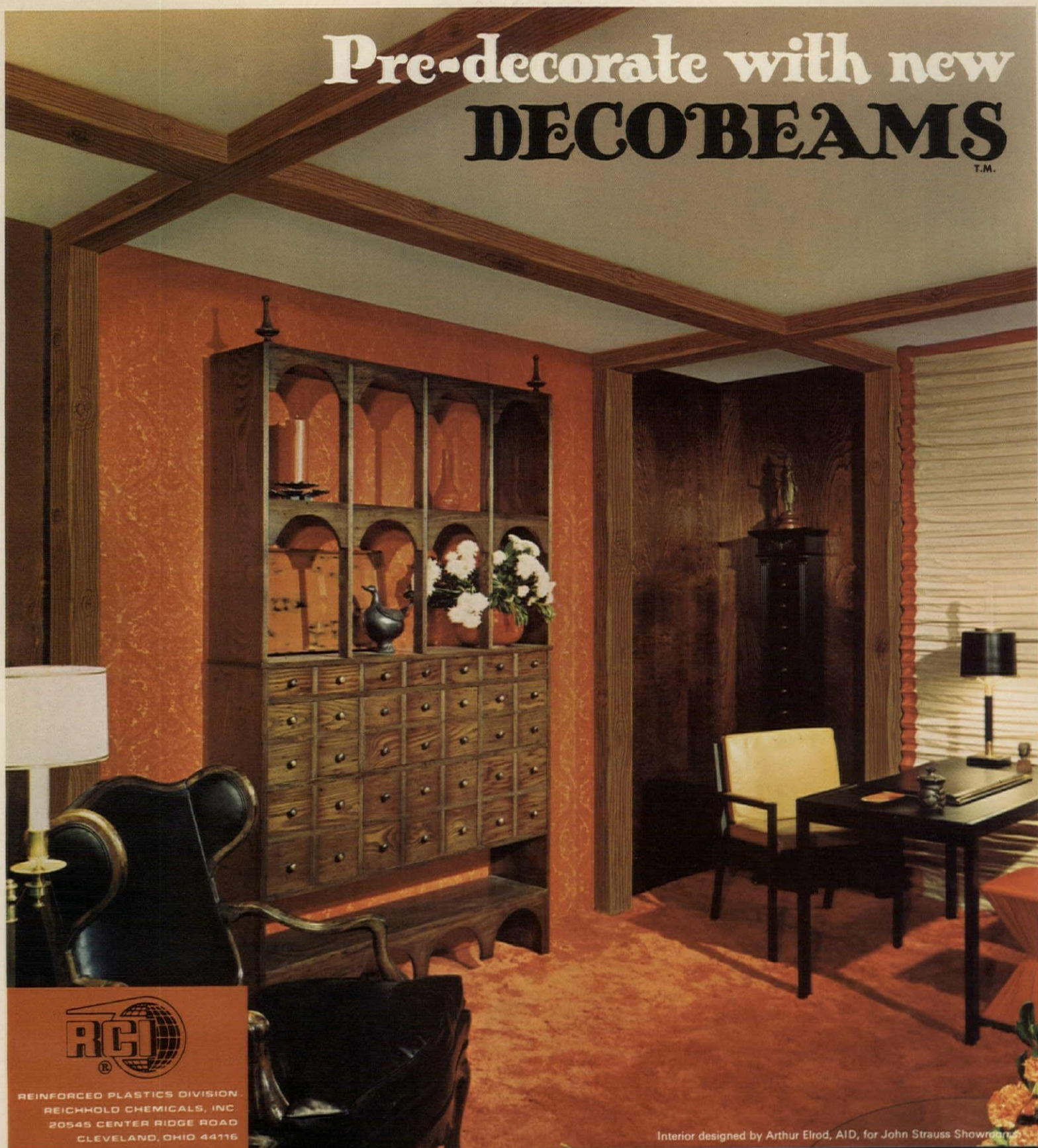
2. *How can you predict apartment demand while ignoring the demand for different unit sizes?* For instance, Santa Clara County has been saturated for about a year with two-bedroom, two-bath apartments. We've adjusted for that by cutting our proportion of two-and-twos in new projects to less than 10%, compared with our previous 30% to 40%. But that's no indication of general market saturation. Two-bedroom, one-bath apartments are going strong, and people are on waiting lists for ones and studios.

3. *How can you predict overbuilding without taking price ranges into account?* How many of the Santa Clara building permits are for high-rent apartments and how many for medium-rent units? The overbuilding predicted may decimate the luxury market without ever touching the medium ranges. In fact, instead of basing multifamily-market predictions on the ratio of apartments to single-family houses, doesn't it make more sense to use the ratio of low- versus medium- versus high-priced apartments—and then to compare the income levels of prospects with the builders' rent-level projections? This could show, for example, that apartments renting for 24¢ a square foot and ranging from \$139 one-bedroom units to \$229 two-and-twos are headed for trouble, and builders would listen.

To sum up, purely quantitative research has never told much about the house market, and it tells even less about the apartment market. The latter has become far too sophisticated to be sized up with raw numbers. In fact, to an apartment developer who really knows today's market, a forecast of overbuilding may be the tip-off to a new market opportunity.

\* Columnist Wells, formerly a House & Home senior editor, is marketing manager of L.B. Nelson Corp., a large apartment builder based in Palo Alto, Calif.

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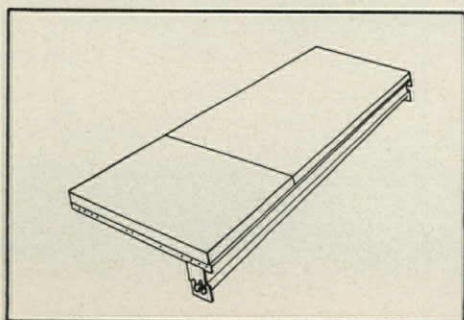
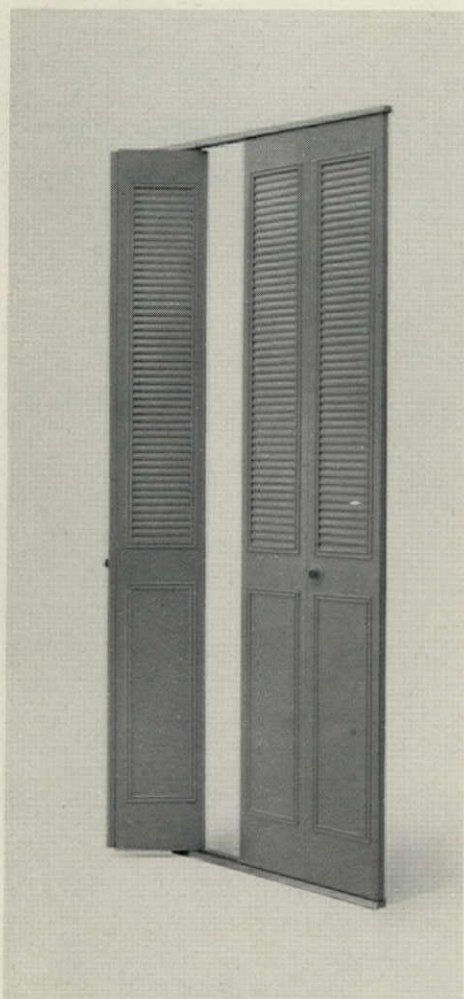
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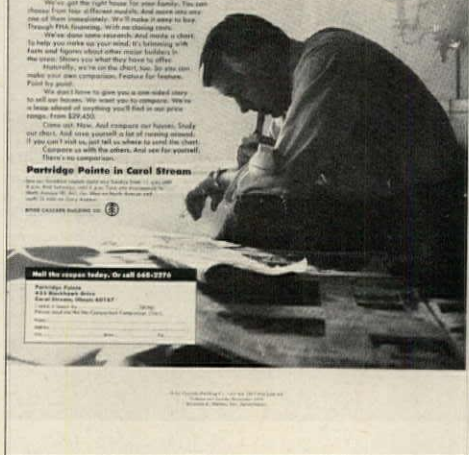
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**The transferee market attracts a pair of big ones**

The housing division of Boise-Cascade Corp. (which may now be the largest U.S. builder) and California's giant Title Insurance Corp. are both bidding for different pieces of the booming market in executive transferees (H&H, Feb.).

Corp., has developed a new service for companies that transfer personnel. Its ad (above, right) was run twice in the Wall Street Journal's national edition (they have set up offices in New York, Chicago, and Los Angeles).

Pitched directly at the confusion and insecurity of the transferee househunter, the newest ad (above, left) for Boise-Cascade's Chicago-area development, Partridge Pointe, shows a motel-bound man studying local real estate ads. By implication, it suggests that the man is puzzled and that Partridge Pointe is the answer to his problem. The ad, to run regularly in *The Chicago Tribune*, offers a free chart comparing Boise-Cascade's houses with those of competing builders. By some happy coincidence, the Partridge Pointe houses came off very well, indeed, in comparison with their competition.

For a fee paid by the employer, TI appraises a transferee's house and buys at the appraised market value. (The fee ranges from 6% to 8% of the appraised value.)

Working the employer side of the transferee street, TI Transfer Service Corp., a wholly owned subsidiary of Title Insurance

If the house is sold for more than the appraised value, the excess is refunded to the transferee. If it cannot be sold for the appraised value, the loss is shared by TI and the employer on a sliding scale based on how long the house was on the market.

For the original fee, TI also lists the transferee's housing requirements with the builders and/or brokers and makes financing available to him. The company accepts no additional fees or commissions from selling agents.

**Going hunting for zoning? Here's ammunition**

For builders facing rezoning hearings, the following hints are offered by John Fagan, vice president of Stanley Edge Associates, who has shepherded dozens of developers through these ordeals.

and renderings, will help them understand your proposal.

1. Consult your public relations man even before your attorney. Getting a site rezoned is more of an emotional problem than a legal one.
2. Tailor your presentation to the level of sophistication and/or the prejudices of officials who make the decision. People respond differently to different approaches.
3. Remember the officials' problem. They must answer to others for their decision, and you must give them the facts and the reasons to justify their actions.
4. Don't get too complex. Local officials are rarely professionals, so simple language and clear visual aids, such as charts

5. Provide guidelines for an intelligent decision. You must enunciate the standards by which you create a good environment, so that officials can judge your success or failure by those same standards.
6. Watch your step in using professional witnesses. They won't be believable, for example, if they have ever testified to opposite conclusions in other cases.
7. Think and sell environment. Especially in multifamily developments, the way the development looks and affects its neighbors will be the critical question. Good environment should be your prime design goal anyway, and environment can be the strongest word around which to build a strong case for rezoning.

NEWS continued on p. 50

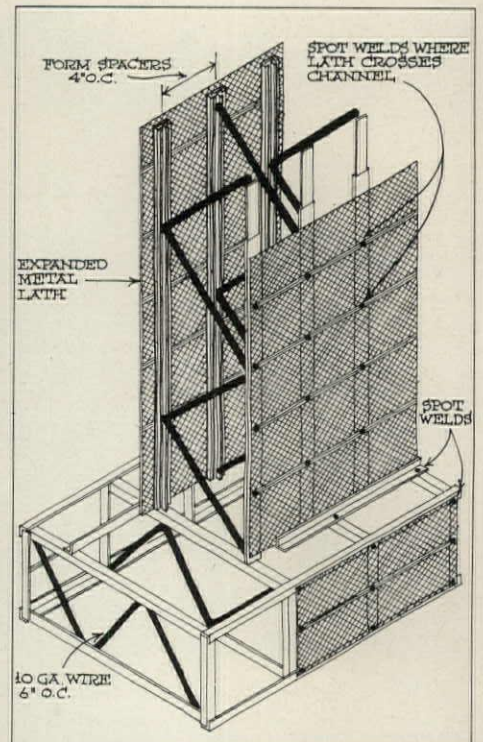
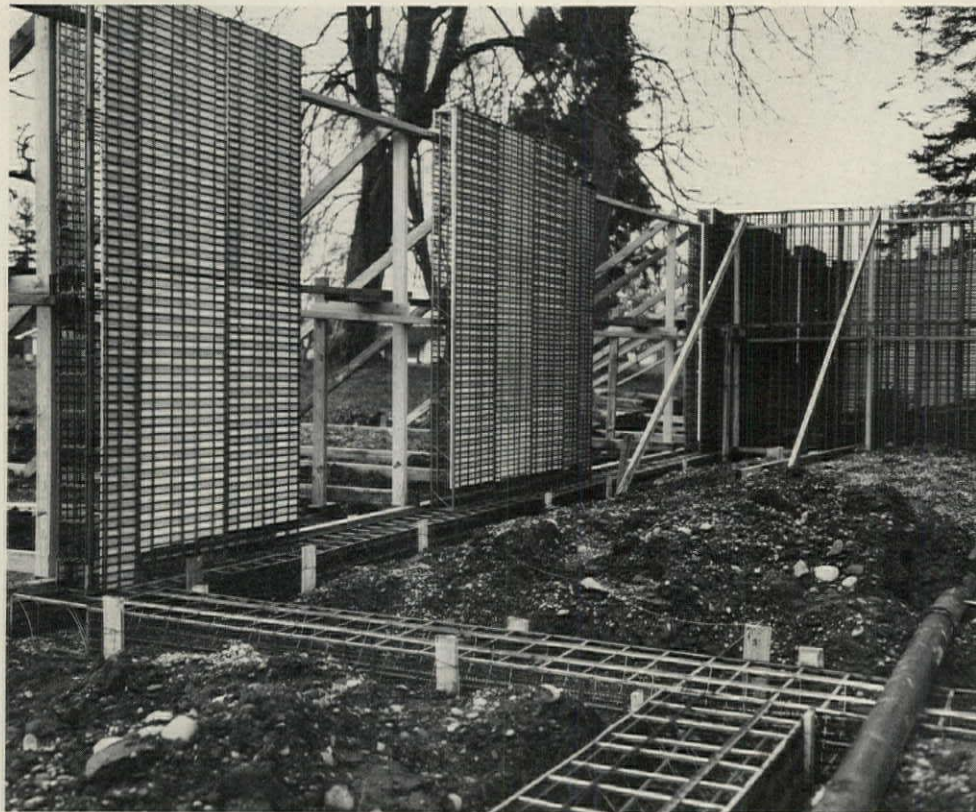


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STEEL-MESH WALL PANELS are set on wide footer panels. Insulation (photo, left) can be installed on inside face before pour.

## Here's a new concrete wall system that needs no form stripping

The reason is there aren't any forms in the usual sense of the word. Instead, prefabricated mesh panels (photo, above) are set up in the same way forms are. When the concrete is poured, it squeezes through the mesh, making the steel an integral and permanent part of the wall.

Rediform, a patented product of Merrill Development Co., Eugene, Ore., is available in a range of sizes that covers most uses of concrete in housing and light commercial work: footers, foundations, curbs, retaining walls, etc. The system has also been used to build a completely concrete house (below); the panels used (above) had rigid foam insulation, installed at the factory, inside their inner mesh face. After

the concrete was poured (the house is monolithic, since all concrete could be poured at the same time), the outside walls were covered with stucco and the inside walls were plastered.

The inventor, Ronald Merrill, claims that Rediform can cut the cost of concrete walls considerably. He says that a 6 in. Rediform wall, installed and trowel finished on both sides but without insulation, costs \$1.40 a sq. ft. He compares this to a concrete wall conventionally built with plywood forms which costs \$2.05 a sq. ft. in his area. Another advantage, he says, is that the cost of a Rediform wall is constant, while the cost of a conventional wall will vary with the cost of plywood for the forms.



POURED CONCRETE oozes through steel mesh, is trowel smooth to cover steel. Stiffer mix oozes less, lets mesh act as lath for finish.



UNFINISHED HOUSE has concrete walls poured. Steel mesh is exposed to receive stucco finish.



FINISHED HOUSE looks like conventional stuccoed model. Inside walls are plastered.

NEWS continued on p. 52



# The Beautiful Alternative

**Team "Tedlar" surfaced siding with brick for total low maintenance and reduced construction costs.**

Now, long-lasting, low maintenance has a bold new face—brick used in conjunction with siding pre-finished with Du Pont TEDLAR®. It's a combination that offers unlimited design possibilities. It's practical — outstanding in low-maintenance performance. And siding surfaced with "Tedlar", installed, costs less than half as much as brick in most areas.

"Tedlar" is a solid-sheet vinyl fluoride finish. It's factory-applied to siding at the time of manufacture. It's 8 to 10 times more fade-resistant than field-applied, oil-based paints and 3 to 4 times more so than ordinary baked-enamel finishes.

Nothing can permanently stain "Tedlar"—even mildew, tar and cement splatter clean off easily. And it's amazingly resistant to weathering and erosion. Even after 20 years of exposure, the protective finish of "Tedlar" should be thicker and stronger than ordinary baked-enamel finishes when new.

It all adds up to a beautiful exterior that is going to stay beautiful and new-looking for decades — and practically take care of itself. And that, with lower installed cost, is the real beauty of TEDLAR.

"Tedlar" surfaced sidings are available in nine contemporary colors and

white in lap, board and batten, and sheet styles, and also in fascia and trim.

So consider the beautiful and practical alternative—"Tedlar" surfaced siding and brick for your next apartment or turn-key building. For further information, including cost-saving case-history reports, write Du Pont Company, Room 8651, Wilmington, Delaware.

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**TEDLAR®**

The solid-sheet vinyl fluoride finish for pre-finished house siding.



## This modular vacation house manages to avoid the standardized look

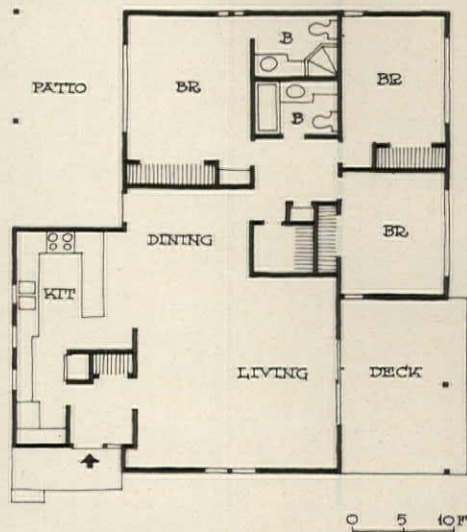
The typical modular house is made up of one or two rectangular modules. This one has four—two of them long, two short—and the result is to break up what would otherwise be long exterior walls, allow a more flexible plan (*right*), and generally make a much better looking house (*above*).

New World Homes of Hawley, Pa., has marketed this new model at Hemlock Farms, a Pennsylvania vacation project (H&H, Nov. '68), for \$24,900—with appliances, but without land. Designed by Roy S. Johnson, the 1,300-sq.-ft. house has three

bedrooms and two full baths.

New World Homes offers an unusual feature: during construction, the 10-ft.-wide modules are bolted together in the factory to assure proper alignment, then unfastened and shipped. At the site they are moved off the truck and onto the foundation by dollies on steel H-beams.

The company, which now builds six units per month, plans to franchise builders in a 300-mile radius of the plant and is considering manufacturing/marketing franchises outside this area.



**LARGE OVERHANG** shelters entrance. Use of four modules allows the unusual folded-plate roof. Trellis, in background, is above side deck.



**LIVING ROOM** gets open, airy feeling from large areas of glass. Room is almost two full modules wide. Sliding glass door at left opens to deck.



FASHIONS BY ROBINSON'S CALIFORNIA

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Talk it over with your heating-cooling contractor, or contact your local Honeywell office.



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AUTOMATION





**Controlling inflation**

H&H: Congratulations on your fine January editorial—particularly your statement on reducing inflation. Inflation must be brought under control—even though that may temporarily hurt our own industry. But in the long run, a sound fiscal policy and a sound dollar will benefit all of us.

W. P. CONWAY, vice president  
Cobbs, Allen & Hall Mortgage Co.  
Mobile, Ala.

**Property tax**

H&H: It was with interest that I read your December editorial, and, as a result, learned that I am one of the few people who sees some virtue in the property tax. This bias is to be expected, however, as I've been an appraiser in the Los Angeles County Assessor's office for 15 years. But apart from that, there are good arguments for the property tax.

1. Property is, in part, made valuable by the installation of off-site improvements such as roads, sewers, sidewalks, and so forth. And it is economically sound that the beneficiaries—the property owners—share in that cost.

2. Property owners directly benefit from fire protection and police protection, the property-preserving activities of government. The value of the property protected is the best measure of the benefits received. The property tax allocates the burden by this measure.

3. A tax burden on idle resources, if it is not too onerous, prods production on those resources.

4. The property tax is extremely difficult to evade, which is one of the reasons many people are bitter about it. The income tax, as is apparent by present congressional investigations, is not uniform in its application. As Senator John Williams of Delaware pointed out, hundreds of millions of dollars are evaded or uncollected annually. And the exchange or sales tax is very difficult to police. Some estimates are that only about 60% of the tax due from small merchants is collected. Large merchants, of course, are much more accurate in their returns. Also, as the sales tax grows in size, so do the schemes to avoid it.

5. No other tax can be collected from out of state or out of country owners of vacant speculative properties. Since the owners seldom make purchases in the state of the sites if they live elsewhere, they do not pay sales tax. As the property is vacant, income is seldom produced, so no income tax can be collected. Yet, the services of local government are contributing to the value of their speculative investment. The property tax is the best means of having them share in the cost of local government services.

In spite of the foregoing, I do not view the property tax, as now structured, as an unrelieved virtue. Certain changes should be made. First, there should be a percentage limitation on it. Two percent of value is a limit that many have adopted as an amount which will (or would before high interest rates) amortize needed improvement bonds and also pay the operating expenses of local government. All of welfare costs and much of education costs would have to be shifted to state or federal government. A fixed limitation on the property tax would permit an investor to more accurately anticipate the future burdens and benefits of ownership. It would enable him to make more precise investment decisions.

The other great weakness is the low frequency of reappraisal and the sometimes shoddy jobs

*Letters continued on p. 64*

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The Berger Convertible meets building challenges from measuring angles, extending lines and setting forms to aligning structural steel and establishing grades for streets. It does these and scores of other jobs fast and accurately—the insurance you need to protect against costly "do-overs." And like every Berger instrument, it's manufactured right here in our Boston factory.

For its moderate price you get big instrument features like a 22-power telescope with coated lenses that focuses 3 ft. to infinity, horizontal circle and vertical arc with double vernier reading directly to 5 min., plus all the other features and superb craftsmanship for which Berger has been known since 1871. See the Berger Convertible...get the feel of it, at your dealer. Or mail coupon for full information. BERGER INSTRUMENTS, A Div. of KMS Industries, Inc., 53 Williams St., Boston, Mass. 02119

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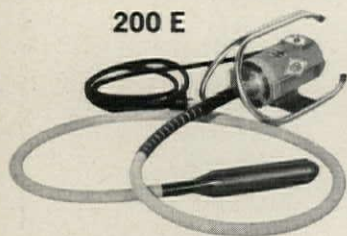
\*All prices F.O.B. Boston, include carrying case and plumb bob. Tripod extra.

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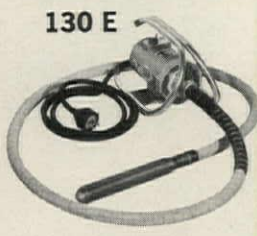
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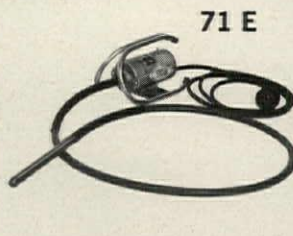
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## LETTERS

continued from p. 63

that are done. This, of course, is a failure of local government. Small jurisdictions should be combined to permit computerized valuation methods which increase both the accuracy and frequency of reappraisals.

The income tax, too, can be amended so as to combine the needed objectives of capital creation, replacement, and maintenance. Surely, as a nation we must pay attention to the maintenance of our existing inventory of housing. To do this, I suggest a simple solution. Permit owners of investment property to reinvest up to 10% per year of the undepreciated improvement value without first having paid income tax on the money. In other words, treat this reinvestment as an expense.

While I may disagree with your solutions, at least you are alert to the problems.

ROBERT C. MASON  
Topanga, Calif.

### Credit and the housing slump

H&H: Your September editorial's conclusions do not seem feasible or practical for housing.

High interest rates are the main cause of present inflation, not the cure for it.

On a standard \$20,000 ranch house, the difference in interest between the usual rate of 6% and your suggested rate of 10% on a thirty-year loan makes the cost to owner an additional \$12,000, or more than enough money to pay the entire cost of all labor in building the house originally—even at the present high labor costs.

Thus, the argument that high labor costs are responsible for inflation is not true. In fact, according to Webster's dictionary, we do not even have inflation because true inflation seems a situation of *too* much available money or credit, and an *over*-supply of goods.

In housing this is not true. There is no over supply of money or credit, and there is a shortage of goods. So why are we trying to fight a situation that does not exist?

The only way to cure the present situation of a shortage of goods may be to loosen money to the point of putting goods and housing back on the shelf clear up to the point of over-production.

STUART M. STEBBINGS, president  
Builders Finance Service Bureau Inc.  
De Pere, Wis.

H&H: Your September editorial implied conclusions regarding the home-construction industry that are at least six months behind the actual facts.

It is conclusions such as yours which belie the seriousness of the housing slump. Widely circulated, they may serve to further deteriorate this industry, since they only add fuel to the opinion of responsible government and banking officials that a recession is not being fostered. With continued misleading statements and governmental inactivity, a full-scale recession will be a painful reality before the giant national bureaucratic system can initiate counter-effective measures.

The increasing number of unemployed construction personnel and the rising incidence of bankruptcy in the building industry of the Lansing, Mich., area are ample cause for concern. Although many of the unemployed may be fortunate to still obtain work in other professions, a lack of free choice often breeds discontent. Bankruptcy, indeed, is much more inclusive in its adverse effect on the economy of the area, since not only the building contractor, but all others associated with him in his endeavors, may suffer as well—including the suppliers and the potential homeowner.

Letters continued on p. 68



## Our Speedspace operations live up to their name

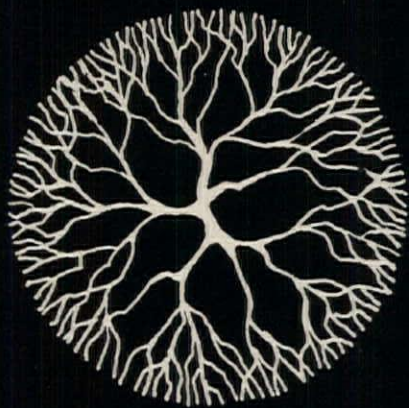
Speedspace, a Potlatch subsidiary, builds homes, apartments, motels, medical centers, nursing homes, schools and even banks. Precision manufactured to our own or other's designs in modern factories, they are delivered to the site by truck as com-

pleted modules, virtually ready for occupancy. Speedspace turns idle land into useful income-producing property far faster and more economically than conventional building methods. Except for height, no limitations are imposed on size, shape or

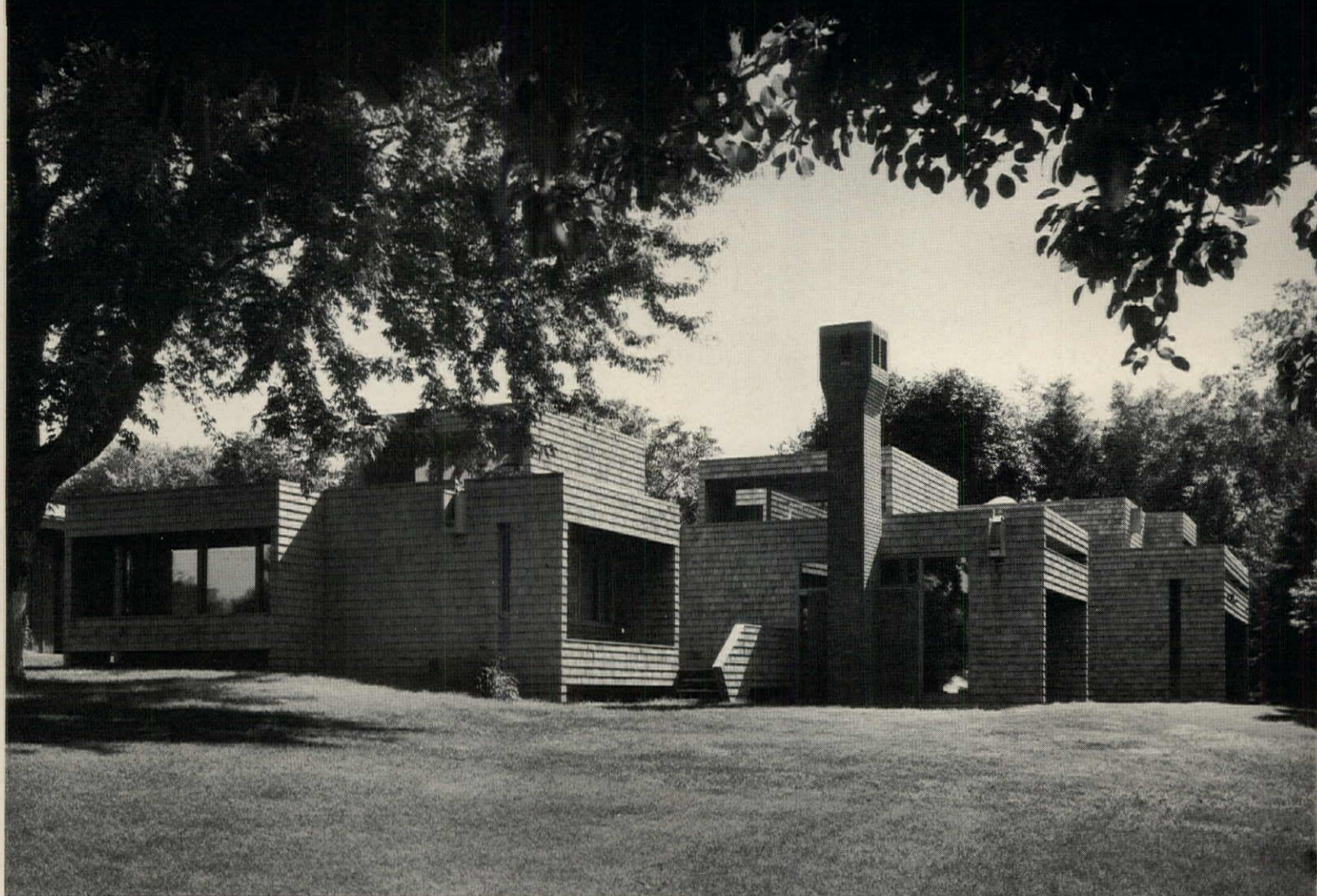
architecture. Speedspace offers builders, developers and investors a better answer to tomorrow's building problems, available today. Remember the name Speedspace. We mean what it says. Potlatch Forests, Inc., P.O. Box 3591, San Francisco, Calif. 94119.

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Red cedar shingles create a natural sight on a natural site.



*Certigrade Shingles, 16" — 5/2" Red Label grade. Architects: Parker Klein Associates.*

Everything just seems to fit. For example, mentally remove this Minneapolis home from its setting; or remove the setting from the home. Separated, each is diminished. Together, both are enhanced.

Red cedar shingles have a lot to do with it. Cedar's rich texture and inherent look of warmth are dramatically sympathetic with the wooded environment.

In addition, the use of a totally shingled exterior helps to unify and restrain the kinetic block forms that comprise the striking design. The result is a residence that appears solid but not stolid. Beautiful, but not blatant.

Red cedar shingles also create a naturally insulative barrier against weather extremes. They withstand even hurricane winds. And they

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## Red Cedar Shingle & Handsplit Shake Bureau

One of a series presented by members of the American Wood Council.

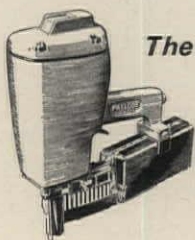


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same is true of the *Stallion*<sup>®</sup> power nailer. It'll drive 4,000 to 5,000 16d nails per hour, including reloading time. Great for framing of all kinds!

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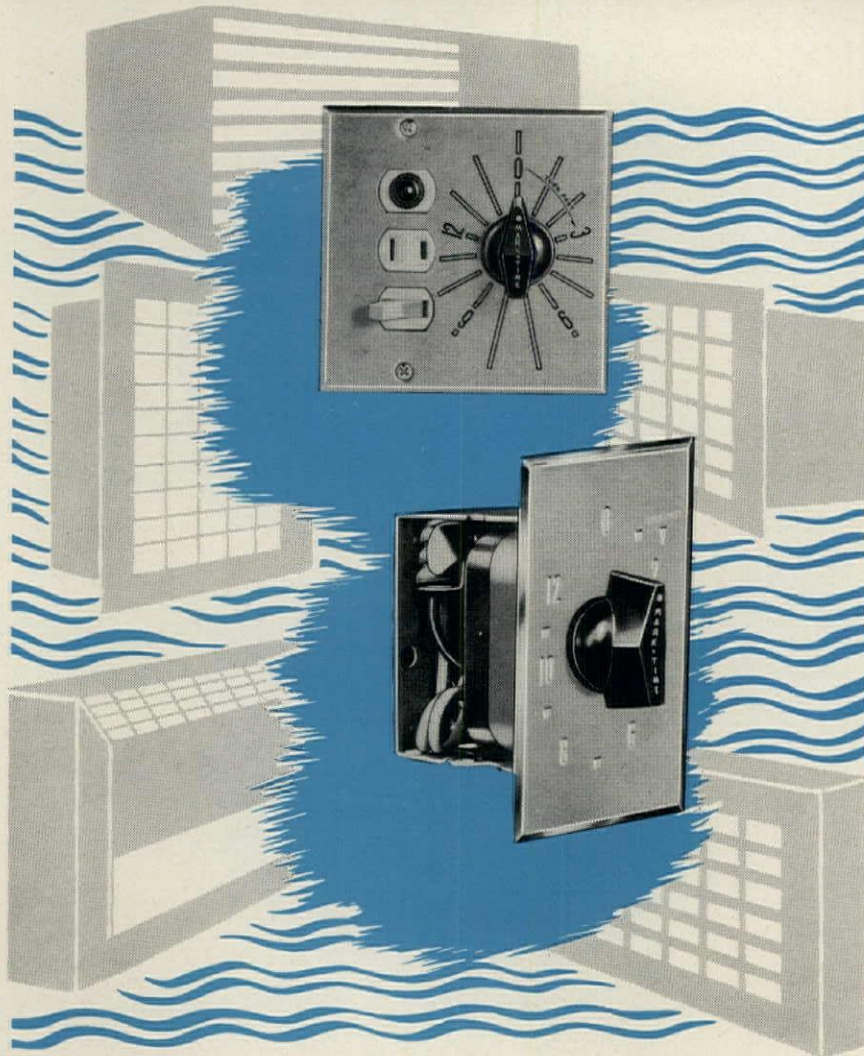
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### M. H. RHODES, Inc.

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In Canada—M. H. Rhodes (Canada) Ltd., Ottawa 5, Ontario

## LETTERS

continued from p. 64

I do not profess to have an acceptable solution for the nation's economic problems. However, the answer to Lansing's housing slump is not simply a matter of money being tight "... mainly to the builders with erratic and impersonal relationships with their bankers and mortgage lenders..." as stated in your article. Money is simply not available in any appreciable quantity to any builder—big or small—for the construction of new houses. The most successful builders are being pushed into the unsuccessful category by the money squeeze.

The dilemma confronts us at a time when the need from new housing is rapidly increasing. In recent years, Lansing has experienced a greater population growth than any other city in Michigan. This is being reflected in the large number of potential buyers with good credit and large down payments who want new houses built but are denied the mortgage money needed to fulfill their wishes. The demand is indeed strong in the Lansing area, but the capital barrier, or more appropriately, void, is an overpowering deterrent.

While the conclusions set forth in your article may be acceptable to the uninformed, they provide little consolation to those cognizant of the facts and directly affected by the housing slump.

D. D. BONDARENKO  
Bondy Builders  
Okems, Mich.

### Annual H&H indexes

Copies of House & Home's editorial indexes for 1965, 1966, 1967 and 1968 are still available. Each is an eight-page, cross-referenced listing of subjects covered that year by this magazine. To get copies (there's no charge) write to: Reader Service Dept., House & Home, 330 West 42nd St., New York, N.Y. 10036.

### Mortgage rate

H&H: George Romney seems to have the idea that all American housing needs is to put wheels under a house and push it around the country.

The financial consequences of the current action to increase the FHA mortgage rate from 7½% to 8½% will mean that mortgages this year will probably cost the buyer between 10% and 12% when one takes into consideration points and discounts tacked onto the sales process.

LEON RIMOV  
Leon Rimov and Associates  
Albany, Calif.

### Levitt interview

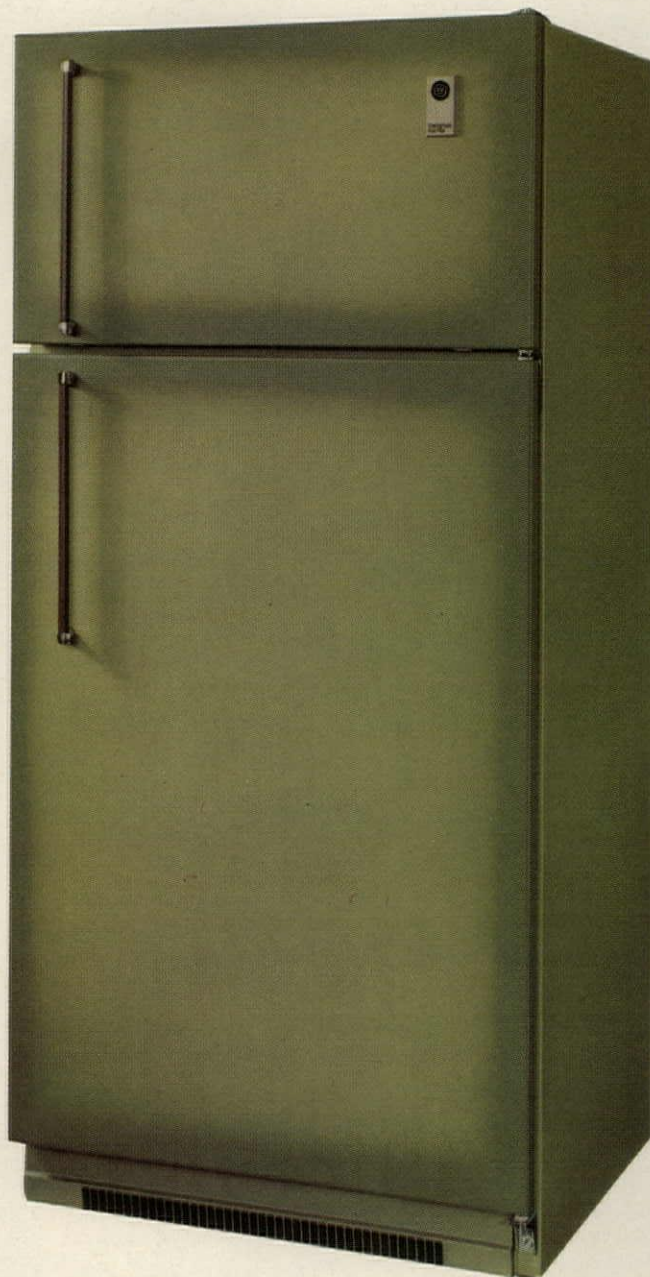
H&H: I thoroughly enjoyed your interview with Mr. [William] Levitt (H&H, Nov.) and wish to compliment him on the fine job he has done over the years and the leadership he has given to the industry. Sometimes we who are in the smaller communities and work with the smaller builders don't always understand the larger builders; I think this interview goes a long way towards such understanding.

CLARENCE A. THOMPSON, president  
Thompson Lumber Co.  
Champaign, Ill.

# There's more to like about a Westinghouse frost free refrigerator.

You'll like getting more refrigerator value for your money.


Your prospects will like the Frost Free convenience, and other special features.



"More" is the key word to this big, beautiful value. You get more refrigerator for your money. Your prospects get 14 cubic feet of Frost Free space. And any woman will smile at the thought of no more defrosting.

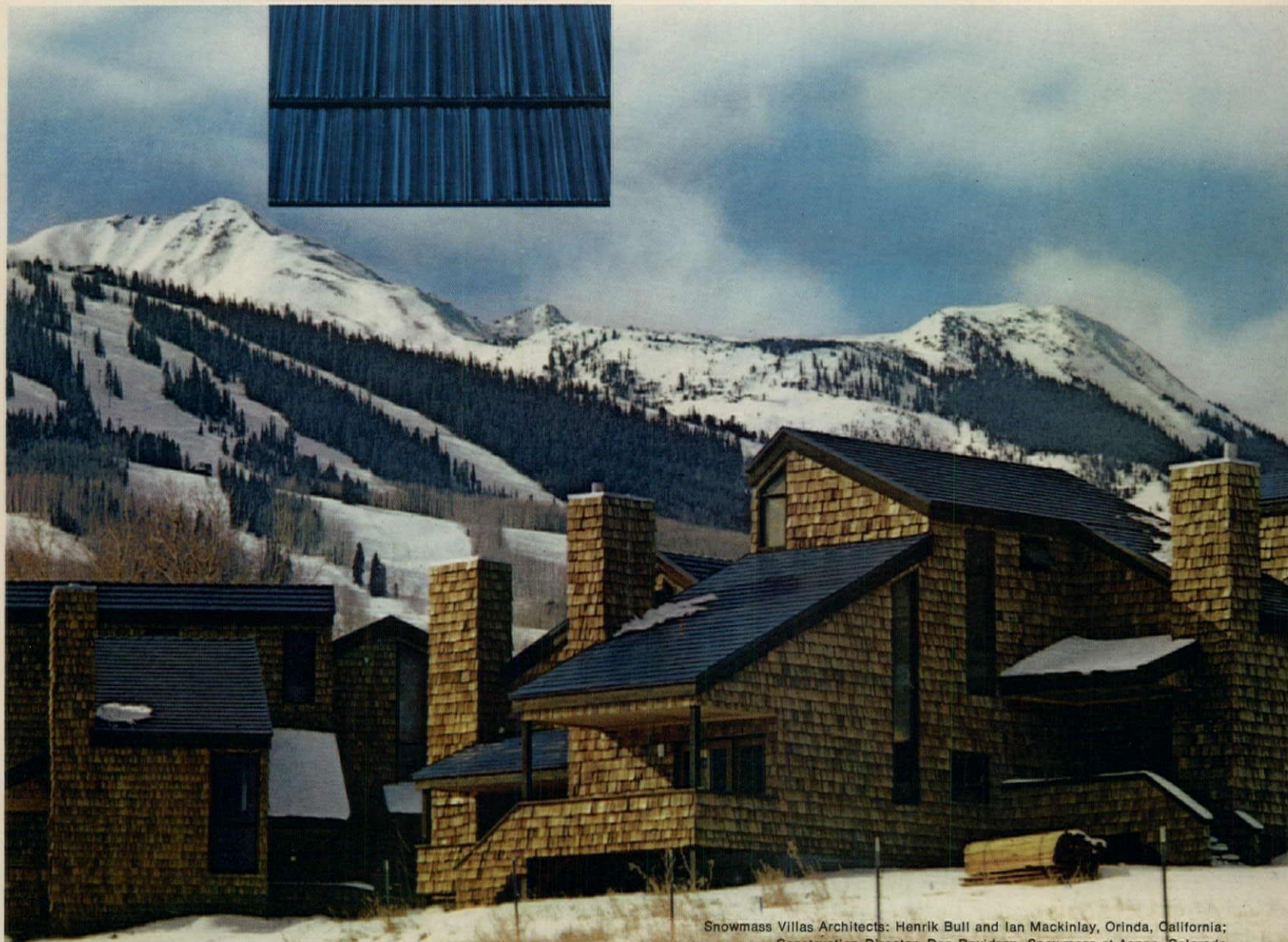
They'll get plenty of other popular features too. Such as separate temperature controls for a wide choice of temperatures in both the refrigerator and freezer sections. There's lots of well-planned shelf space, including a two-position, adjustable shelf and a freezer-door shelf. Plus there are useful compartments like a butter server, egg storage and big 1/2 bushel capacity vegetable crisper.

And to make it even more irresistible, the beautiful styling of Westinghouse refrigerators lends a decorator look to even the most modest kitchen interior. Available in avocado, coppertone, goldtone or white.

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Make one stop at Westinghouse, your specialist for a complete line of major appliances backed by Sure Service.

# The blue of Colorado skies meets its match in Reynolds Aluminum Shingle-Shakes®



Snowmass Villas Architects: Henrik Bull and Ian Mackinlay, Orinda, California;  
Construction Director, Don Davidson, Snowmass-at-Aspen, Colorado

People in the Aspen area refer to Snowmass Villas as, "that place with blue roofs," and with good reason.

This award-winning condominium project consists of 6 buildings, providing 28 residential units for year-round vacation use. Of conventional wood-frame construction, the apartment complex is sided with cedar shakes. In designing steep, shed-type roofs, the architects used Reynolds Aluminum Shingle-Shakes in Heron Blue Colorweld® as color counterpoint to the rough-hewn

siding. But, much more than color influenced that decision.

With their 4-way, interlocking design, Shingle-Shakes withstand winds up to 120 mph and remain stable even under heavy snow loads. The siliconized acrylic baked enamel finish actually helps shed snow. Regardless of humidity and temperature, Reynolds Aluminum will not rot, rust, warp or split.

Aluminum Shingle-Shakes are 12"x36", require no special framing or sheathing, and reduce the materials handling problem. Their

low load factor is a distinct benefit in covering old roofing in remodeling jobs, too.

Texture and shadow effects can be obtained with Shingle-Shakes thanks to their heavily embossed linear pattern and deep butt design. Most important, Shingle-Shakes offer visual appeal and durability comparable to slate or tile, but at lower cost.

Shingle-Shakes and their matching accessories come in 16 colors, including Polar White, Terrace Green, Heron Blue, Autumn Brown and Charcoal, plus

natural aluminum. Get information on Reynolds Aluminum Shingle-Shakes for residential or commercial buildings from Sweets Architectural Catalog, 21d/Rey, or write to Reynolds Metals Company, Building Products and Supply Division, 325 W. Touhy Avenue, Dept. HH-30, Park Ridge, Illinois 60068.



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## EDITORIAL

*Life at the bottom***Housing is still the least of President Nixon's concerns, but take cheer: you're in the forefront in fighting inflation (sic)**

Or so one would gather from the words of Messrs. Nixon and Romney last month. Their reasoning: if we cut housing expenditures to the bone, the federal government can stop feeding inflation through HUD, and there will be more money in the private sector for housing. Pretty neat, right?

Well it would be pretty neat if you could take it seriously. Trouble is that the prospect of coming out with a federal budget surplus on June 30, 1971, with the budget that the President released last month is just about zero. Take just one item: national defense is scheduled for \$73.5 billion (we're being attacked from all sides, right?). We all know that those military guys can come out of any given fiscal year with unplanned for overruns of around \$10 billion, give or take \$5 billion. And it's not always easy to switch funds from one program to another to balance the total.

So there is to be virtually no let-up in total federal expenditures, and the budgeted surplus of \$1.6 billion is darn near illusory.

Let us repeat something we pointed out on this page a few months ago. The only way to fight inflation, or to ease the money supply, is to cut spending in the private and/or the public sector. Raising taxes does not fight inflation unless it is accompanied by a reduced federal expenditure of discernible size. The current budget does not do this, and to say cutting housing's allotment to the bone will make more money available in the private sector is pure tommyrot. Under the Administration's plans for fiscal 1971, the only way credit will ease is if capital expenditures and profits in the private sector fall apart in a major recession. That assumes all other things will stay as they are right now.

The chances of capital expenditures and profits in the private sector falling apart are very slim indeed, and for a very good reason. We are

now an economy in which well over half the labor force is employed in service industries, not capital goods industries. You can store and inventory capital goods so that you can shut down plants and wait until the public is buying again. (That's a recession.) You can't store services: they're needed all the time. That explains why employment levels are still so high, why the cost of living and the consumer price index keeps rising . . . in spite of the fact that the last two quarters have seen the Gross National Product make no gains. The experts tell us that when the GNP stands still or drops for two quarters in a row, we're in a recession. The automobile industry, for one, would say that we sure are. But the nation, as a bunch of individuals and corporations all with credit demands, is still in inflation and likely to remain so for some little time.

So what can we do about it? We can get usury laws removed (see HOUSE & HOME, January). We can pray that Arthur Burns will not soften Regulation Q any more, even though he probably will. And we can all get behind legislation that Congressman Dick Hanna (D., Calif.) has introduced which would exempt dividends from savings accounts from income tax (under certain limits and if the savings went into mortgages).

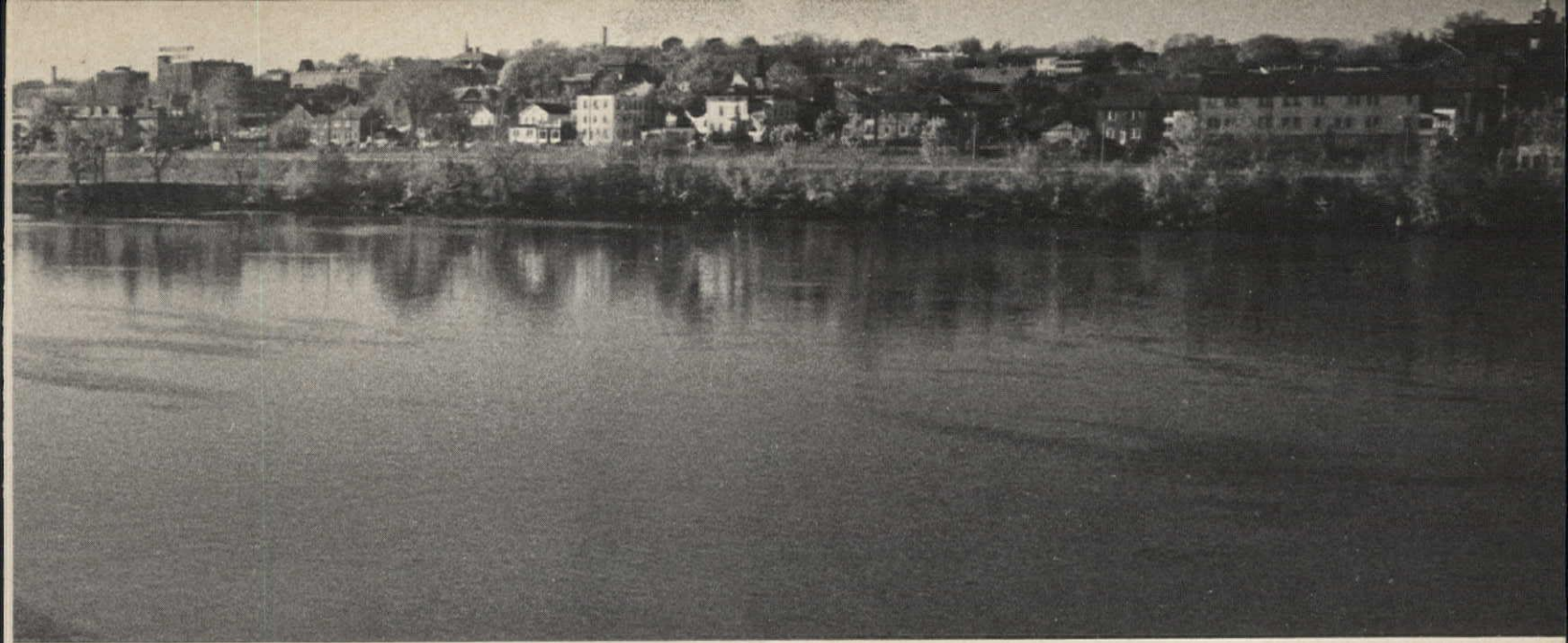
Apart from the obvious help this would give housing, there's a very broad rationale for such a measure. The small saver in this country gets almost no tax breaks at all. And he can't go for the big interest rates. You need at least \$1,000 to buy a Treasury note yielding 8%; you need at least \$100,000 to buy a 7½% certificate of deposit; and very few bond men will deal with you in tax-exempt municipals (yielding around 6%) unless you're already rich.

It's about time the small saver got a break, a break that will help get everyone into more adequate housing. —RICHARD W. O'NEILL



***This is Middletown, Conn., pop. 35,000. A homebuilding backwater four years ago, today***





**it's a solid market for all types of housing. And there are Middletowns all over America.**

## **Small cities: will they be the next big market for homebuilding?**

Pinpointing any kind of a boom today may seem like a silly exercise; the housing shortage is growing so fast that the first easing of money should see booms everywhere. But small cities merit special attention. A housing resurgence may well see them get a disproportionately high share of new units. And even during the present bind, many small cities offer untapped market possibilities.

Consider Middletown. Up until 1968, a quiet 100 or so new housing units were built annually in the city—most of them single-family houses. But in 1968 and 1969 that figure jumped to 700 (600 of them apartments). And despite the money pinch, 1970 promises to be almost as good.

Why this jump? There are, of course, specific local reasons. But there are also general reasons shared by nearly all small cities.

Big cities became big because they were major ports or railheads; having attained pre-eminence, they continued to attract growth. Small cities usually came into being as minor ports or centers for rural areas; if they then attracted one or more major industries, they became cities rather than towns. But there was nothing to attract major growth.

This picture has changed. There has been an astonishing growth of light industry which depends on trucks rather than ships or rails, and most small cities are close to a major su-

perhighway (Interstate 91 runs through Middletown). Many small cities house colleges or universities (Middletown has Wesleyan University) which are expanding enormously. And perhaps most important, the sprawls and problems of the big cities have reached the point where small cities are suddenly infinitely more desirable.

The inevitable result is growth, and with growth comes opportunity for homebuilders. While in the suburbs the opportunity is mostly residential, in the cities there is a much greater range.

In Middletown, the range of opportunity is best exemplified by Hill Development Corp., a company started in 1966 by Wesleyan University. Hill has built or is building 1) a 300-acre, 1,100-unit PUD, 2) almost 100 federally subsidized low-cost units, 3) luxury apartments and condominiums, and 4) an inn and a medical office building.

It must be pointed out that Hill Development has enjoyed some special benefits thanks to its relationship with Wesleyan, and to an unusually well-qualified management team (*photo, left*).

Nevertheless, most of what Hill is doing in Middletown—especially the way the company has woven itself into the fabric of the city—is valid for other builders and developers in other small cities.

And that's the subject of the next six pages.

Photos: Rudolph Vetter



**HILL DEVELOPMENT EXECUTIVES** are (l. to r.): Robert L. Williams, vice pres., former exec. dir. of the American Institute of Planners; Chester A. Tibbetts, vice pres., formerly in real estate and land management; James E. Lash, pres., former exec. vice pres. of the ACTION Council for Better Cities; and George D. Edwards, asst. to the pres., former town manager.

*continued*

## There's opportunity in good subdivisions

The project at right, called Wesleyan Hills, is a 288-acre PUD which, when Hill Development completes it in roughly six years, will contain 1,100 single-family homes, garden apartments, townhouses, empty-nester condominiums, and a variety of community areas and buildings. All except the custom houses are clustered, and nearly one third of the project is left open, with 60 acres as woods and fields.

That such a sophisticated project should be taking shape in what has up to now been a distinctly unsophisticated housing market, is at the same time a logical consequence and a stroke of good fortune.

The logical aspect grows out of the situation of the typical small city. Politically, they tend to be less hide-bound than small towns, which have a history of fighting planning innovations, and more concerned than big suburban markets, which have had so much mediocre development that both local government and residents are numb. And physically, the small city is usually blessed with more open land closer in than the big suburban market. This helps the whole range of PUD residents, from high-income custom buyers (who can get their big lots without a half-hour's drive out of town), to lower-income apartment dwellers (who can be close enough in to use inexpensive public transportation).

The good fortune stems from a number of factors relating to Hill Development's unusual status. Specifically:

The land under Wesleyan Hills had been owned by the university as possible campus expansion area. The company thus was able to buy a site minutes out of town, and only a short bicycle ride from the university.

James Lash, president of Hill Development, was a friend of Emil Hanslin of Emil Hanslin Associates, who turned New Seabury on Cape Cod into one of the best-planned recreation projects in the country. Lash engaged Hanslin, Hanslin assembled a planning and landscaping team which also included a housing economist and a sociologist, and the result was Wesleyan Hills.

Finally, there was a good understanding between the developer and local officials. Edwin D. Etherington,\* as president of Wesleyan University, is also chairman of the board of Hill Development and thus in a position sensitive to both sides.

"We worked very closely with local officials," says Etherington, "and incorporated a lot of their suggestions. So it's really a joint project."

And says Edward F. Button, chairman of a commission which wrote a new PUD ordinance for Middletown: "Zoning must grow with the times. And the mixed uses of a PUD are ideal for the varying needs of a city like ours."

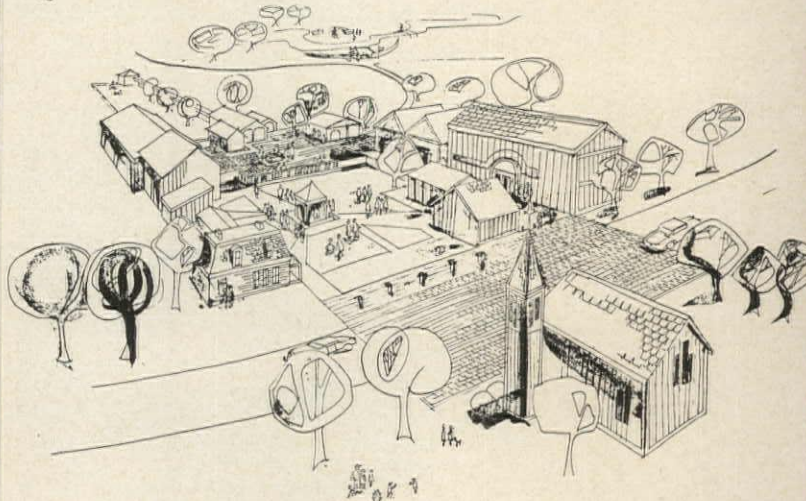
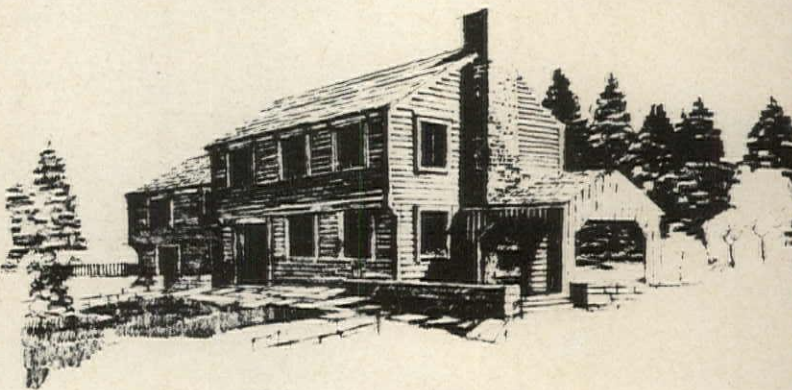
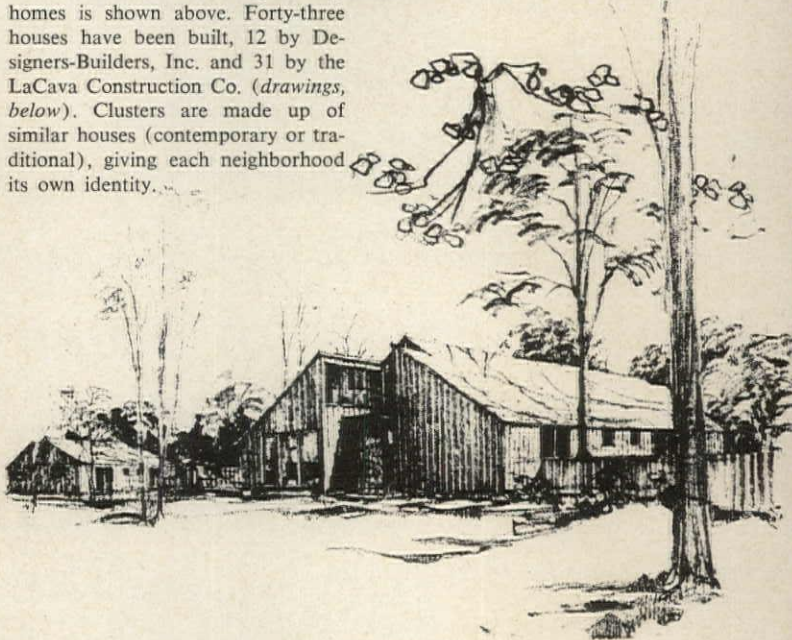
Ground was broken for Wesleyan Hills in August 1968, and the first models to go on the market were clustered single-family models priced from \$26,900 to \$39,500 (right). Designs are by Claude Miquelle and Richard B. McCurdy. Next to be built will be the empty-nester condominiums, designed by Louis Sauer.

\* On February 7, as HOUSE & HOME was going to press, Etherington announced plans to run for the U.S. Senate from Connecticut and his resignation as president of Wesleyan University.



William F. Stekl

**TYPICAL CLUSTER** of single-family homes is shown above. Forty-three houses have been built, 12 by Designers-Builders, Inc. and 31 by the LaCava Construction Co. (drawings, below). Clusters are made up of similar houses (contemporary or traditional), giving each neighborhood its own identity.



**COMMUNITY CENTER** (above) is a mixture of remodeled barns and new buildings. Area will have shops, church, school, and meeting room/community theater.

**LAND PLAN** (right) shows how 90 acres of open land (in green) has been distributed. Area at bottom center is 10-acre woods. Five ponds have been built.



SWIM & TENNIS CLUB

SCHOOL

APARTMENTS

TOWNHOUSES

SINGLE FAMILY CUSTOM

EMPTY-NESTER  
CONDOMINIUMS

SINGLE FAMILY  
DETACHED

COMMUNITY  
CENTER

ELEMENTARY  
SCHOOL

COMMUNITY DEVELOPMENT PLAN

GARDEN  
APARTMENTS

NORTH

EMIL HANBIN ASSOCIATES

TOWNHOUSES

MIXED SINGLE FAMILY HOUSING

continued

## There's opportunity in low-income housing

The expected boom in small-city housing will be due in large part to an increasing disenchantment with life in large cities and their environs. But paradoxically, the small city shares the same problems as its big brothers; the difference is one of degree.

"Middletown," says James Lash, "is a microcosm of all cities and all city problems." But while Middletown does have its ghetto area, the black population is only 8%—proportionately far smaller than in most large cities and therefore easier to house.

Another point: while Middletown is obviously too big to treat low-income housing with the snob-zoning tactics of many small towns, it is nevertheless small enough to have a community conscience. And while Middletown's low-income-housing programs are all less than a year old, there is every sign that they will continue and grow.

Hill Development has been involved in the city's current effort to provide low-income housing. Two projects are:

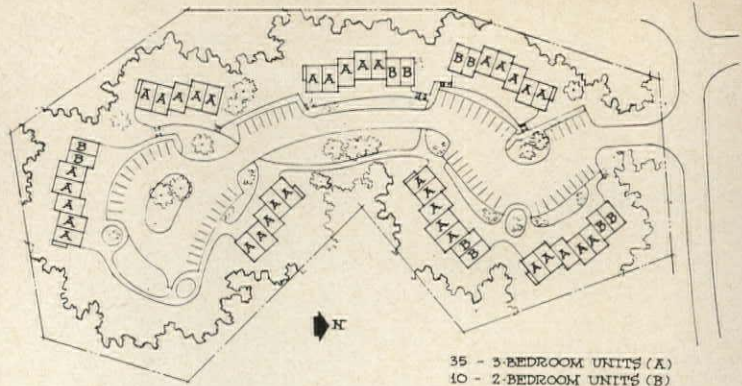
Wadsworth Grove (*top of facing page*), a 45-unit 221d3 cooperative. Hill Development packaged Wadsworth Grove for the Greater Middletown Community Corporation, a nonprofit housing group of some 60 local community leaders. Wadsworth Grove includes two- and three-bedroom townhouses that can be bought for either \$500 or \$600 down, with payments of \$115 or \$125 a month. And while most 221d3 projects are necessarily rentals (the down payment is usually impossible for low-income families), Wadsworth Grove had a

sizeable waiting list of buyers even before ground was broken. And GMCC is looking for more project sites.

Total cost of the project was \$925,000, a figure which does not include land. The site was donated by the local Catholic Archdiocese, one of whose leaders, Msgr. Edward J. McKenna, is president of GMCC. The project's cost would have been even less had not GMCC convinced local FHA officials that cedar shingles and redwood siding would pay off in the long run because they would not increase maintenance costs, and should therefore be included in the mortgage.

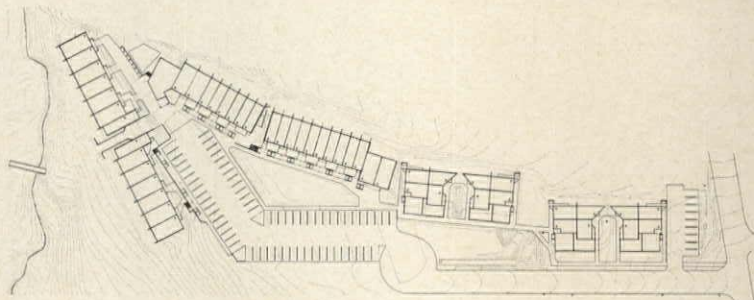
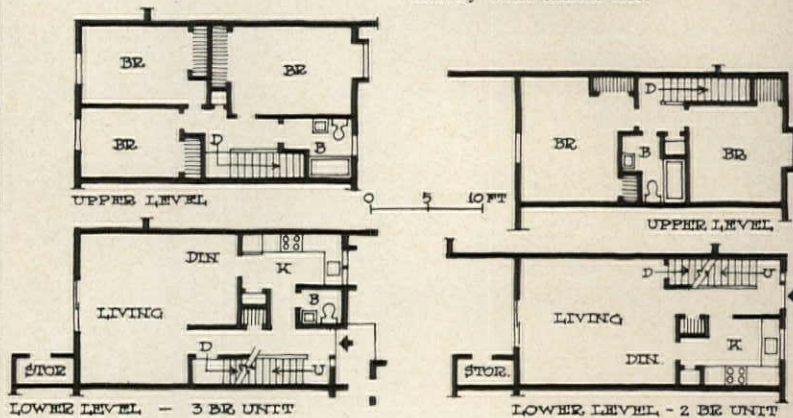
McHugh & Associates was the architect for Wadsworth Grove.

Maplewood Terrace is a 50-unit turnkey project (*bottom of facing page*) built for the Public Housing Authority. In this case GMCC is the developer, with Hill Development assisting in packaging units. The project will include units that rent from \$70 to \$85, and range from quadrplexes (*facing page*) to townhouses with from three to six bedrooms (a four-bedroom unit is shown at right). Construction is scheduled to start this Spring. Moore-Turnbull is the architect.

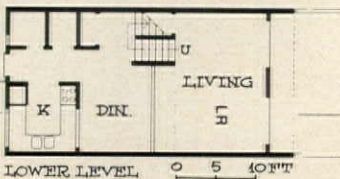
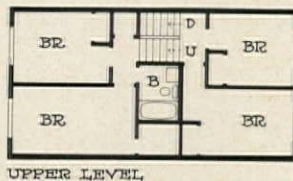
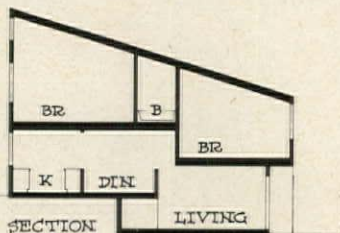


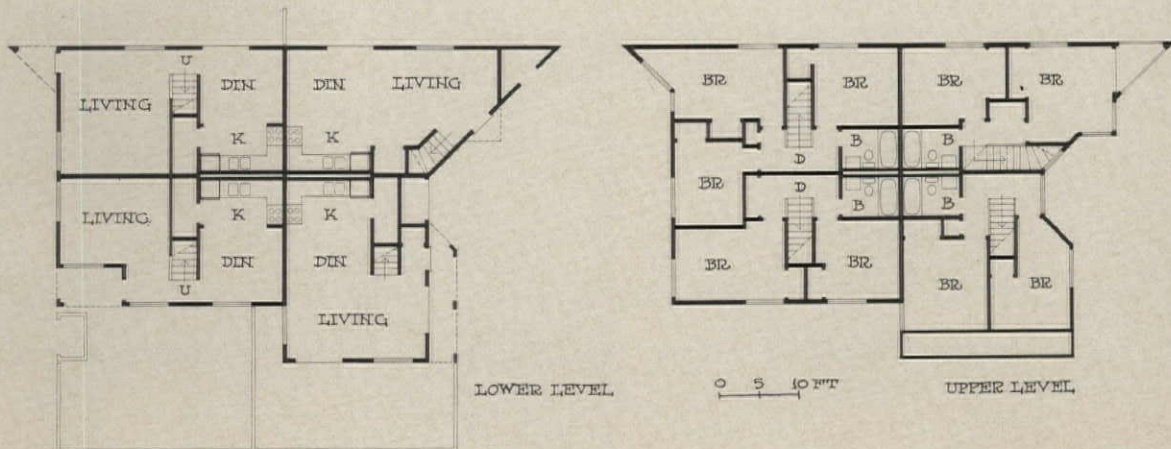
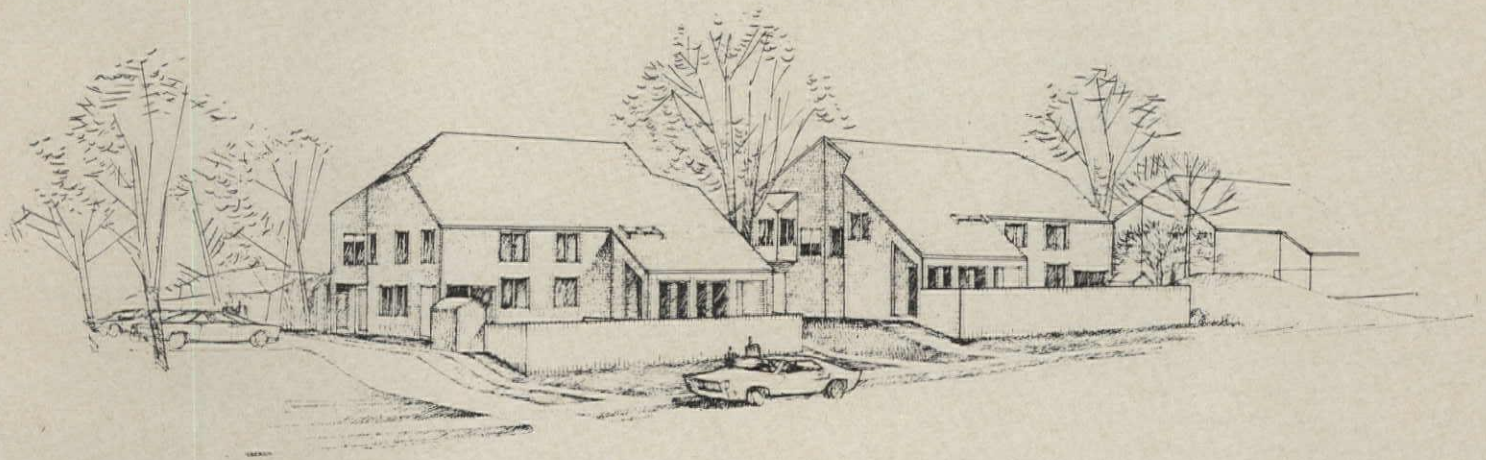
35 - 3-BEDROOM UNITS (A)  
10 - 2-BEDROOM UNITS (B)

**221d3 PROJECT** consists of 45 two- and three-bedroom units in seven buildings. Land plan (*above*) shows how units are staggered within buildings and placed on the site to avoid cookie-cutter look. Redwood exteriors and wood-shingle roofs were allowed by FHA because they are relatively maintenance-free.



**TURNKEY PROJECT** has 50 units ranging from three- to six-bedroom townhouses to quadrplexes, (*right*) an unusual design for government housing. Typical townhouse (*left*) has a split-level layout. It puts living room and kitchen at opposite ends, allowing supervised play for children in front or rear.





## There's opportunity in in-city projects

And in a growing small city, that opportunity can embrace a wide variety of residential and commercial projects, and a number of different ways of getting involved in them. In Middletown, Hill Development is either building or planning the following:

**Condominium townhouses.** There are 27 units in a project called Intown Houses (*drawings, right*), scheduled for completion this summer. The project is located just two blocks from the university campus and is keyed to university needs. Some of the houses are intended for faculty members, and it's possible that the project may eventually become the core of a much larger faculty housing complex. The university itself has bought five of the units as places to house distinguished guests.

The project will include six two-bedroom units with 1,600-sq.-ft. of area, and 21 three-bedroom units with 1,850-sq.-ft. Prices are from \$35,000 to \$37,000. The houses are of wood construction and finish and distinctly contemporary in design. (Middletown has shown a market preference for contemporary design—possibly a reflection of the tastes of the university. Even at Wesleyan Hills, contemporary-styled houses are outselling traditional styles.)

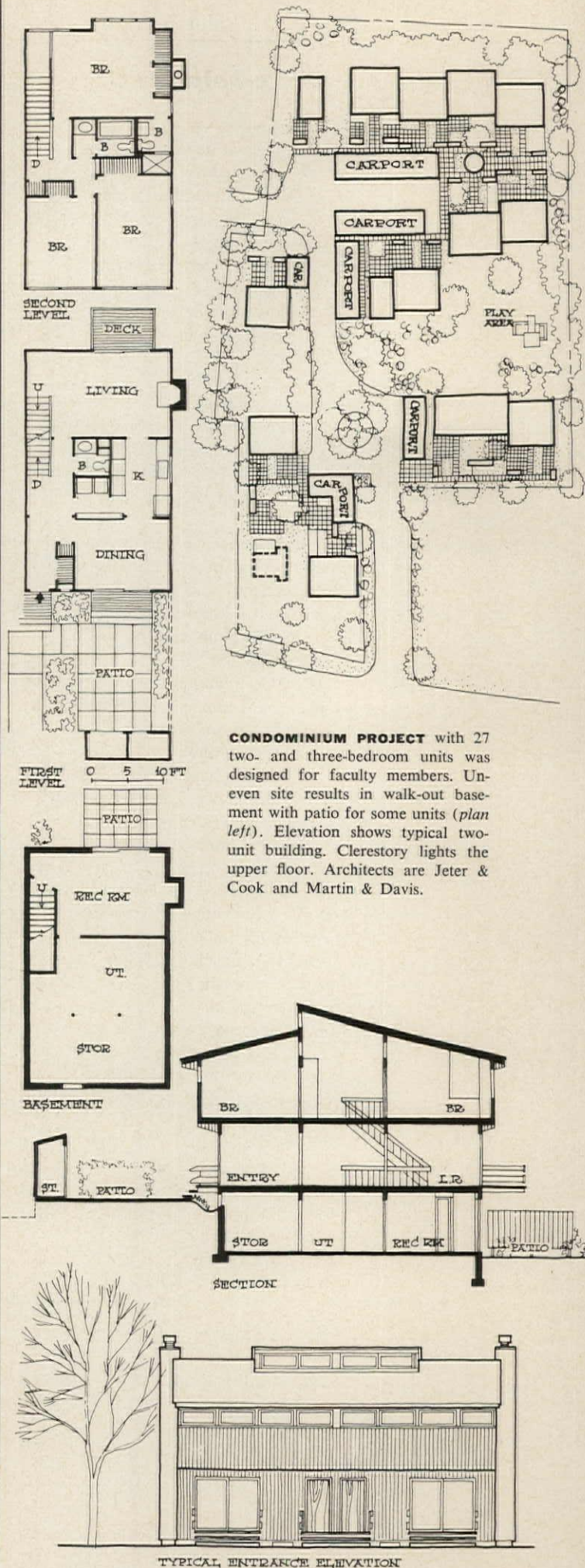
**Apartments.** The need for higher-priced rentals in a university area is obvious. Hill will buy a piece of land from Wesleyan (it is near the campus) and build apartments that will rent at from \$250 to \$300. Plans are still incomplete; a high-rise was first envisioned, but garden units now seem likely.

**An inn.** This is a project in which Wesleyan has a strong interest. The 100-room inn would be a place for visitors to the university to stay, and also a facility for conferences. Present plans call for the inn to be located in a 125-acre urban renewal area (*see box on facing page*) in the center of Middletown, and it will probably be the first new construction in the area. Hill Development is acting as lead developer, and will probably share ownership of the inn with other local business interests, which it will also serve.

**Medical office building.** This will be built on a site next to the present hospital. Hill Development will finance and construct the building for the hospital, then Hill (as general partner) and a group of doctors (as limited partners) will buy the building from the hospital. Reason for the complicated arrangement: building on urban renewal land requires an initial nonprofit principal, which the hospital is and Hill is not.

One important advantage of the location of the medical office building is that much technical and laboratory equipment can be shared with the hospital.

Total development cost is expected to be around \$1,175,000.



**CONDOMINIUM PROJECT** with 27 two- and three-bedroom units was designed for faculty members. Uneven site results in walk-out basement with patio for some units (*plan left*). Elevation shows typical two-unit building. Clerestory lights the upper floor. Architects are Jeter & Cook and Martin & Davis.



## There are opportunities to help the city

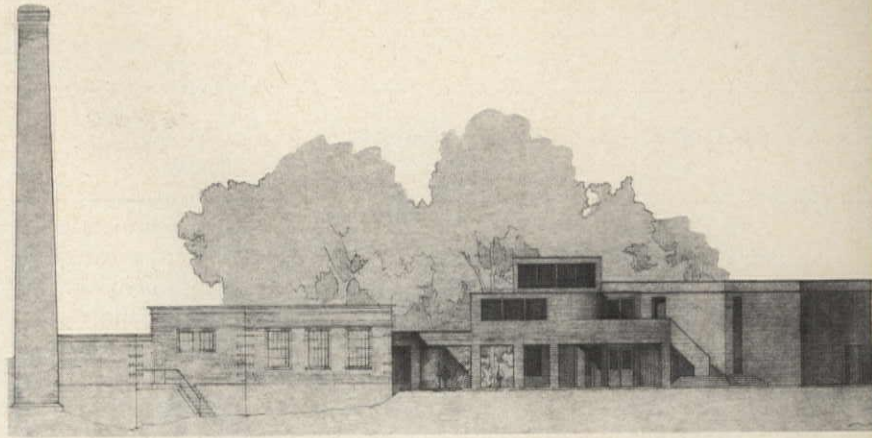
And when a developer is as deeply engaged in the city as Hill Development is in Middletown, it is very important that these advantages be seized. They mark him as a responsible and contributing member of the community, and help dispell the doubts and ill feeling that, like it or not, still cling to home-building.

Besides involving itself in projects which are important to the town, like the inn and medical center, Hill Development has established two major programs:

1. A design program has been worked out which brings students from Yale University's architectural school into the town to help on various projects. So far the proposed projects have included a teenage club, a new zoo, planning and design recommendations for Middlesex Community College, a park for the city's north end, and a community center (top of facing page). Both the teenage club and community center have been built.

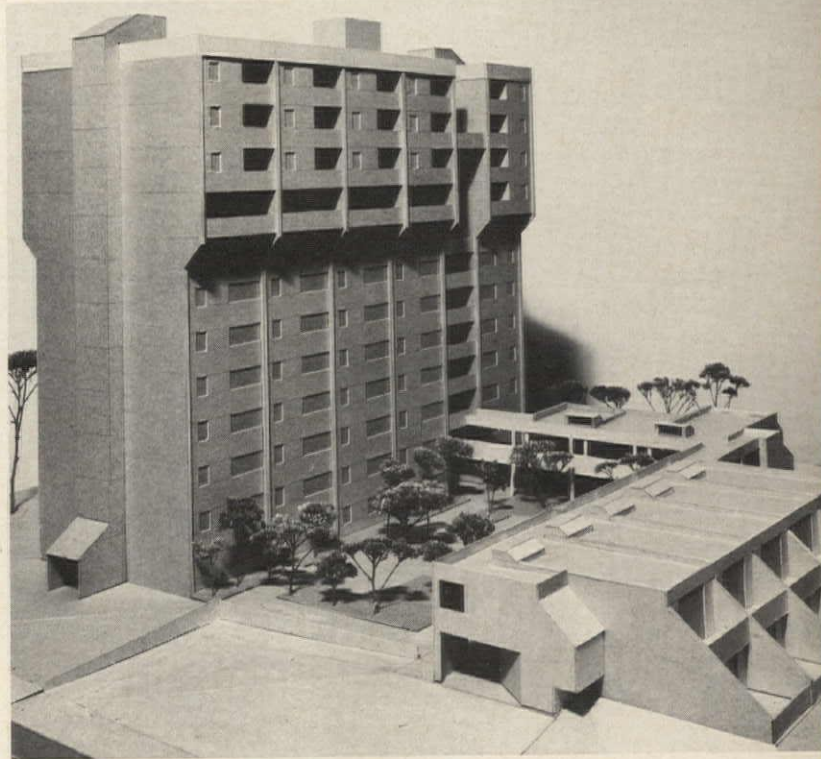
2. A sensitivity training program whose purpose is to improve communications between various groups in the city. So far, 19 workshops have been held between blacks and whites, young and old, and police and civilians. This program is now being carried on by the Middletown Future Committee with financial aid from the State.

"True community development," says James Lash, "demands the development also of improved human relations. We see this program as part of Hill's total commitment to Middletown."



**COMMUNITY CENTER** was design project of Yale students. Building contains recreation room, library, meeting room, and kitchen. Much of

it was actually built by eight students (including girls) and seven teenagers in the public housing area it serves. A fieldhouse will be next.



### How has Middletown reacted to Hill Development?

Says Irwin M. Kaplan, community development director of the city's Redevelopment Agency:

"Hill has played a real role as a catalyst in Middletown. In particular, the company has offered leadership in good design. And others are following their lead."

For example:

The city held an architectural competition for a public housing facility for the elderly. Hill entered two designs by Moore-Turnbull. However, the jury selected a design (above) by Gilbert Switzer (proving among other things that Hill and Wesleyan don't automatically get their way in Middletown.)

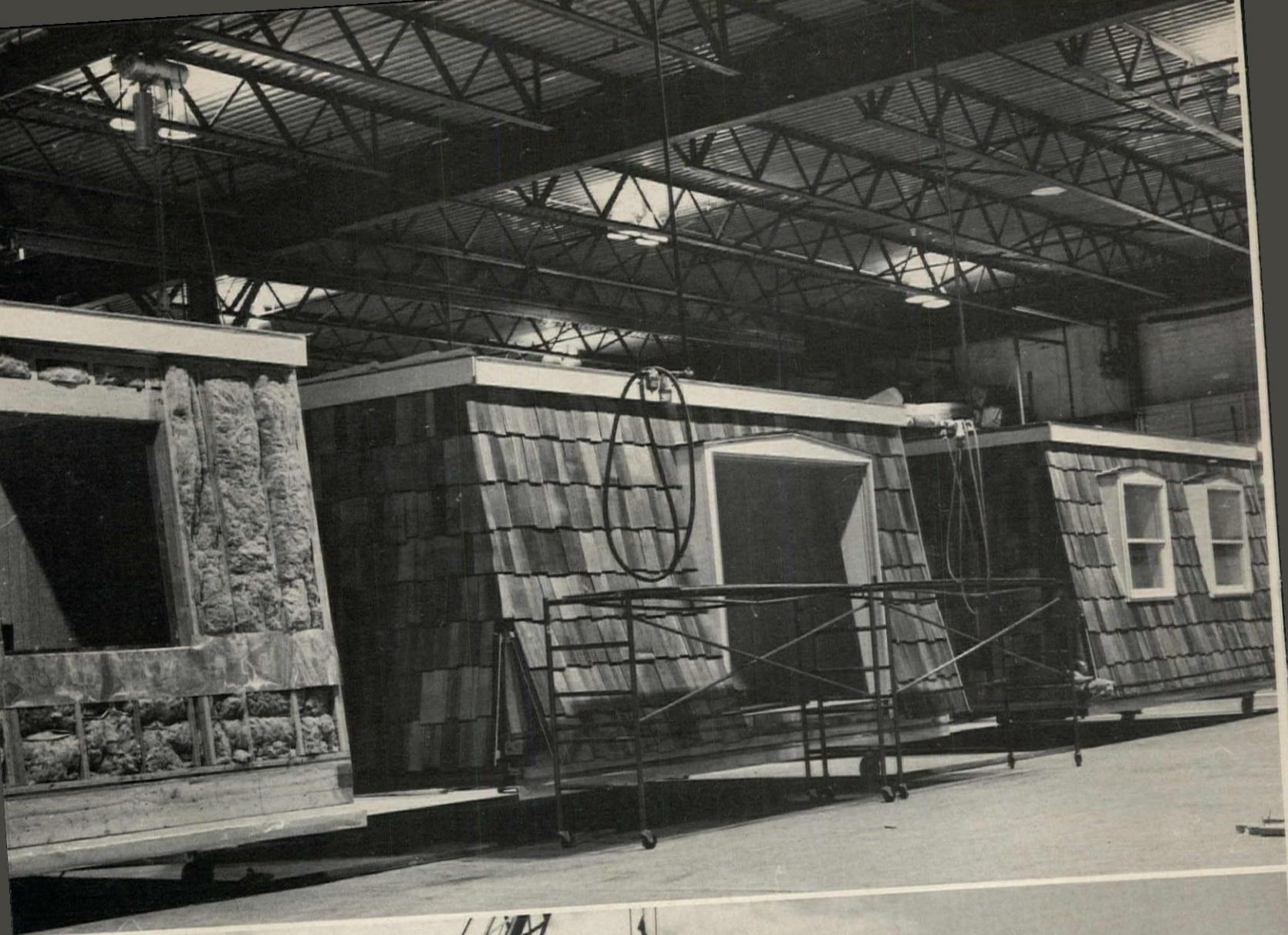
"Hill's presence established the high level of design in the competition, even though they didn't win," says Sam H. Newcomer, executive

director of the Public Housing Authority.

Another example: Hill has helped the Chamber of Commerce with a downtown revitalization program, and the Redevelopment Agency with a 125-acre, \$16-million urban-renewal program, both in the center of Middletown. Hill is providing manpower and market studies for both programs.

Says Philip T. DeRing, executive vice president of the Chamber of Commerce: "Hill's motives are in their own interest, but also are altruistic. They have gone further than was necessary to help us with studies and offer their extensive insight into city problems.

"If it wasn't for Hill, this community wouldn't be on the verge of exploding into great growth."



*Ready or not, this is the decade when housing moves onto the assembly lines  
Every builder and developer should be taking . . . .*

## **A realistic look at modular housing— the boom-child of the '70s**

For the past year or two, nothing has been talked about more or understood less than modular housing. Depending on who you listen to, modulares will either take over all housing by the middle '70s, or fade away completely; they'll save great gobs of money, or cost much more than conventional construction; they can produce the best quality housing we've ever had, or they're nothing more than glorified mobile homes.

Add to the confusion the facts that 1) Operation Breakthrough has brought dozens of embryo modular systems into the field (H&H, Feb.), some of them promising and some utterly wild-eyed, and 2) only a handful of companies is actually producing modulares and they haven't been doing it for very long at that, and you have a situation where facts are rare indeed.

To try to pin down some of these facts, HOUSE & HOME talked to Modular Housing Systems Inc. of Northumberland, Pa., a company that has been making the units shown at left since last November, and is now turning out townhouses and apartments at a rate of about two a day, and also to two builders who are buying and erecting these units. Out of these conversations emerges a picture that can give both builders and potential manufacturers a preliminary but sound basis for judging just how modulares can fit in their future.

Here is a broad look at some of that picture's more important aspects:

**Housing types:** Modular Housing Systems is currently concentrating on two-story townhouses and garden apartments, offering five designs in each type. This may not seem a particularly broad line, but it's probably typical of what most modular manufacturers will offer, at least in the early stages.

"Ours is a production-line operation,"

says Joe Grasso, vice president of MHS, "and it absolutely requires standardization. Also, producing a prototype model takes 400 or so man-hours of engineering time and can cost up to \$50,000. So we obviously can't bring out new models every couple of weeks. We have to specialize to a considerable degree; otherwise we'd lose the economic advantages of factory building."

The need for standardization means that most modular manufacturers will probably concentrate on multifamily housing, whose repetitive nature makes maximum use of standardized units.

**Design variety:** Like housing types, design is also restricted by the demands of standardization. Modular Housing Systems is currently offering the styles pictured at left: mansard roof with cedar shakes on the upper units, and either vertical board-and-batten siding or brick veneer (the builder must apply this) on the ground-floor units. Other sidings can be had if the order is large enough to permit volume purchasing—at least 40 to 50 units. And other styles (within the limits of the modular system) are also available, but only if the order is big enough—generally at least 100 units—to justify the necessary engineering and changeover of the assembly lines.

**Cost:** MHS charges between \$10 and \$12 a sq. ft. for its units, in place on the builder's foundation and completely finished and equipped. The variables are unit size (smaller units cost more per sq. ft.) and transportation costs.

*Generally speaking, this puts the modular's cost somewhere between the cost of conventional housing produced by the smallish builder and the volume builder.*

"If a builder is doing around 40 or 50

units," says Grasso, "he will probably be much better off with modulares. On the other hand, a big operator doing several hundred units or more can usually beat our price."

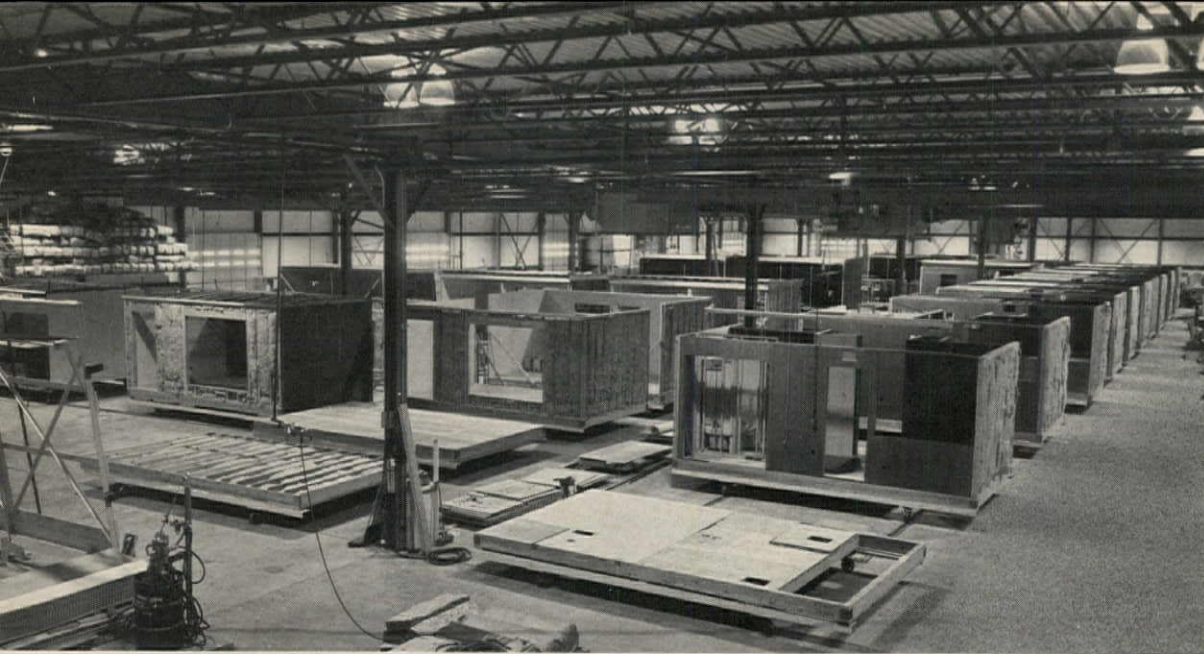
**Quality:** As with any other kind of housing, quality in modulares can range from excellent to terrible, depending on the manufacturer. One builder using MHS units says he shopped several modular manufacturers and found that "not only was Modular Systems the best of what I saw, it was better than most conventional construction I've seen in its price range." So there's no inherent reason for a builder to fear that by building modulares, he's ipso facto building cheap housing.

There's a widespread feeling today that almost anyone can set up a small plant and start turning out modulares; it seems that every third builder you talk to is planning to do just that.

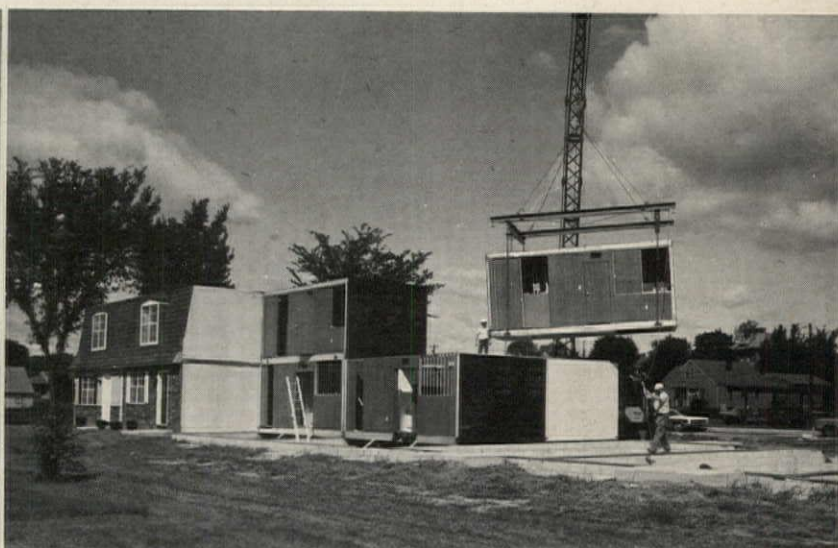
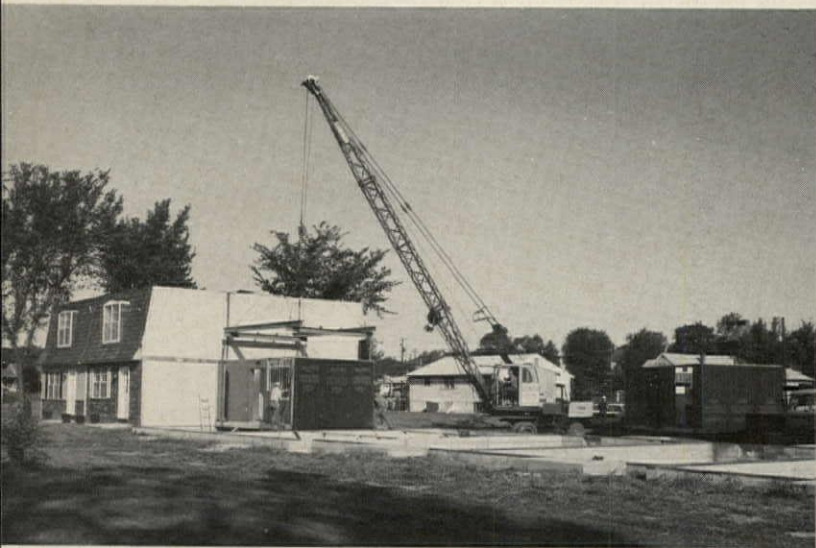
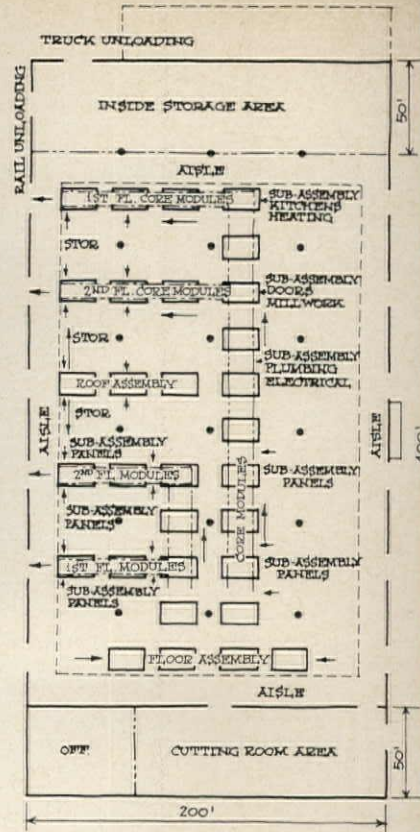
But Modular Housing Systems' operation should give rise to second thoughts. It requires a major plant—90,000 sq. ft. of space. It requires a lot of personnel—400 men to turn out about 40 modules a day (roughly eight units) on two shifts, an output that should be reached by June or July. And reaching this stage requires money—more than \$2 million in the case of MHS.

Such an operation, however, can produce rewards. At its presently planned rates of production, MHS is sold out for the remainder of the year, and the company is now preparing to build a second plant as big as the first. What's more, investors think enough of the company (it went public in November with a \$2½-million issue) to have bid the stock up to more than triple its original price.

*continued*



**PRODUCTION LINES** are shown in Modular Housing System's plant (above) and flow diagram (right). With a work force of about 180 men, MHS is now turning out 12 modules a day—or from two to four living units, depending on size. By June, 400 men on two shifts will produce 40 modules a day.



## Construction: a small-module system that goes up at a four-a-day clip

The spectacular part of the operation is shown in the sequence photos immediately above: four 1,400-sq.-ft. townhouses of six modules each being dropped on their foundations with a large mobile crane.

But it's what goes on before and after these theatrics that is of greatest interest to the prospective builder of moduls. And while Modular Housing Systems' package is not necessarily typical, it does indicate the kind of package—and service—the builder can expect from a responsible manufacturer.

The modules, (shown at the top of this page being built in the factory) are a nominal 12-ft. wide (for over-the-road travel), have 8-ft. ceilings, and vary in length from 18 ft. to 32 ft. Roofs are flat, although swing-outs are planned for the future to provide steep pitches.

MHS's way of assembling its modules differs from other systems in that the modules go from side to side (*drawing, facing page*) rather than the usual front to back. This gives more design flexibility and also allows all utility areas to be concentrated in one module on each floor.

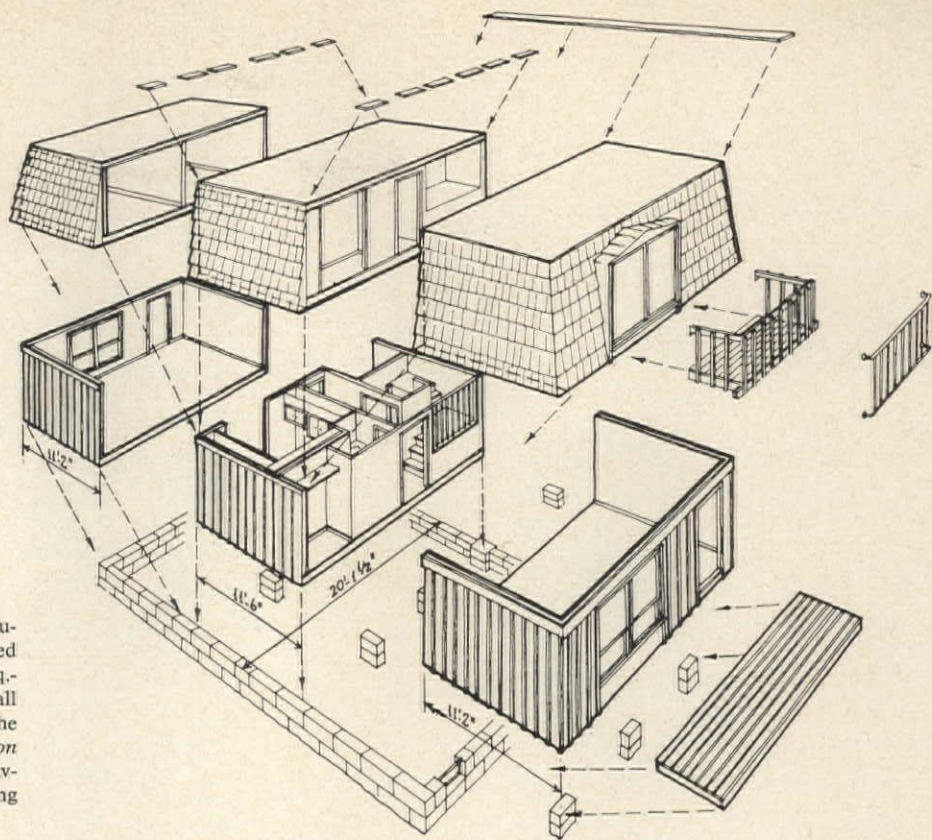
Transportation is via trailer, and Modular Housing's price includes free transportation up to 100 miles from the plant. Beyond that the charge is \$1 per trailer per mile; since a trailer carries two modules,

the charge works out at from \$1 to \$3 per mile per living unit, depending on the unit's size (*see p. 84*).

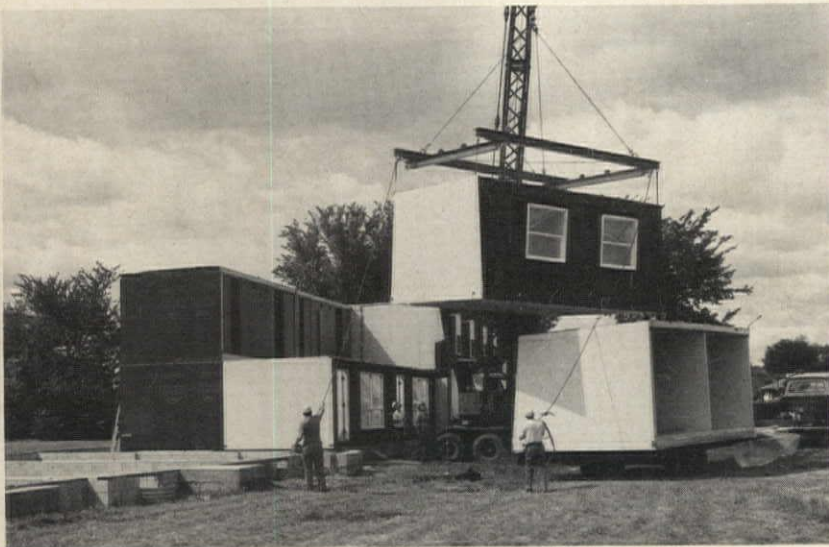
Delivery by trailer (made practical by the smaller modules of the side-to-side systems) has an advantage over the other usual method—putting wheels under the modules and hauling them like a mobile home. The latter requires heavy stiffening of the floor structure, and consequently raises costs.

Erection is provided by MHS and is included in the basic price. With one crane, MHS crews can set about 24 modules (or four townhouses like those shown above) in place in a day. And to make sure this goes quickly and accurately, MHS engineers supervise the building of foundations.

Finishing time for the 24 modules that a



**SIDE-TO-SIDE SYSTEM** of modular design is shown in this exploded view of a three-bedroom, 1,400-sq-ft townhouse. Baths, kitchen, and all utility areas are concentrated in the two center sections. (see also plan on next page); photos below show living and bedroom modules being added to center utility modules.



crane sets in a day varies with the size of the crews, but generally speaking six men should be able to do the job in four days. Thus if the four townhouses shown above were delivered Monday morning, they would be ready for occupancy by Friday night. Finishing costs are part of the basic price to the builder, as are such amenities as carpeting, kitchen appliances, and central air conditioning.

What does all the foregoing mean in terms of dollars and cents? Take the case of Maurice P. Foley & Co. which is using MHS units for a second-home waterfront condominium project in Ocean City, Md. The company is now selling out of two models identical to the ones shown above; the price, including a pier in front of the houses and carports, is \$27,500.

"Conventional construction costs in this area are from \$14 to \$18 per sq. ft.," says company president Maurice Foley. "But our total cost is \$14 including everything but land and profit. Also, we'll turn over the whole first section—48 units—by the first of June. That means we use our construction money for 90 days, not nine months."

Another case in point: Towne Development Co. of New Castle, Pa., is building a 72-unit HUD turnkey project in Bradford, outside of Pittsburgh, with MHS units of from one to six bedrooms (see next page).

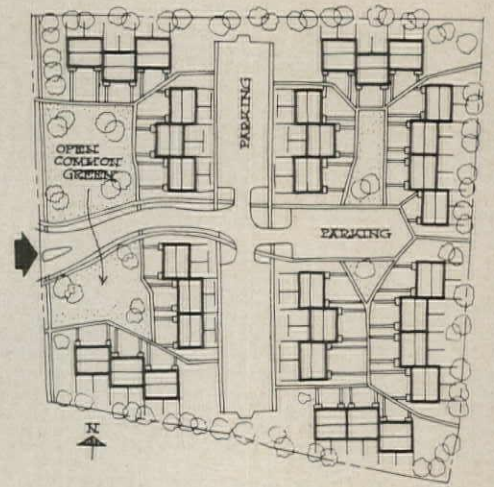
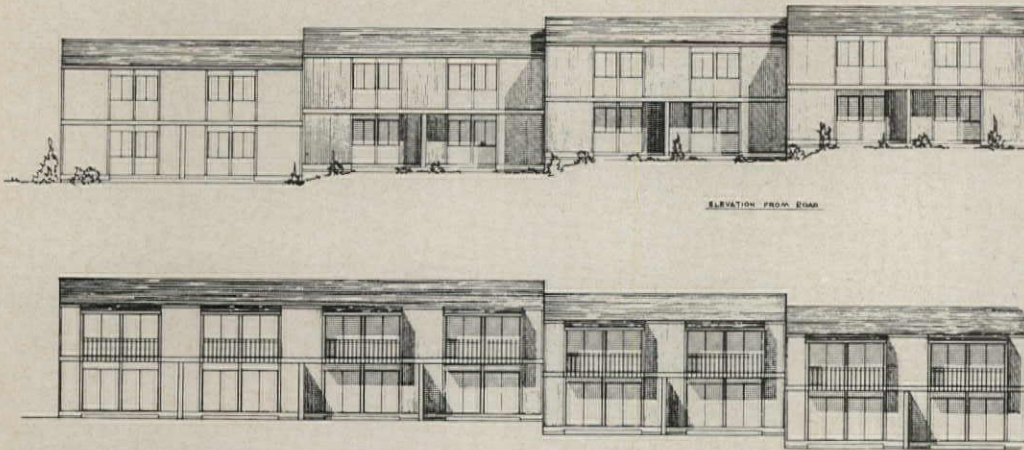
"We originally intended it to be a conventional project," says company president John Blackston, "but it priced out at \$18 per sq. ft. And although we redesigned it several times, we still couldn't bring it in low enough."

So Blackston checked on the MHS units, and the project has now come in at \$13.55 per sq. ft. "It's almost the same design," he says, "except that now we have brick veneer where we used to have wood. And most important, this is a system of real quality."

Foley agrees. "People have heard of modulares," he says, "and they often equate them with mobile homes. But we invite them to slam the doors and stamp on the floors, and they come away knowing this is stronger than conventional construction."

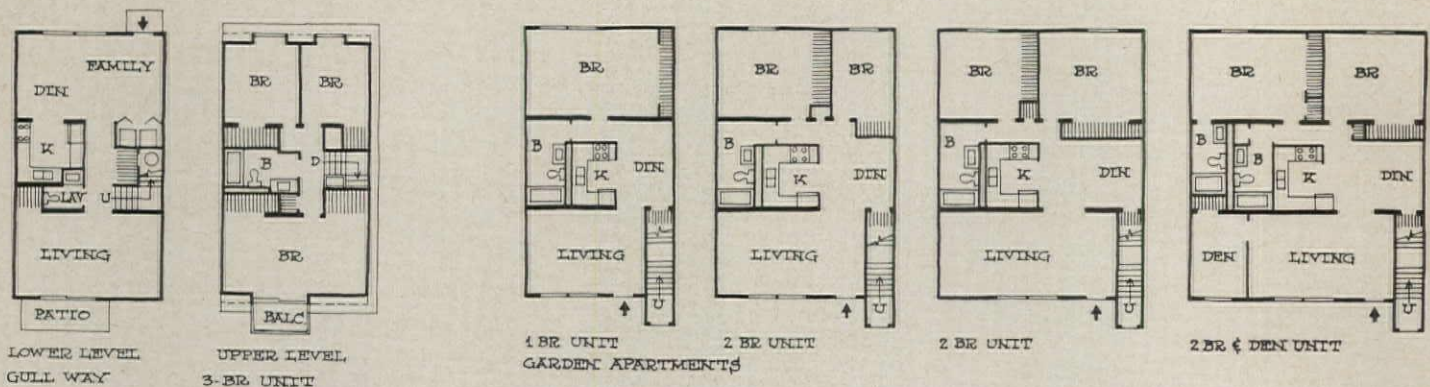
Foley is not actively pushing the fact that the houses are modulares. "But by the same token," he says, "we aren't running from it. If people are interested in construction, we explain the system and show them construction pictures. So far we've found no resistance at all."

*continued*



**CONTEMPORARY DESIGN** is one of several new styles being readied for future production. It includes a low-pitched roof which will meet height restrictions for over-the-road travel. Higher pitches would require swing-out design.

**LAND PLAN VARIATIONS** for a small townhouse subdivision show some of the different ways modular townhouses can be sited. Land planning is part of MHS's service package.



## Design: within the limits of the module, a fair degree of flexibility

There are a total of 42 different modules in the MHS system; with them the company is currently offering the following models, shown (except for two new ones) from left to right in the drawings immediately above:

A three-bedroom townhouse, three modules deep. This was the first model offered by MHS, and it was designed for Maurice Foley's Ocean City project. Says Grasso: "It would be relatively simple to expand this model by designing longer modules."

Four three-module-deep garden apartments, ranging from a one-bedroom, 700-sq.-ft. unit to a two-bedroom, two-bath unit with 1,000 sq. ft. The only difference between first- and second-floor units is in the stairwells.

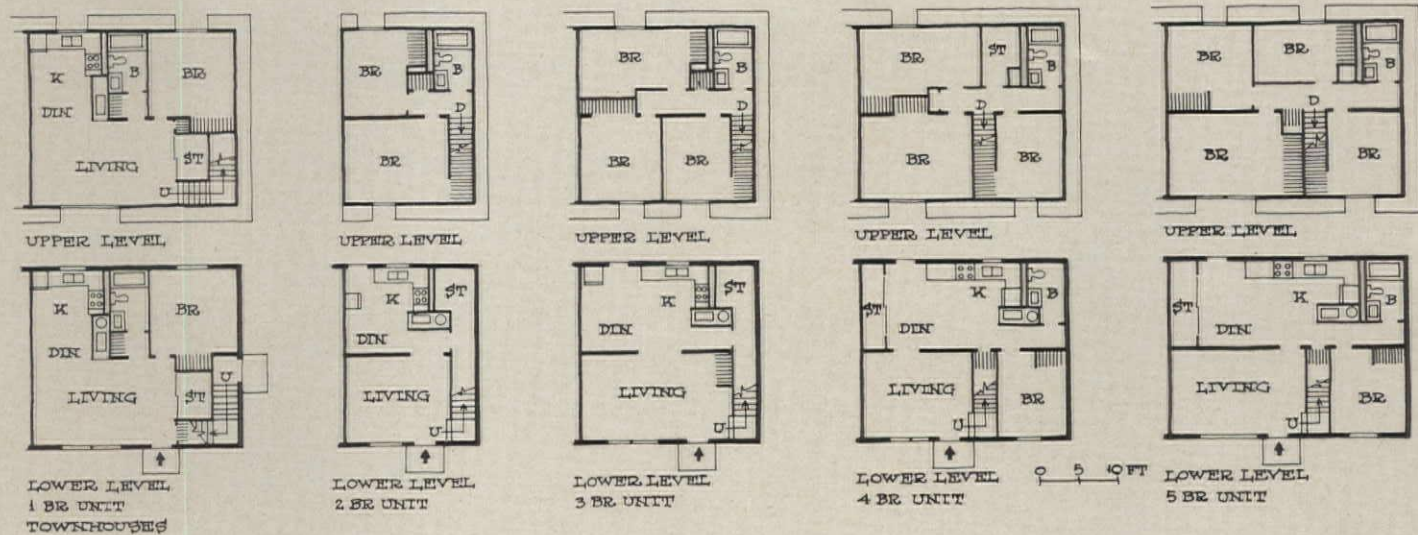
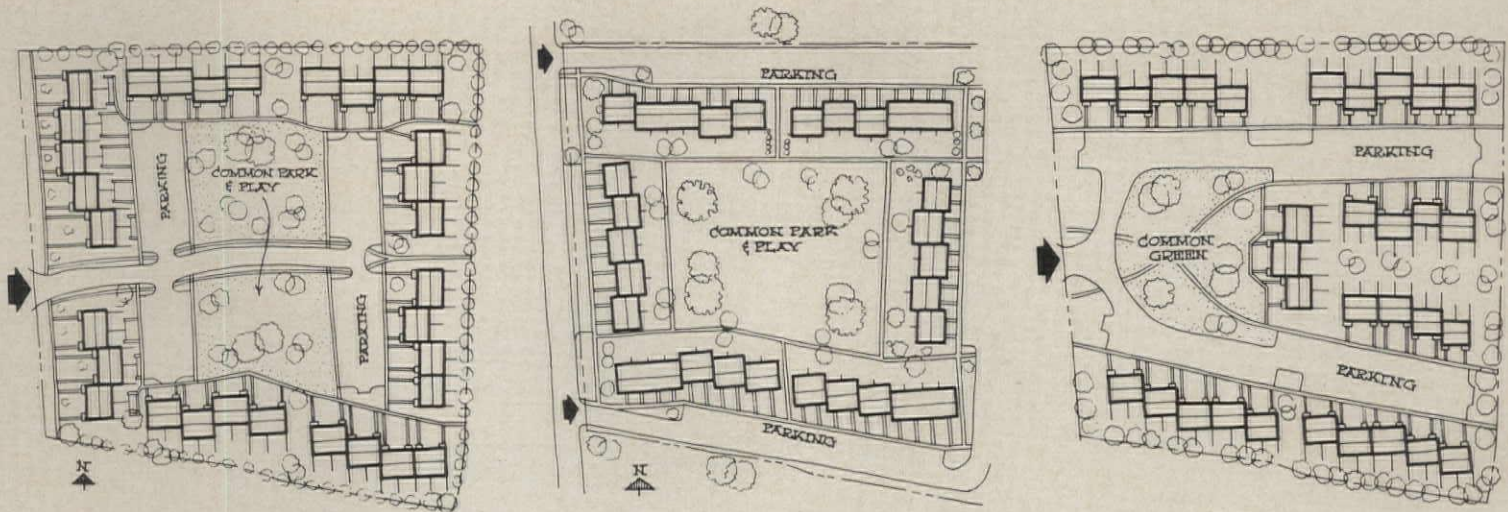
Seven units (only five are shown above) designed specifically to meet HUD turnkey specifications. They include two apartments—an efficiency (not shown) and a one-bedroom unit—plus five townhouse units with from two to six bedrooms (the latter is not shown) and from 850 sq. ft. to 1,700 sq. ft.

All except one of the HUD units is two modules deep. The exception is the six-bedroom model, which is three deep.

Exterior design, as noted earlier, is currently limited to mansard-roof models with

siding variations. (They are the work of Milo & Associates of Boston, who worked out the original module concept with Curtis Tomlinson, president of MHS). But MHS has new styles in the offing. One of them is shown at the top of this page; it is a contemporary design with a low-pitched roof, and it was for a 62-unit project which is shown with four possible land plans at the top of the facing page. (Land planning is part of MHS's service package, as is construction financing which is offered at going rates.) And other designs also are on the drawing board.

While these—and any other designs that are applied to modulares—must necessarily be restricted by the needs of standardization, the result need not be poor or monotonous design. And it's significant that this kind of positive thinking comes not just



from builders but from architects. One of the strongest believers is Charles Moore, senior partner of Moore-Turnbull, New Haven, and Dean of the Faculty of Architecture and Planning at Yale University. His firm is planning several projects that may be done with moduls, and Moore himself has been actively interested in the MHS systems.

"In a way," he says, "the very fact that we have such definite limits gives us more design freedom. So much is set that we can't start from scratch, so we know where we can concentrate our efforts. And a lot of those efforts can go into site planning and landscaping."

Another architectural firm, Lorenzi, Dodds & Gunnit, saw the MHS system and was sufficiently impressed to bring the company in on a large in-city, low-income proj-

ect in Pittsburgh. And still another firm is currently working with MHS on the design of a group of dormitory units for a major university.

In addition to new plans and designs, MHS is also looking towards some very different building concepts. The company recently hired Philip Waugaman, an architectural engineer formerly on the staff of NAHB, as director of research. And the first item on his agenda is a module—probably of steel construction—that would be used to build high-rises.

"We're getting ready to start on a new factory the same size as our present one," says Joe Grasso. "We may use it to expand our present operation, but we're also thinking of building our high-rise modules in it if they work out."

*Like today's other custom houses, the custom-designed vacation house often spawns ideas that find their way into merchant building. From four vacation houses, here are . . .*

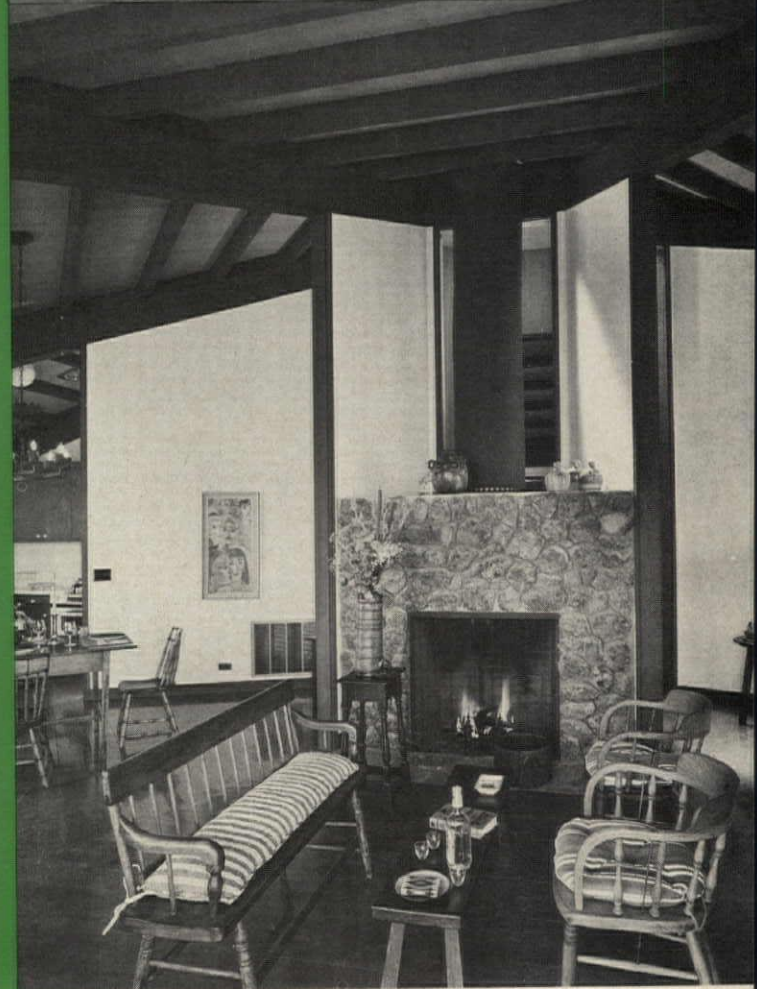
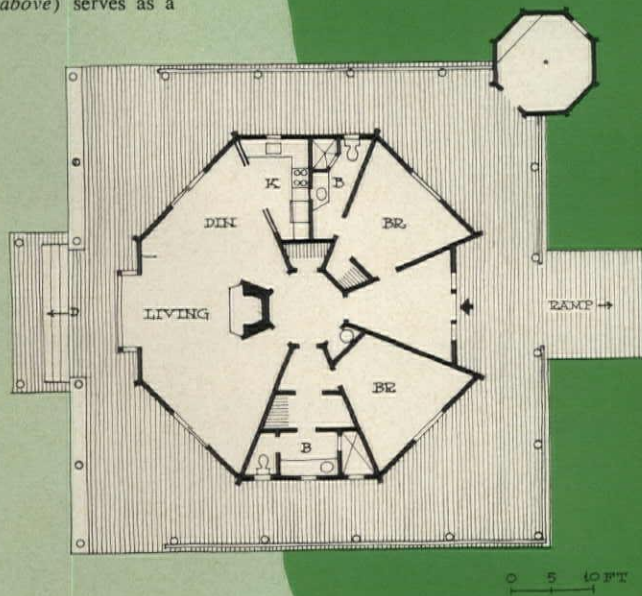


## Four fresh uses of interior space





Despite its odd, and interesting, octagonal shape, this small house (1,560 sq. ft.) is as well zoned as many larger conventional homes. Items: a central entry hall, isolation of the bedrooms from the active-living area and from each other, and orientation of the active-living area (*right*) to the best view. The waterfront house was designed for year-round use on a marshy, treeless site in duck-hunting country. Windows and glass doors open to a large deck with a dock on the water (*left*) and a ramp on the landward side (*foreground, above*). An octagonal skylight at the roof peak brightens the entry hall, and an octagonal shed (*above*) serves as a mudroom.

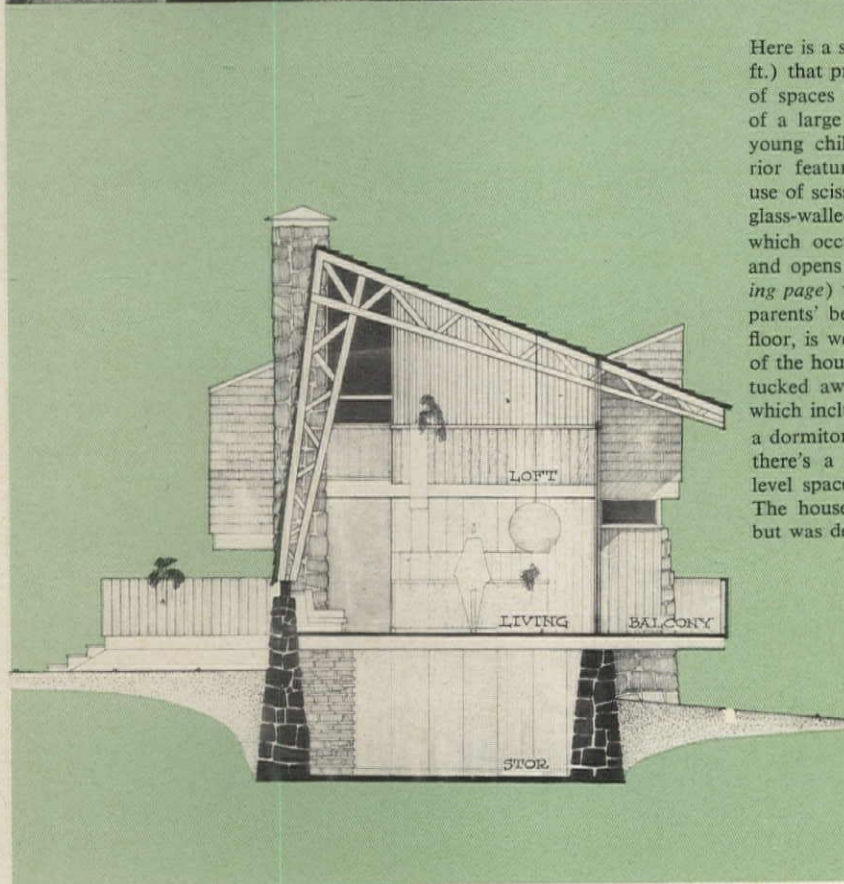
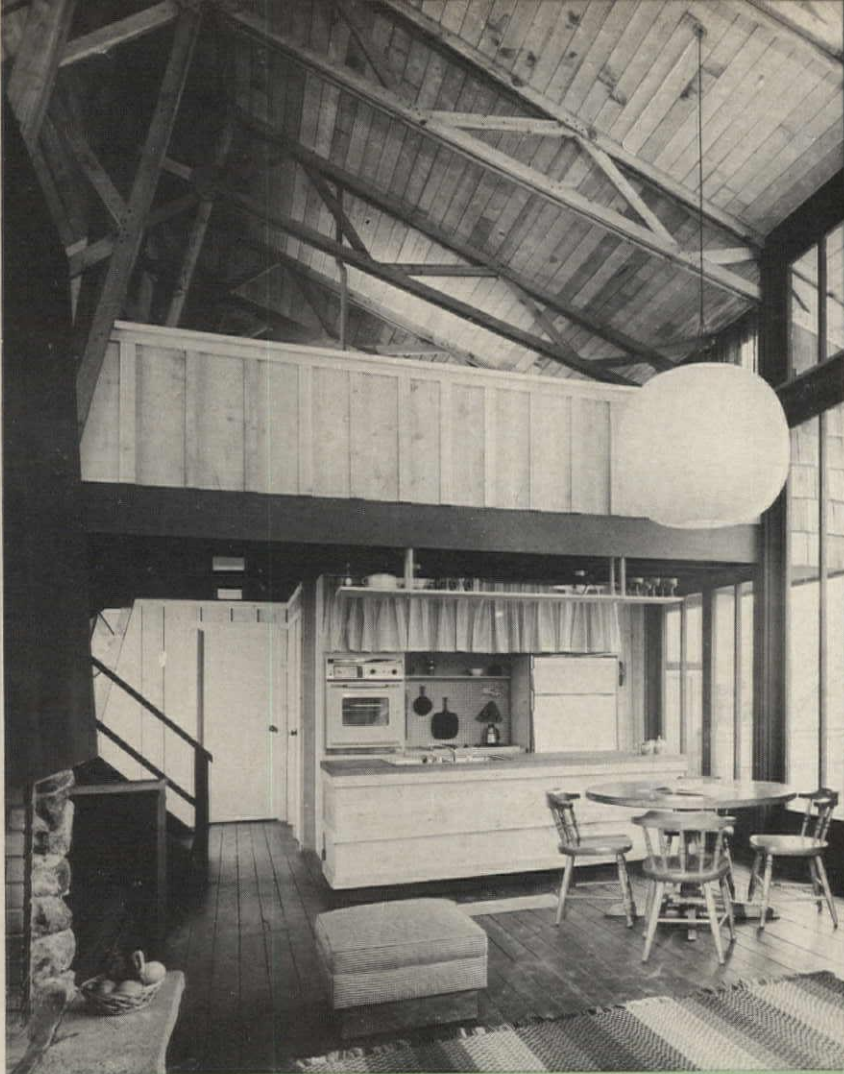


Karl H. Riek

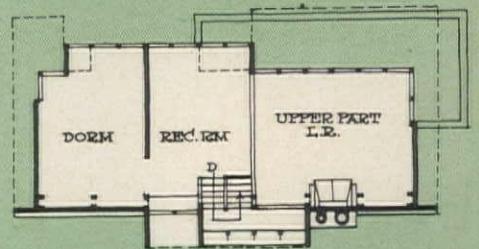
# 1. Neatly segmented space in an octagon

ARCHITECT: Daniel G. Volkman Jr. (Bull, Field, Volkman & Stockwell). BUILDER: Otto & Short. LOCATION: Marysville, Calif.



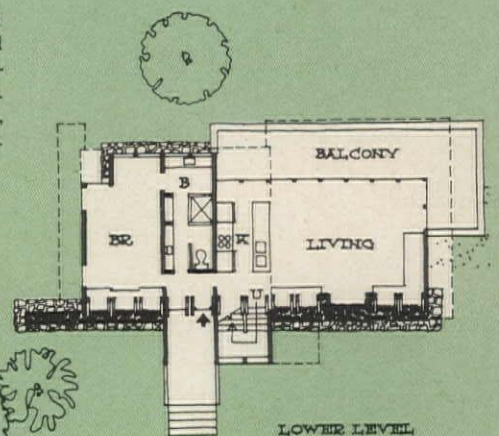


Here is a small house (only 1,474 sq. ft.) that provides a surprising variety of spaces and thus meets the needs of a large family (parents and four young children). Its dominant interior feature—made possible by the use of scissor trusses—is a two-story, glass-walled living room (above), which occupies half the main floor and opens to a balcony (top of facing page) with a mountain view. The parents' bedroom, also on the main floor, is well separated from the rest of the house. Children's activities are tucked away on a loft (above left) which includes a recreation area and a dormitory with built-in bunks. And there's a mudroom in the ground-level space beneath the living room. The house is primarily a ski lodge, but was designed for year-round use.



UPPER LEVEL

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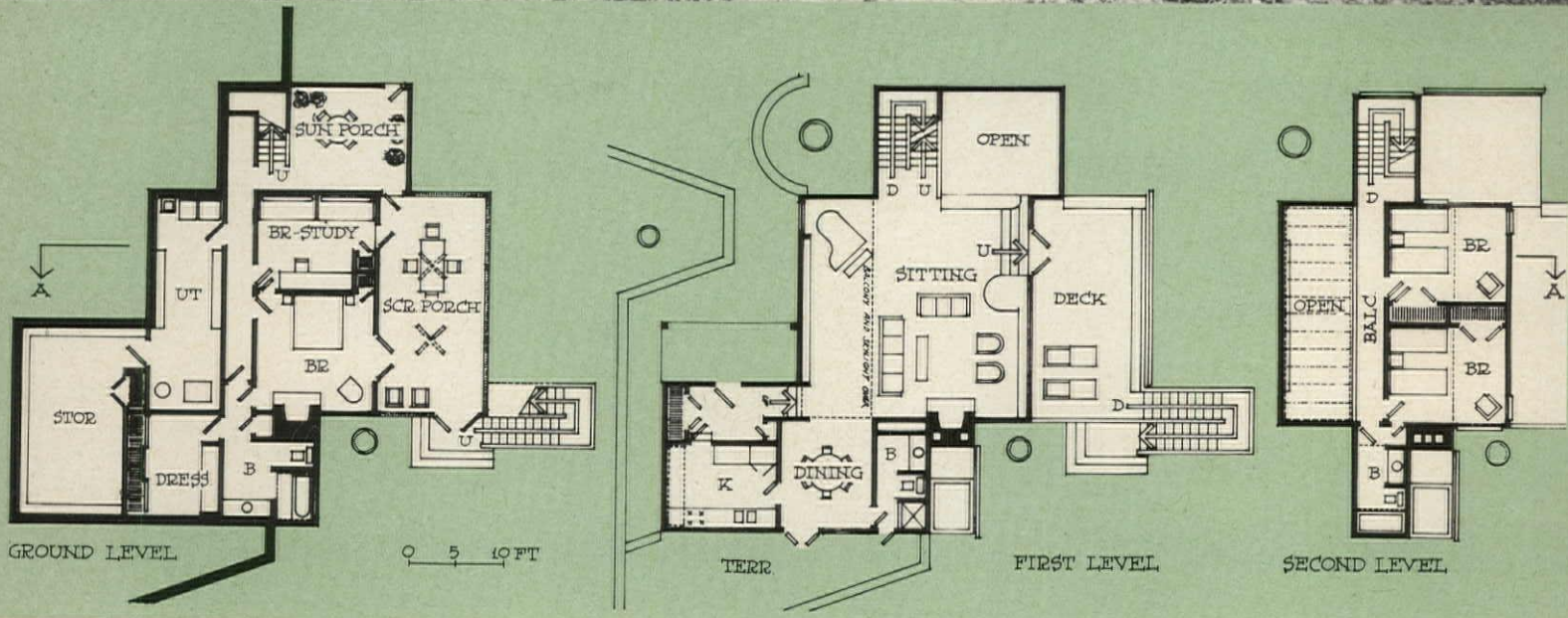


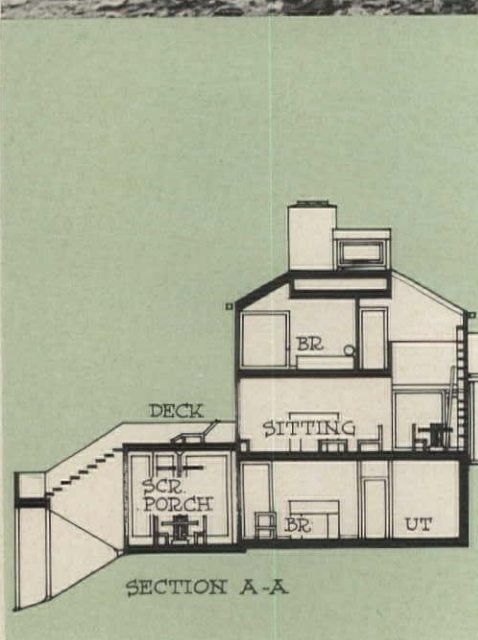
LOWER LEVEL

Photos: Louis Reens

## 2. Spatial contrasts in a tight framework

ARCHITECT: Gerard R. Cugini. BUILDER: Vahan Sarkisian. LOCATION: Newbury, N.H.





Its outward shapes and materials are reminiscent of early American design, but the flow of space inside this house is pure contemporary. For example, one end of the big (624-sq.-ft.), mid-level sitting room overlooks a shed-roofed, lower-level sun porch, and one side is a two-story area topped by the skylight shown at right. As vacation houses go, this one is large: 2,331 sq. ft. on three levels. Its main entry (*right in photo above*) is at the middle level. The bottom level was planned as the owner's private apartment. And the top level, actually a balcony overlooking part of the sitting room, provides quarters for guests.

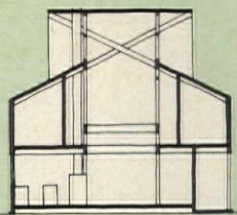


Photos: William Dreyer

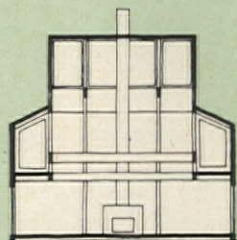
### 3. Today's spaces in a garb that echoes the past

ARCHITECT: Walter Dodd Ramberg. BUILDER: Arthur K. Bosley. LOCATION: Ruxton, Md.



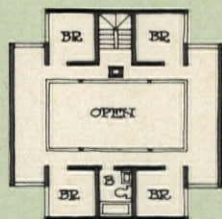


SECTION A-A



SECTION B-B

This small house (1,300 sq. ft.) illustrates a trend that has already spread from custom homes to merchant building: the opening up of interiors to dramatize the house and make it seem larger. The heart of the house is a three-story space (right), surrounded by a balcony and lit from above by two banks of windows. The first level is a single open area extending to the outdoors through sliding glass walls. The second level is used for bedrooms and open bunk areas. And at the top of the house are two aeries, reached by retractable ladders. The structure—posts and girts, plus four interior columns and X trusses to support the highest roof—is exposed. And interior and exterior finishes are natural wood.



UPPER LEVEL



LOWER LEVEL

0 5 10 FT

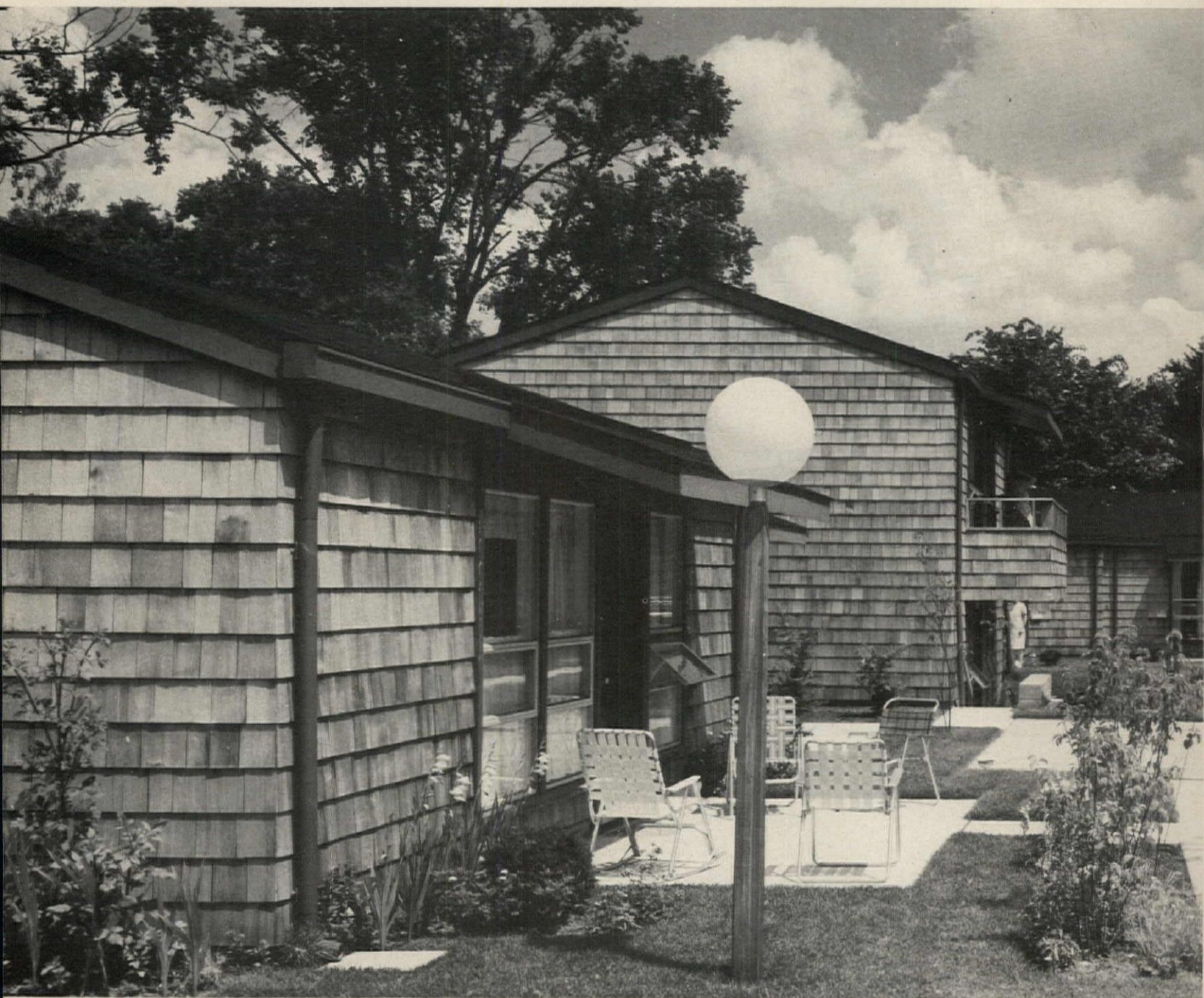


Photos: Ezra Stoller

## 4. Soaring space in a no-frills enclosure

ARCHITECT: Alfred De Vido. BUILDER: Peter De Castro. LOCATION: East Hampton, N.Y.

**If all subsidized housing looked as good as this...**



**would so many communities still resist it? Here is...**

## **Public housing the whole**





## town likes

The town is Wayne, Mich., just west of Detroit. And the public housing is an apartment project for the elderly (people over 62 or, if disabled, 55), owned and operated by the local housing authority.

The clustered, one-bedroom units were designed by William Kessler & Associates, an architectural firm with a long string of outstanding public-housing projects to its credit, and was built by a Detroit home-builder, Holtzman & Silverman, that has been bidding and building public housing jobs since 1961.

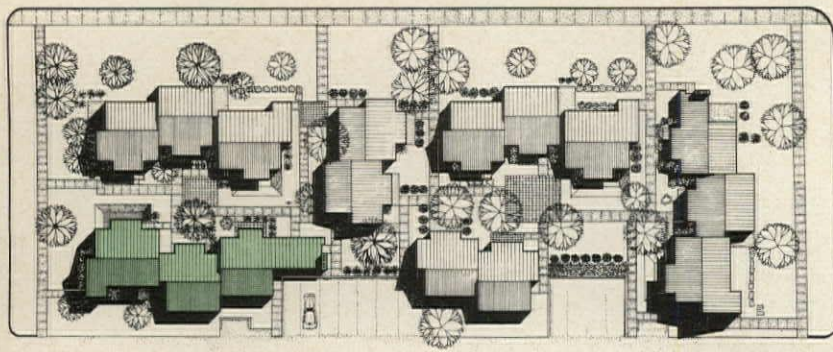
Like so much public housing, the project drew initial criticism because it was being

introduced into an established neighborhood. And during construction, there was some doubt about the unorthodox siting of the units and the shingled exteriors, which were unfamiliar in the area. Says Patrick Cullen, city clerk and executive director of the housing authority:

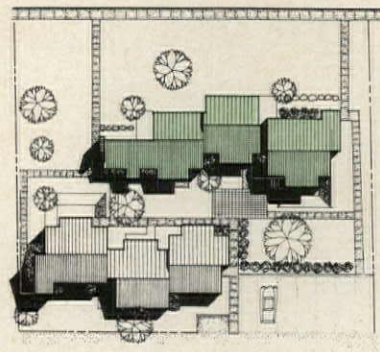
"There was some concern about how these houses would fit into the neighborhood. But when they were finished and landscaped, when the walks and courts were put in and the shingles applied, the complaints ended."

*The project won community acceptance primarily because it has a quality that peo-*

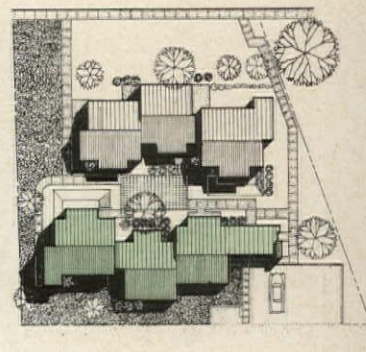
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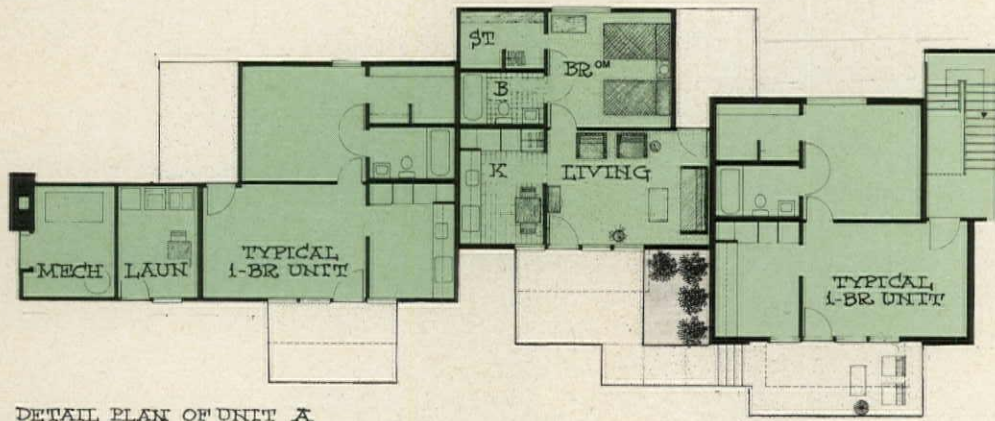
SITE A



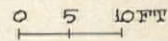
SITE B



SITE C



DETAIL PLAN OF UNIT A



**CLUSTERED UNITS**, on three adjoining blocks of a major traffic artery, face away from street and into central courts. Says architect Kessler: "Some people think the elderly want to look out at passing traffic because of the sense of life and movement. But we've found they want to see their neighbors, to wave to them, and to congregate in semi-private outdoor areas. That's why we oriented all the living rooms (one is shown at left) to the interior of the site." Other popular features are the several small laundry rooms, rather than one large one, the 5'x8' on-grade storage room in each apartment, and the ample cabinet space in kitchens (right).



ple don't generally associate with public housing. For instance:

- Its scale is small and so it doesn't overwhelm the neighborhood. There are only 36 units on three adjoining, and self-contained, parcels (site plan, above).

- It has the environmental character of a good privately built apartment or townhouse project. Buildings turn their backs on the street and face inward to attractively landscaped courtyards.

- It has the feel of suburban, single-family housing—plenty of open space, pitched roofs, and a mixture of one- and

two-story buildings in the project.

*The mixture of building heights, an esthetic asset, resulted from economic necessity.* In 1964, when the project was originally designed with 26 units, bids came in at well over the \$17,000 statutory limit. The solution was to add units to the site and thus reduce the land costs per unit (this required a variance of permitted density).

"The extra density was really a blessing," says architect Kessler, "because it forced us to include the two-story units that give the clusters a needed variety. And

by using split-level siting, we have no more than a half-flight of stairs, up or down, to the entrances. There is no objection to this by the elderly."

Says builder Gilbert Silverman:

"We are prouder of this job than any other we have done, but all the credit should go to Kessler. He designed it; all we did was build what he put on paper."

But Kessler disagrees:

"Holtzman & Silverman deserve praise for a fine job. They really worked with us to keep costs down without hurting the overall design, and I appreciate the workmanship they delivered."



### HOW THE COSTS BREAK DOWN

	TOTALS	PER UNIT
<b>Overhead</b>		
Nontechnical salaries	\$9,775	
Legal expenses	175	
Employee benefits	785	
Sundry overhead	2,715	
<b>Total overhead</b>	<b>13,450</b>	<b>\$373</b>
<b>Interest to PHA Planning</b>		
	<b>11,500</b>	<b>320</b>
<b>Planning</b>		
Architectural and engineering fees	20,107	
Permit fees	2,000	
Inspection costs	7,200	
Fee for PHA services	765	
Sundry planning costs	591	
<b>Total planning</b>	<b>30,663</b>	<b>852</b>
<b>Site acquisition</b>		
Property purchase	60,237	
Surveys and maps	775	
Appraisals	1,260	
Legal site costs	840	
Sundry site costs	898	
<b>Total site acquisition</b>	<b>64,010</b>	<b>1,778</b>
<b>Construction and equipment</b>		
Site improvements	7,060	
Dwelling structures	465,790	
Dwelling equipment	9,000	
Nondwelling equipment	107	
<b>Total construction and equipment</b>	<b>481,957</b>	<b>13,387</b>
<b>Grand totals</b>	<b>\$601,580</b>	<b>\$16,710</b>

**But Bill Kessler says  
this may be the last  
public housing his firm  
designs... For his  
reason, turn the page**

**“Despite its merits,  
Turnkey public housing  
tends to weaken  
the incentive  
for good design”**

So says architect Bill Kessler, whose firm designed its public housing projects (four previous pages and right) under a system now largely supplanted by Turnkey.

Under that system, each local housing authority commissioned an architect to design a project, put his plans and specs out for bids, awarded the contract, and paid the architect's fee.

Under the Turnkey program, design is the builder's responsibility. Builders submit not only bids, but also designs for a project. One scheme is picked, the others discarded.

“In effect, the builder is asked to gamble,” says Kessler. “If his scheme is picked, fine. If not, he has nothing to show for his initial investment in the design. So it's not surprising that builders try to keep that investment as low as possible.”

*As a result, says Kessler, Turnkey can leave the architect on the outside looking in. He concedes that the new program has made a big dent in the red tape and delays of the system, but feels it places a premium on low cost and delivery speed rather than on environmental planning and design excellence.*

“We can't do this work unless we know we're going to be paid for it,” says Kessler. “Either the contractor bidding a Turnkey project must gamble on the cost of outstanding design, or we must work out an equitable arrangement to share his risk and his profit. But we can't gamble the cost of design against the typical fee. Our expenses are out of proportion to any possible gain.”

*Some of architect Kessler's views on design are echoed by a homebuilder. Gilbert Silverman of Holtzman & Silverman, which built the Wayne, Mich., project on the previous pages, is concerned about the way a builder's scheme is selected under the Turnkey program.*

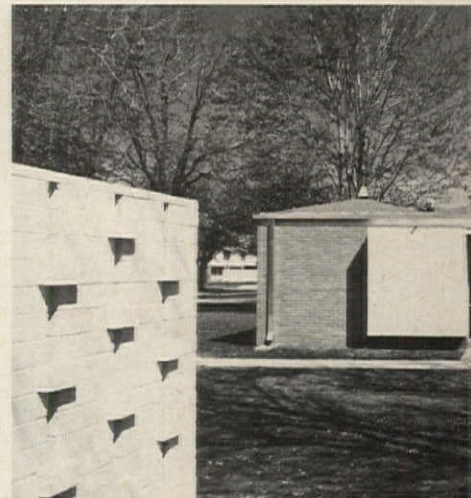
“The decision can be based only on price,” he says, “and if that's the case, good design may well get short shrift.”

“The very details that make the Wayne housing so pleasant are details that cost more to carry out. Specifically, the number of exterior jogs in the buildings, the butted shingle corners, the off-the-ground forming of the concrete chimney caps, the wells around existing trees, the landscaping of the originally flat site, are all expensive. But they are the very things that set this project apart from the ordinary, and the things that make it better to live in.”

*Four projects, spanning*



**Mt. Clemens, Mich., 1960**  
100 units at \$14,000 per unit

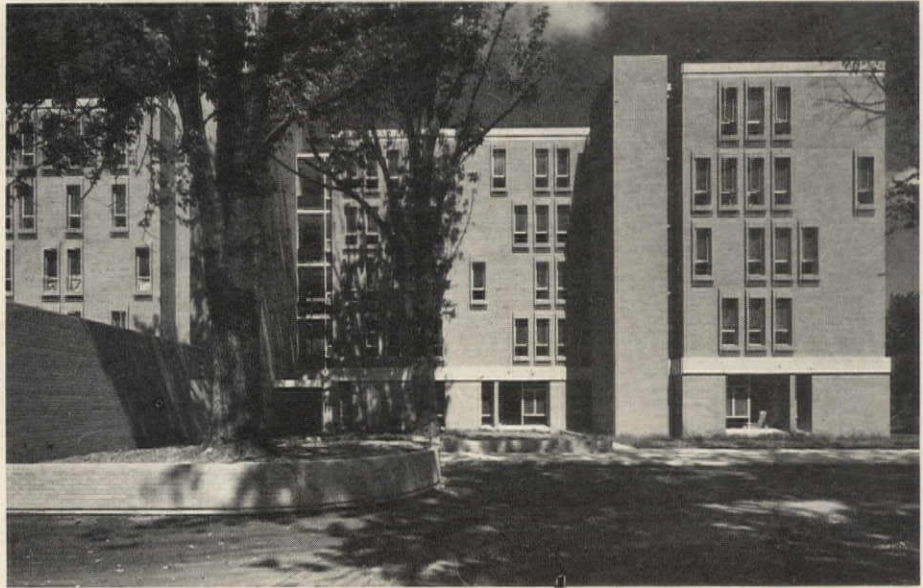
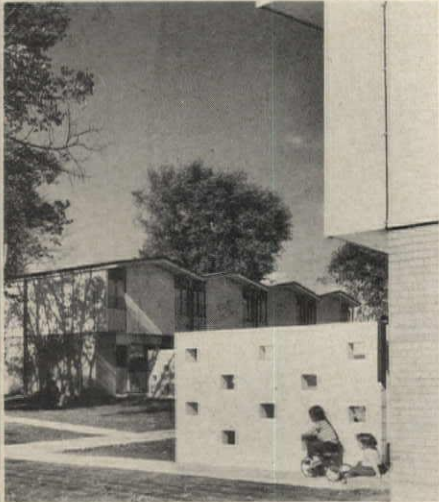


**Mt. Clemens, Mich., 1962**  
60 units at \$14,403 per unit



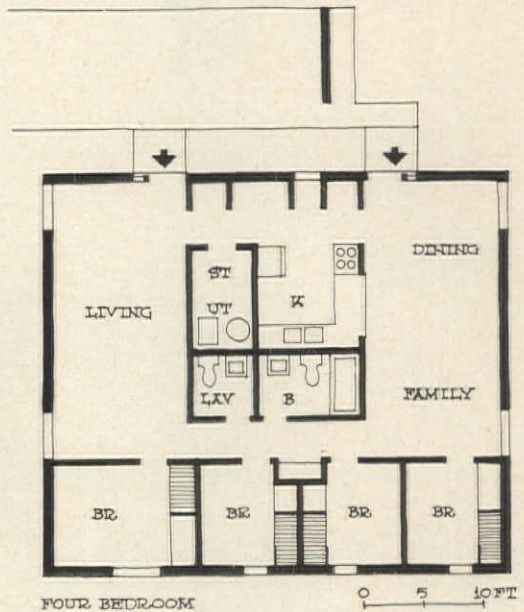
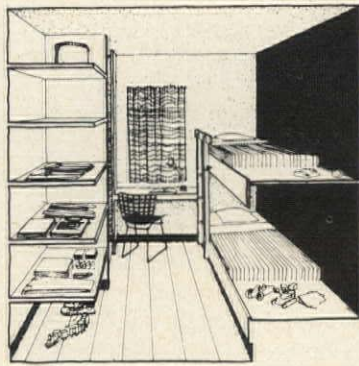
**Wayne, Mich., 1961**  
40 units at \$14,805 per unit

a decade, show the caliber of architect Kessler's public housing



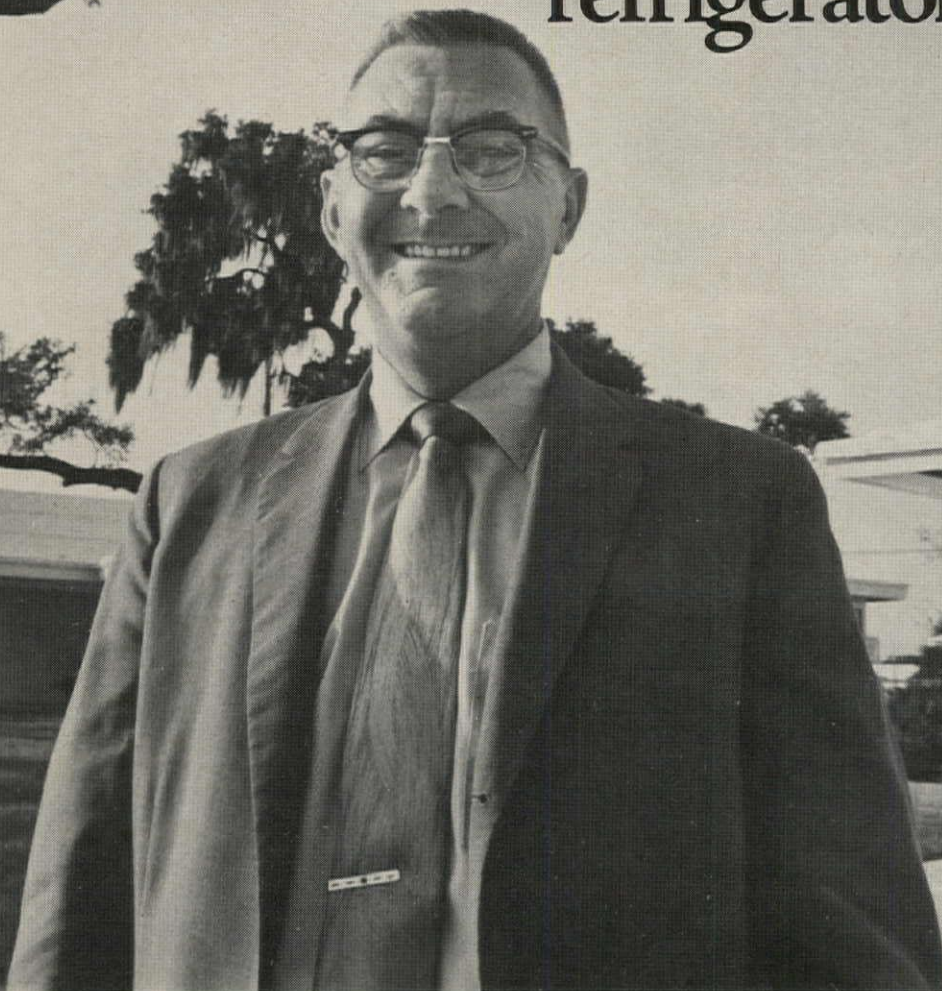
**Oberlin, Ohio, 1966**  
**51 high-rise units for the elderly at \$17,700 per unit**

Houses for big families (*bottom and plan, right*) were designed with minimum-size bedrooms containing bunk beds and planned storage (*drawing, below*). All saved space went into a 22'8"x11' family room, a "luxury" not previously allowed in public housing.



**Oberlin, Ohio, 1966 (family houses)**  
**54 houses at \$17,700 per house**

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dishwashers and disposers.  
And I wish they made  
refrigerators, too."**



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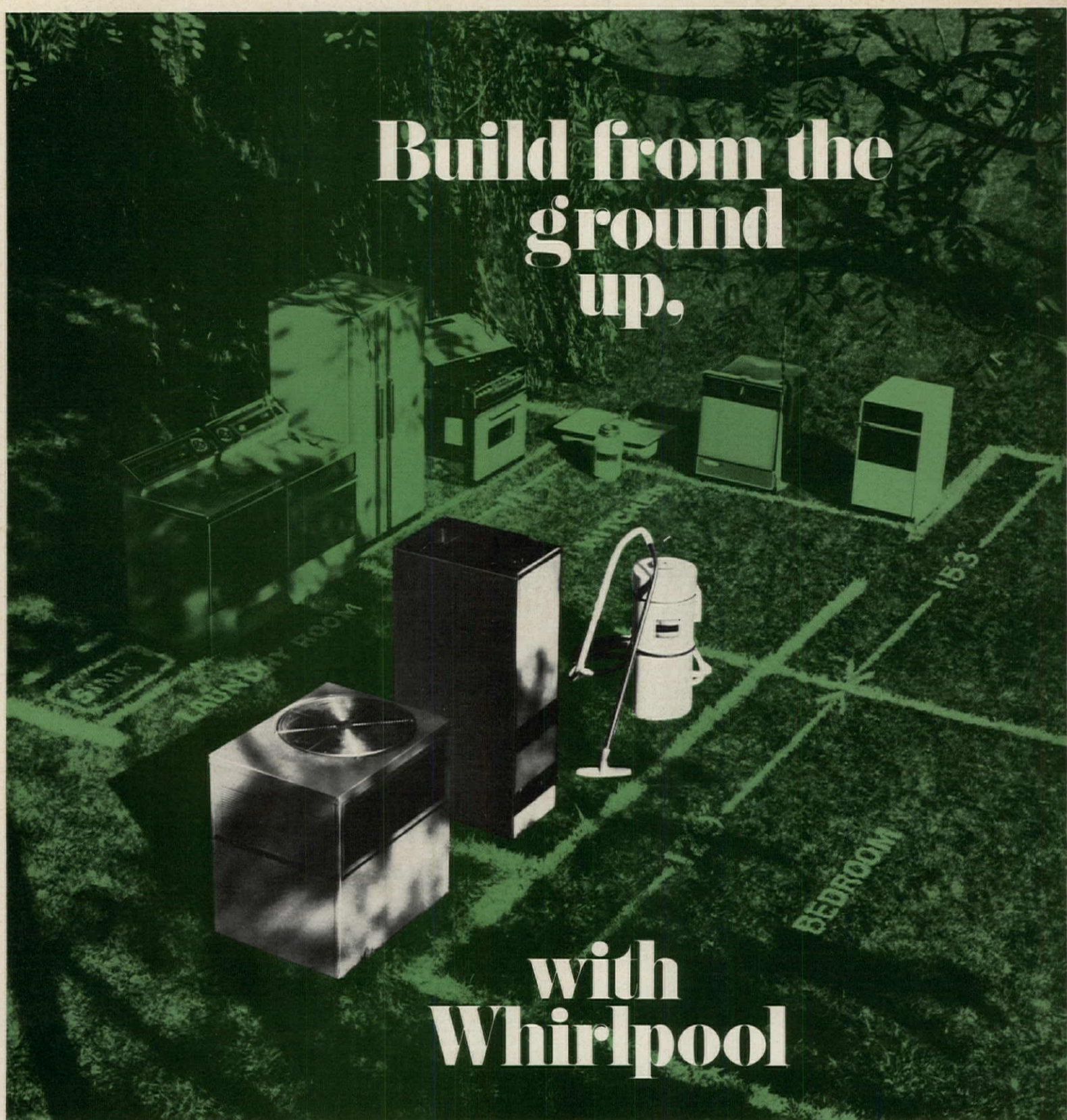


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The core is made of warm natural wood.

But all exterior surfaces, except the sash, are encased in a sheath of rigid vinyl. (Just like a coat of armor.) And the sash is protected by a special polyurea factory finish that won't chip, crack, peel or require painting for at least 10 years.

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## NEW PRODUCTS

For more information, circle indicated number on Readers Service card p. 125

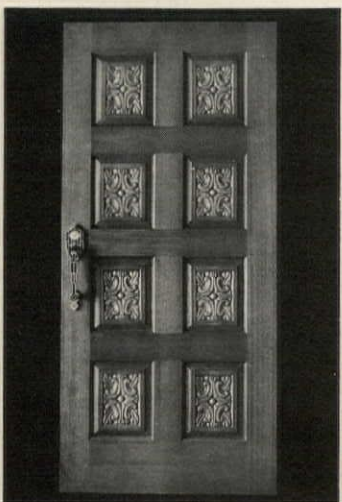
### Doors and windows



**Steel entrance door** comes, with or without the insulated glass inserts, in 19 styles. Coordinated sidelights available. Steel-and-foam sandwich is warp resistant. Adjustable threshold and magnetic weatherstripping. Taylor, Detroit, Mich. Circle 203 on Reader Service card



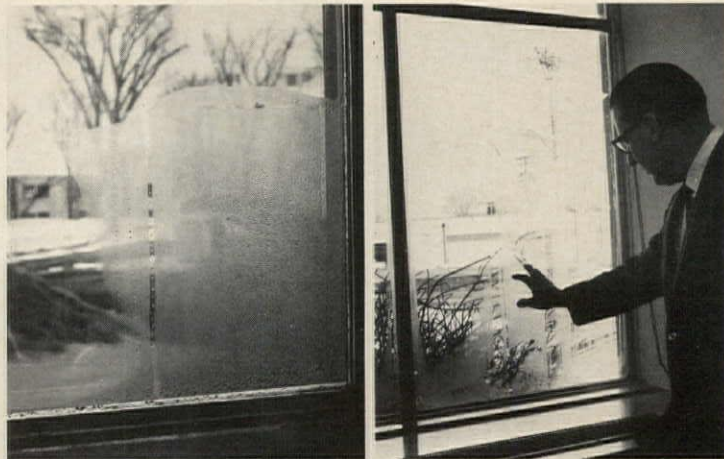
**Elegant house numerals** are individually hand-crafted from aluminum in sand-cast molds. Numbers are finished in silver or satin black, and come in 2", 4", and 6" sizes. Also available: letters in 2" and 4" sizes. Dimensional Products, Santa Ana, Calif. Circle 204 on Reader Service card



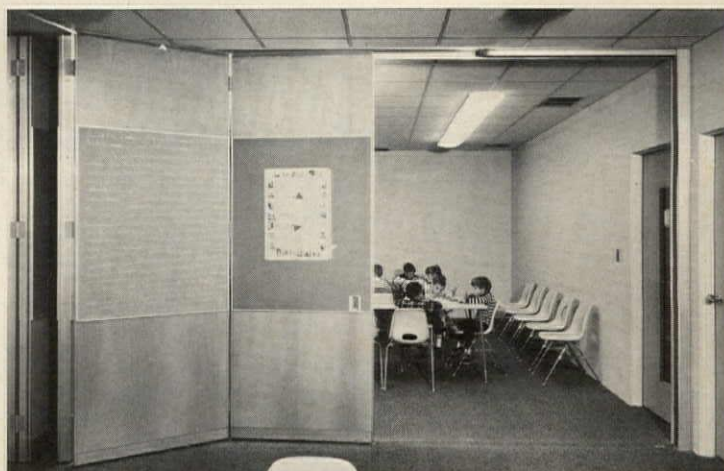
**Carved panel doors** are of Malaysian red meranti (mahogany), which is lower in density and closer in grain than Philippine mahogany or lauan, easier to carve and hang. The light-colored no-resin wood takes stains well. St. Regis, New York City. Circle 205 on Reader Service card



**Solid wood doors** are hand-carved of Philippine mahogany. This door, with eight French-inspired panels, is just part of a line that also includes more contemporary and rustic styles. All standard widths and heights. Elegant Entries, Worcester, Mass. Circle 206 on Reader Service card



**Solar window film** is designed to resist moisture, so it adheres to surfaces subject to condensation and to irregular and patterned glass. The one-mil polyester film has a metallic finish that reflects heat and glare. 3M, St. Paul, Minn. Circle 207 on Reader Service card

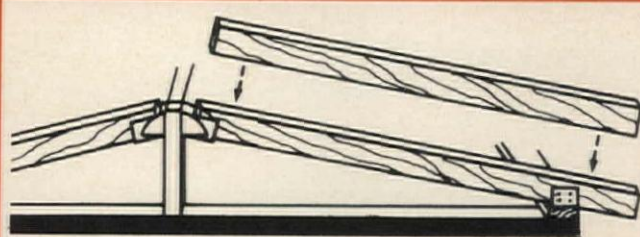
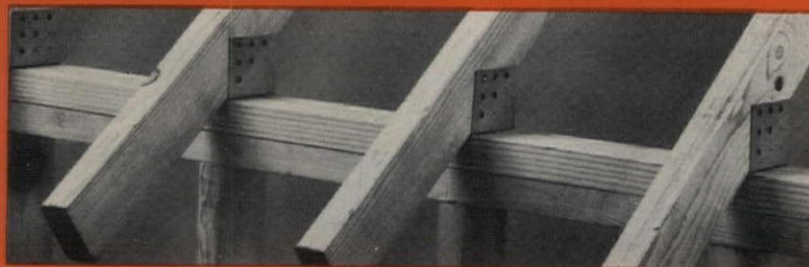


**Fiberglass screening**, charcoal-colored so it's barely discernible from indoors or out, is held taut by top and bottom aluminum rails that can be cut to custom widths. Scissors will cut screen to right lengths. Virginia Iron & Metal, Richmond, Va. Circle 208 on Reader Service card



**Folding wall** is continuously hinged, comes with automatic pressure seals at the floor or with fixed seals that sweep the floor. Both types have slim aluminum jamb, easily installed track, good sound rating. Holcomb & Hoke, Indianapolis, Ind. Circle 209 on Reader Service card

New products continued on p. 116



# SADDLE BRACE.

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NOW AVAILABLE FROM BOSTITCH, Saddle Brace roof framing system—a significant development in building construction. Saddle Brace system is a rugged, simple method of framing which gives builders and remodelers remarkable savings in conventional roof framing.

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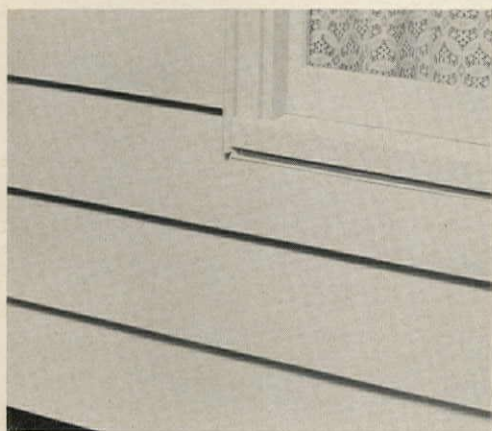
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**Bostitch will find the way**

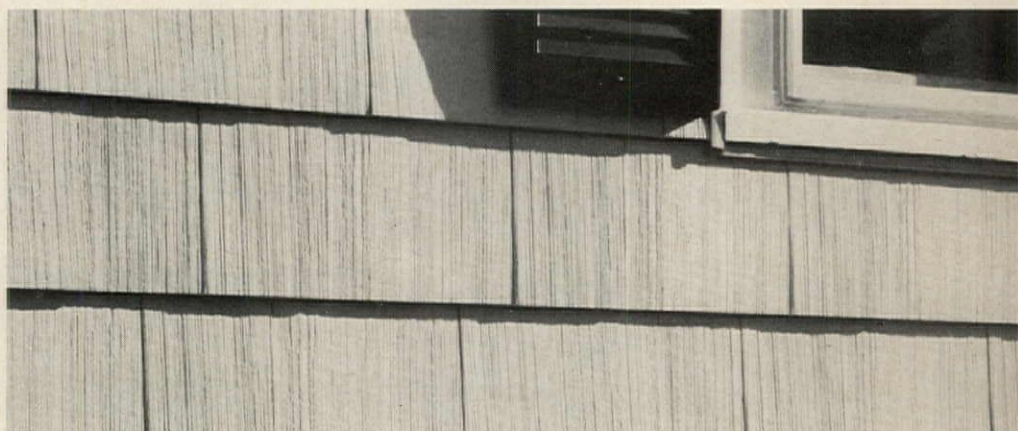
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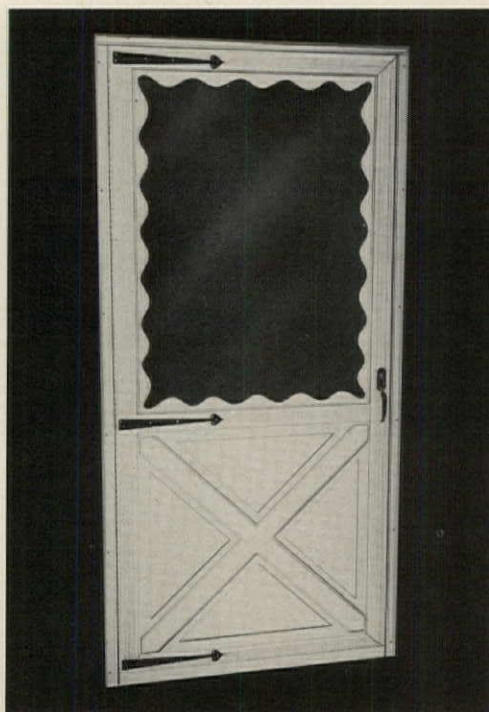
Siding that resists denting . . .



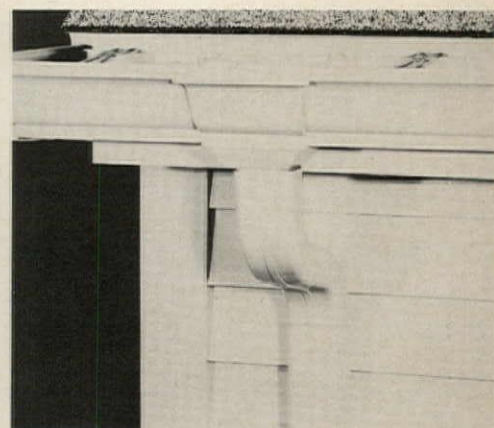
. . . and can look beautifully shake . . .



. . . or charmingly stone.

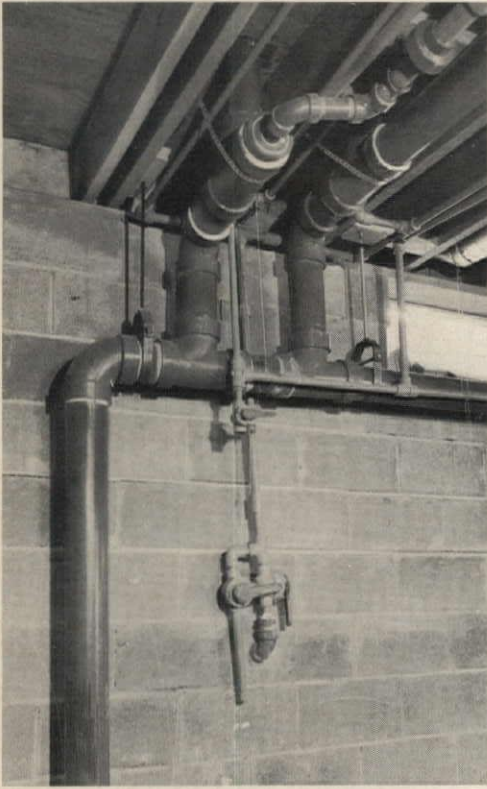


Storm doors and windows that reduce sweating and sticking.

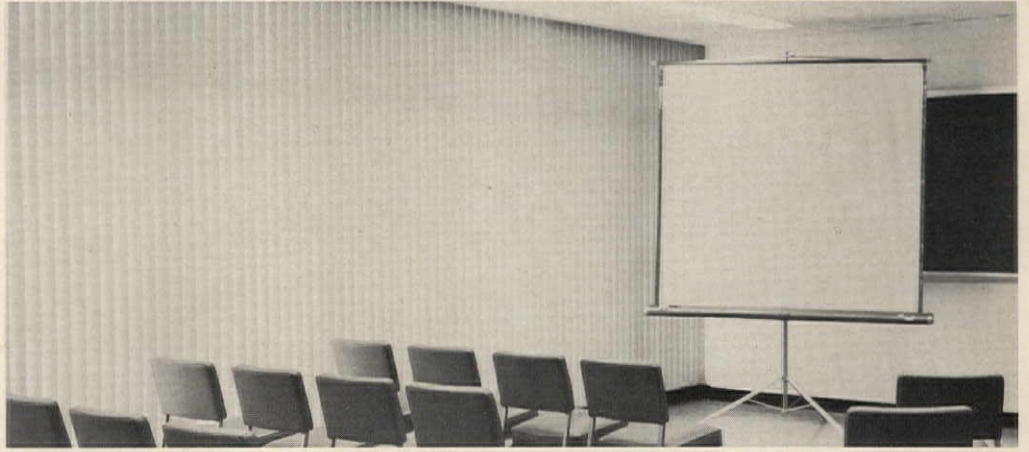


Gutters and downspouts that won't corrode or blister.

# And that makes the difference in selling houses.



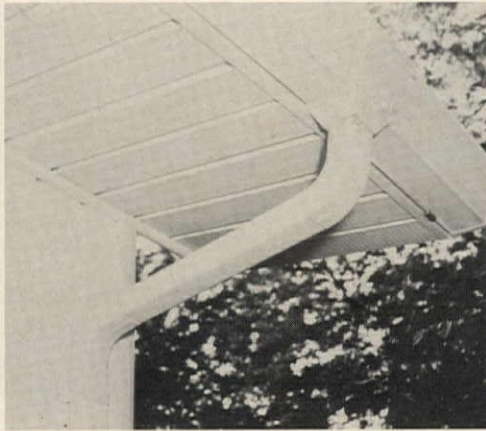
DWV and water supply pipe that resists build-up of hard water deposits and reduces heat loss.



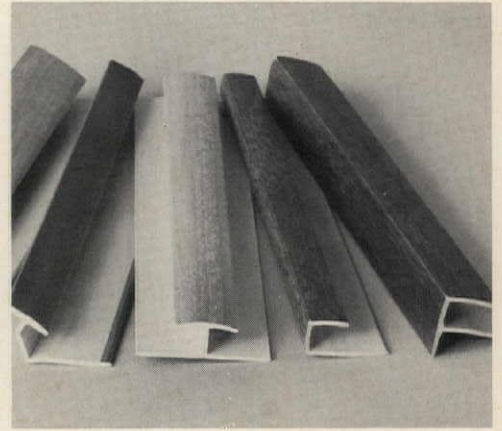
Louvers for vertical blinds that resist twist, warp or bow. That close perfectly from top to bottom.



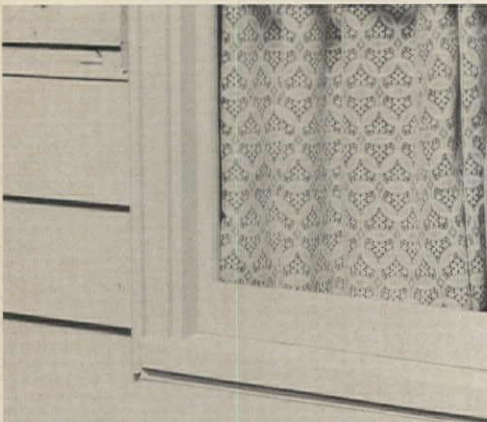
Shutters that don't rot or peel.



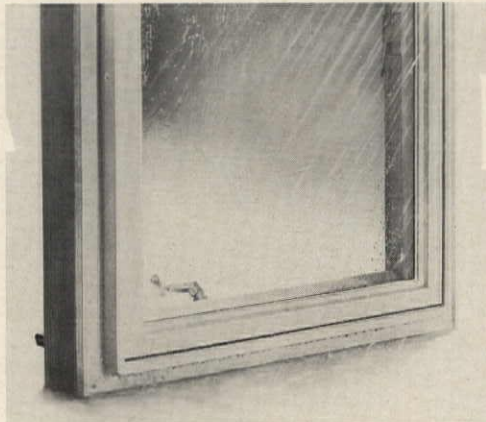
Soffit panels that resist warping. Panels that are strong but light and easy to handle and cut.



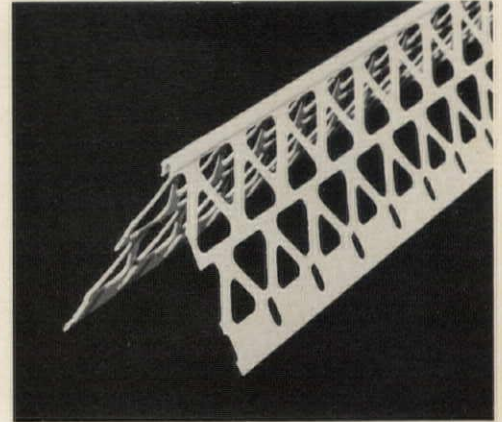
Interior trim that requires no painting.



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Solid vinyl corner bead that's tough, won't rust.

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Put concrete housing systems ideas to work...  
reduce labor and financing costs...increase return on investment.



**Residential concrete flooring systems cut costs. Accommodate heating, ventilating, cooling ... serve as ceiling for floor below.**

**And if that isn't enough, they make excellent roof decks, too.**

Residential flooring systems adapt to any plans. They can be cast-in-place slabs or big precast sections that go together in far less time than ordinary floors.

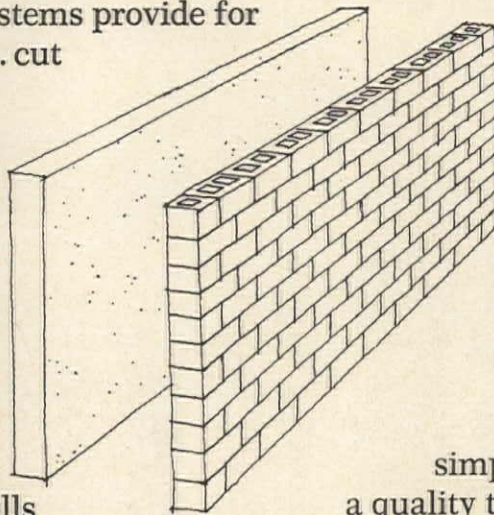
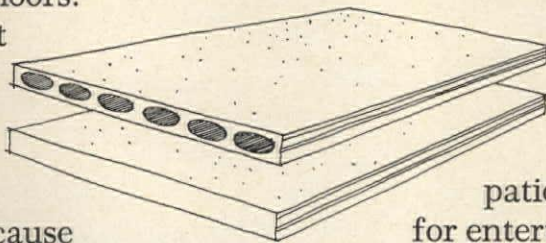
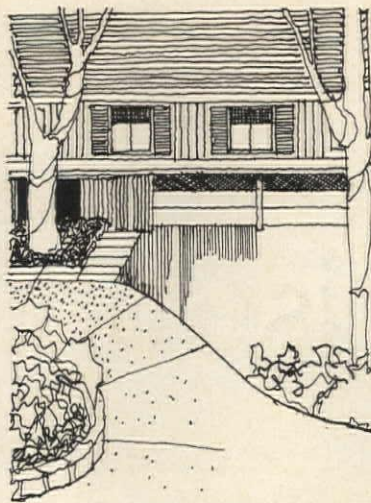
The installed cost is competitive with wood floor construction.

Costs are reduced sharply because the systems readily accept mechanical, electrical, plumbing and communications sub-systems ... simplify and speed installation.

Concrete floor systems provide for sound conditioning ... cut insurance costs too. What more could you ask of a floor that's a ceiling that's a roof?

**Concrete load bearing walls go up fast, reduce maintenance.**

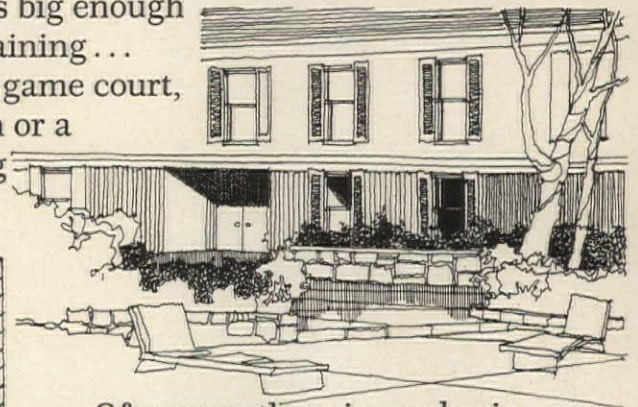
Whether cast-in-place, precast or concrete masonry, concrete walls provide maximum fire resistance, sound control, and weather protection. And that's not all ... concrete walls allow unlimited design flexibility, inside and out.



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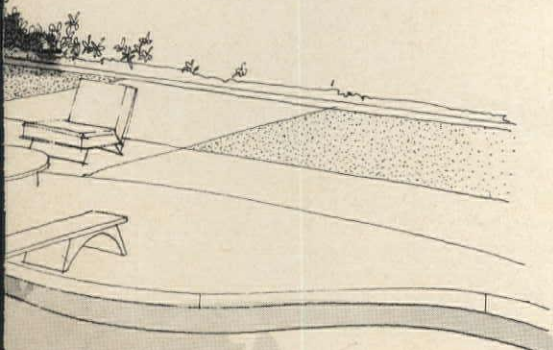
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## NEW PRODUCTS

start on p. 110

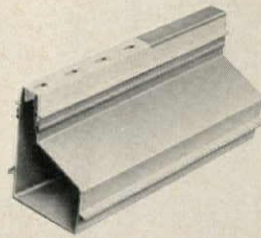
### Structural materials and hardware



**Snap-off ties** now come in stainless steel that eliminates rust stains on finished concrete wall. After holding forms together during pouring and curing, ties are snapped off about 1" into wall. Richmond Screw Anchor, Bronx, N.Y. *Circle 210 on Reader Service card*

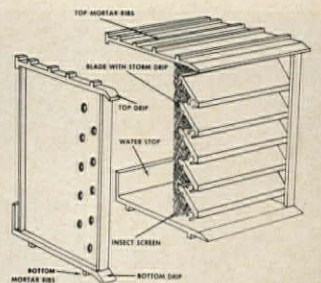


**Aluminum columns**, 8' high, can be easily cut for exact fit, can't rust, don't need painting, come in white or black with a heat-bonded acrylic finish. Low-cost line includes flat and corner nonsupporting columns. Bel-Met, Greensburg, Pa. *Circle 211 on Reader Service card*



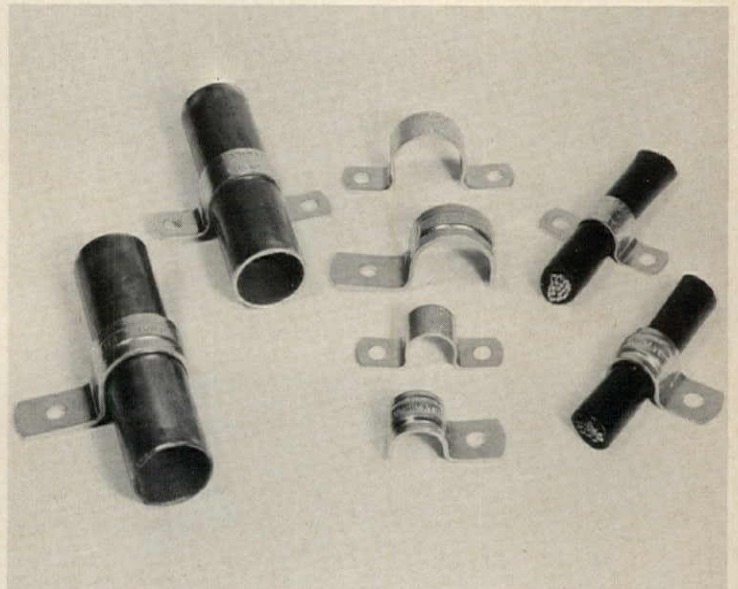
**Vinyl drain** is also an expansion and contraction joint system for patios, driveways, pool decks, and other concrete structures, prevents cement from cracking. No deep trench needed. Generous channel speeds drainage. D.F.C., Beverly Hills, Calif.

*Circle 212 on Reader Service card*

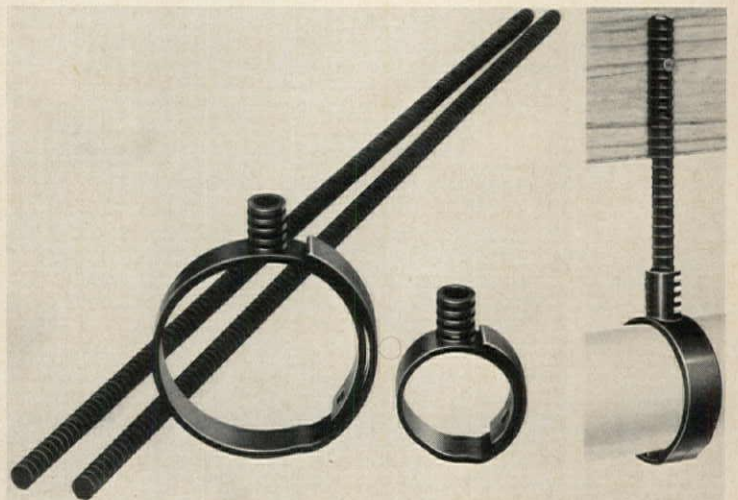


**Brick vent**, formerly available in stock sizes only up to 24" long, can now also be made in any length up to 12'. Extruded aluminum is anodized so it won't pit. Blade design keeps out water even during severe storms. Sylro Products, Merrick, N.Y.

*Circle 213 on Reader Service card*



**Pipe clamps and straps** come in 28 sizes for 1/2" to 2" EMT and 1/4" to 2" rigid pipe, tubing, or conduit. Each one- or two-hole device snap-locks on and holds fast for speedy installation. Cadmium plated. Fastway Fasteners, Lorain, Ohio. *Circle 214 on Reader Service card*



**Plastic pipe hanger** requires no nuts, bolts, or special tools, can be nailed directly to joist. Same rod fits either size—for 1 1/2" and 2" pipe or 3" and 4" pipe—and can be broken off to desired length. R&G Sloane, Sun Valley, Calif. *Circle 215 on Reader Service card*

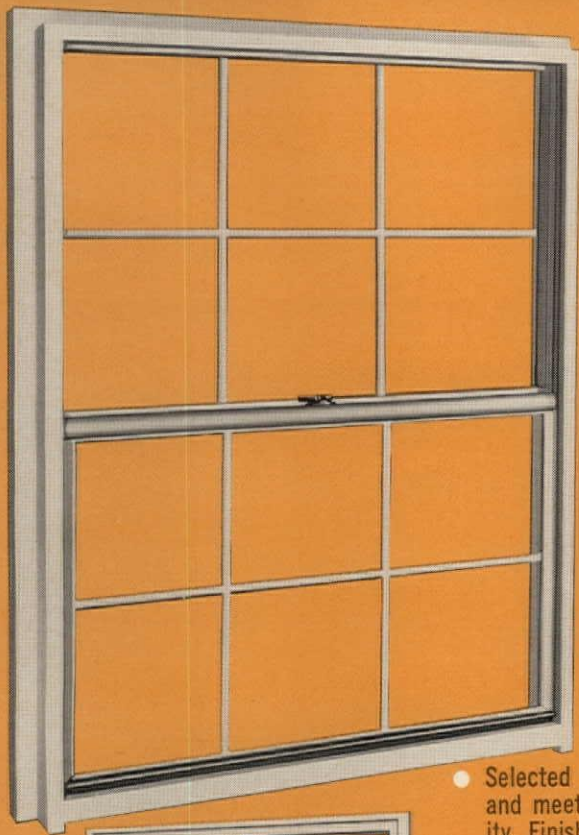
New products continued on p. 118



Malta

# VINALINE II

## WOOD/VINYL WINDOWS



Ask  
your  
dealer  
to  
see  
a  
working  
model.

### A quality, low cost window for factory-built mobile homes, double wides and apartments

- Selected wood frame, jamb, sill, casing and meeting rail give warmth and stability. Finished painted — ready to install.
- Rigid PVC vinyl moving sash slides on vinyl weatherstripping and is removable for cleaning. Excellent resistance to thermal transfer. No condensation or sweating of vinyl parts.
- Neat, trim appearance with greater glass to sash proportion. More light and ventilation.
- White vinyl sash stays white. No painting required unless you want color. Wood meeting rail provides sturdy base for locking hardware.
- Furnished complete assembled with sash lock and full width lift.
- Meets or exceeds performance requirements of commercial standards. Thoroughly tested. FHA approved.
- Screens supplied with windows at no extra cost. Optional storm panels also available.
- Available in range of sizes and several types; single hung, slider, bay, picture window combinations, studio and oriel.
- Vinaline II is priced to compete with aluminum. If you're tired mopping up after metal windows, here's the contemporary answer for an economical apartment, mobile home or conventional home window. It's big news — from Malta.

For catalog specifications, write Dept. F



APARTMENTS



DOUBLE WIDES



CONVENTIONAL

Malta

MANUFACTURING COMPANY, INC.  
261 Johnstown Road,  
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A Division of Philips Industries Inc.

## NEW PRODUCTS

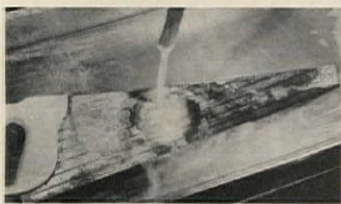
start on p. 110

### Coatings and adhesives



**Rust remover** brushes on and off, removing all rust from iron and steel without scraping, wire-brushing, or sandblasting. The gel sticks to anything, including vertical surfaces, leaves a protective film to help prevent future rust. Ace Chemical, Chicago.

Circle 216 on Reader Service card



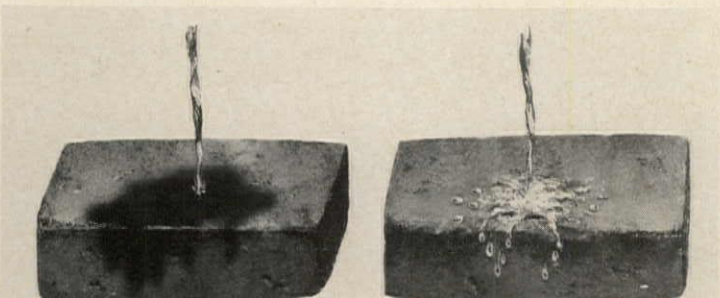
**Deck stain** is a decorative coating that will stand up to the heavy foot traffic and severe weathering on porches, patios, sun decks, etc. Available in three browns, three grays, a red, a green, redwood, black, and white. Samuel Cabot, Boston.

Circle 217 on Reader Service card



**Clear finish** brings out the beauty of natural wood and provides protection for it for ten years. It is a soft film that adheres to wood, won't become brittle or crack, peel, or blister. It screens the sun, is rainproof yet lets moisture escape. Flecto, Oakland, Calif.

Circle 218 on Reader Service card



**Masonry sealer** is a clear liquid that may be brushed or sprayed onto brick, stone, masonry, or concrete. It penetrates surface and expands to provide a completely waterproof seal. X-Pando, Long Island City, N.Y.

Circle 219 on Reader Service card



**Latex enamel** is durable and washable, comes in 14 colors, can be applied with brush, roller, or sprayer. It dries in under an hour, can be used on wood, masonry, drywall, plaster, and metal surfaces. National Paint & Varnish, Los Angeles.

Circle 220 on Reader Service card



**Two-part adhesive** consists of one coat that is factory-applied to panels or tiles, and another coat that is field-applied to walls or tile-ready floors. System is activated by pressure. Nonflammable, nontoxic. Parkwood, Wakefield, Mass.

Circle 221 on Reader Service card



**Adhesive products**, all available in 11-oz. and one-quart cartridges, include construction and panel adhesive, latex caulk and sealant, and tub and tile caulk. Cartridges have new, easily identifiable design. Franklin Glue, Columbus, Ohio.

Circle 222 on Reader Service card



**Vinyl coating** is a thick, clear liquid that can be brushed on right from the can to waterproof and protect wood, plastic, or glass surfaces. It can also be used as a dip for nuts and bolts, as a caulking, as an insulator, or as an adhesive. Okun, Jamaica, N.Y.

Circle 223 on Reader Service card



**Waterproofer**, used as an admixture in concrete and cement, retards cracking, resists acid and salt, and acts as a sealer. One gallon permanently waterproofs about 2,700 sq. ft. above or below grade, indoors or out. H&O Sales, Cedar Rapids, Ia.

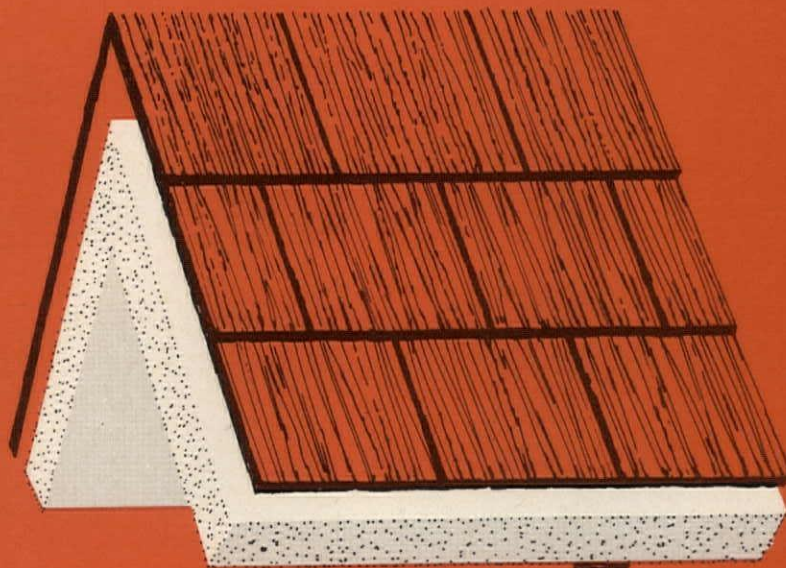
Circle 224 on Reader Service card

New products continued on p. 122

# Now you can install wood shingle roofs on homes people can live with

The new all-important ingredient is

**FLINTKOTE® Fire Block Gypsum Board.**



- 1** Now you can sell the styling of a wood shingle or shake roof—and the peace-of-mind of fire protection. Thanks to FLINTKOTE.
- 2** How? By first applying FLINTKOTE 1/2" Fire Block Gypsum Board over the roof rafters and under the roof sheathing.
- 3** And why not? You already provide 1 or 2 hour fire-rated wall and ceiling constructions with gypsum board products. Many building codes demand this fire resistance. Why not include vital protection from dangerous flying embers.
- 4** The Fire Block Gypsum Board membrane resists flames from burning through the roof to the inside and inside fire from feeding on the wood sheathing and wood shingles outside.
- 5** The inclusion of 1/2" FLINTKOTE Fire Block Gypsum Board could just make the difference between a sale and no sale to the growing number of fire-conscious home buyers.
- 6** Added benefits are a stronger roof with greater resistance to outside noise, dirt and nasty weather.

Write to:



**GYPSUM PRODUCTS DIVISION**

**REGIONAL SALES OFFICES:**

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- LOS ANGELES, CALIFORNIA 90054 • 1650 SOUTH ALAMEDA STREET
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**TAKE THIS HOUSE—TRY TO BURN IT DOWN. YOU WILL BE ONLY HALF SUCCESSFUL.**

In a very dramatic test\* an actual house was divided in two with a gypsum board "firewall" which extended from the ground floor to several feet above the roof.

The existing roof was replaced with new wood shingles. One half of the roof deck had 1/2" FLINTKOTE Fire Block Gypsum Board over the rafters under the roof; the other half did not.

Both halves of the roof were simultaneously set aflame with burning wood brands. On the typical roof construction, the fire consumed all shingles, burned through the roof and completely destroyed this part of the house. On the specially prepared roof, the fire burned all the roof shingles, but did not penetrate the Fire Block Gypsum Board. When the fuel on the roof was consumed, the fire died and the protected half of the house was still intact.

\*Gypsum Association Test, August 1969

# Tenant control

controls tenants

Keeps them in their place: your building. It's a fact that a long, happy tenancy needs individual apartment-by-apartment climate control. Fresh, clean air. At the right temperature and humidity.

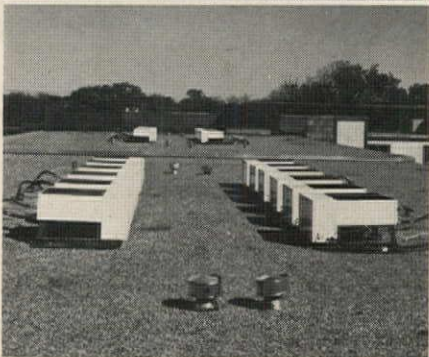
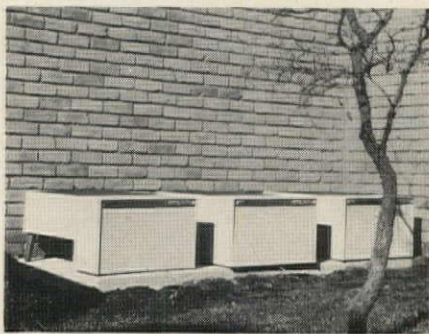
Lennox modular heating/cooling systems are built to fill individual comfort needs, tenant-controlled. And Lennox systems are not troublemakers. For tenants, or owners. They're quality-built, for long, dependable service, low maintenance.

Owner's costs are predictable, too: long-term guarantees cover critical components, long-term service contracts are available. And you have the added protection of single-source responsibility: Lennox.

Lennox gives you the widest choice. Any type, size, fuel. Indoor or out. Roof-mounted. Ground-level. Thru-the-wall. Combination or remote cooling. *And now: the new Lennox HS8 condensing unit — compact, low-silhouette easy-to-hide; with isolated compressor chamber for new quietness.*

Get the whole story on tenant control. Write Lennox Industries Inc., 832 S. 12th Avenue, Marshalltown, Iowa 50158.

**LENNOX**  
AIR CONDITIONING • HEATING



Top photo: Each tenant controls his own Lennox heating/cooling system at Brooktown Apartments, development of 400 garden-type apartments in Dallas suburb of Addison, Texas. New knee-high Lennox HS8 condensing units can hide easily behind future plantings. Developers: Brooktown Properties. General contractor: C.C. Blaylock Construction Co.

Bottom photo: Low, new-design Lennox cooling units hide on roof, provide individual tenant control for Mi Amigo Apartments, a 149-unit complex under construction in Dallas. Owners: George T. Connell and M.I. Harris, Jr. Building contractor: GTC Company.

# "Whether you're building multi-family or single family you'll want **Dialair** in the '70's."



**70000**  
the finest range hood ever. Features DIALAIR. Real beauty with hand finished Heliarc-welded seams complements all settings. Quiet "squirrel cage" dual blowers deliver 375 CFM, H.V.I. Cert. Extends 20½" over burner area. Greatest value, lowest price among comparable models. Beginning list \$87.



Broan's exclusive Solid State Control provides perfect fingertip selection of infinite air, speed and sound. DIALAIR is featured on all Broan 70000, 71000, 72000, 73000, 24000 and 25000 range hoods.



**72000**  
the first low-priced solid state hood. Has quality, economy and convenience features including DIALAIR. Delivers 200 CFM H.V.I. Cert. Priced below competitive 2-speed middle-of-the-line hoods. Beginning list \$44.



**71000**  
the most perfect ductfree hood with the same classic lines as the 70000 and DIALAIR, the 71000 will be a credit to your kitchens. 3-Filter system removes grease, odors and smoke. From \$12 to \$21 below competitive hoods. Beginning list \$84.



**73000**  
the greatest low-priced ductfree hood. This is the ductfree twin of the 72000 and also features DIALAIR. There is a 2-filter system. Beginning list \$52.

## Mr. Builder:

The "70's" with DIALAIR is the first complete line of Solid State range hoods. From the 70000, the finest hood ever made, to the 73000 there is a selection to fit all of your building needs at a price that's generally below our competition.

Providing you with the newest and finest in range hoods is part of our 37 year tradition. Service is another part. We deliver Broan hoods wherever and whenever you say. There are no costly delays.

Our range hoods are built for easy installation to eliminate time-consuming call backs. Your overhead costs are kept down, your customers kept happy.

We'd like to tell you more about Broan "70's" benefits for your building projects. Send this coupon to me for quick information.

From one quality builder to another . . .

**BROAN MFG. CO., INC.**

*Jack Brown*  
President

### BROAN MANUFACTURING CO., INC. Hartford, Wisconsin 53027

Dear Jack:

Please send me information about your new "70's" Series range hoods with DIALAIR Solid State Control.

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I am a  Builder  Contractor  Architect  
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**BROAN**  
the fresh air people

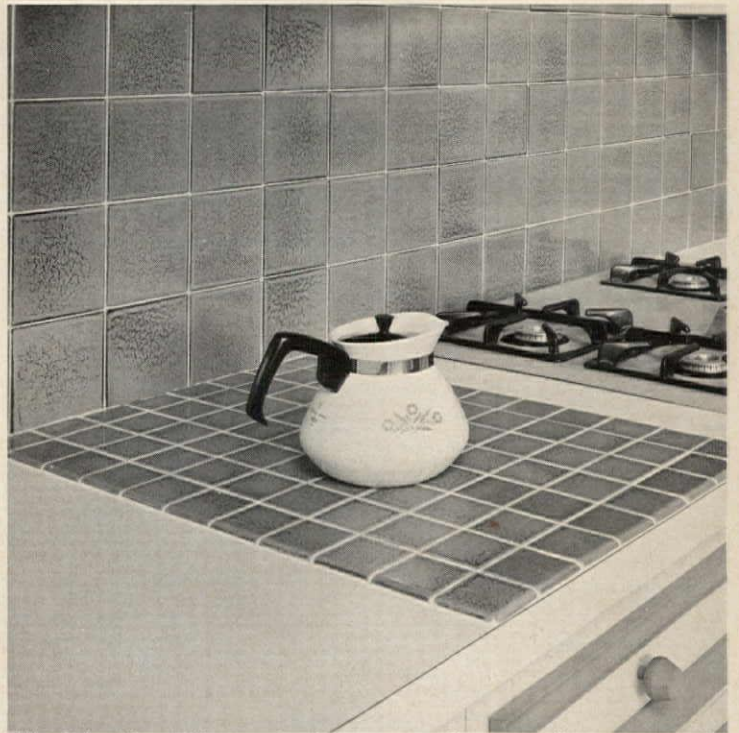
## NEW PRODUCTS

start on p. 110

### Kitchens



**Over/under range** has removable oven liners above and below that are continuously self-cleaning. Cook top lifts up and locks into position for cleaning. Oven doors lift off. Broiler is waist-high in lower oven. Tappan, Mansfield, Ohio. *Circle 225 on Reader Service card*



**Tile island** provides a safe place next to the stove where pots can be set down without injuring the countertopping. Tiles have a crinkled glaze, come 2" or 4" square in blue, green, tan, yellow, and white. U.S. Ceramic Tile, Canton, Ohio. *Circle 227 on Reader Service card*

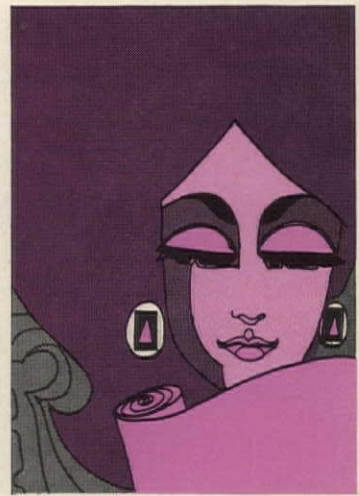


**Stacked-up laundry appliances** fit into just 27" of floor space. Washer features door that weighs laundry loads, presoak cycle, water-saving control. Automatic timer has adjustable sound level. Westinghouse, Pittsburgh, Pa. *Circle 226 on Reader Service card*



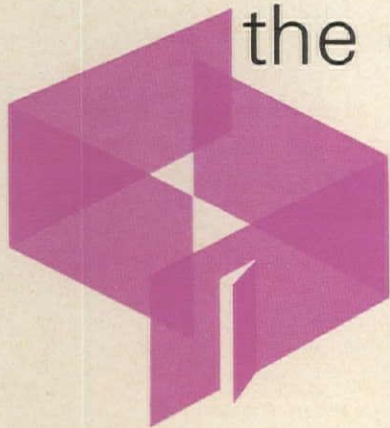
**Side-by-side refrigerator/freezer**, for smaller kitchens, offers 15-cu.-ft. of storage in only 30" of wall space. The frost-free freezer can hold up to 200 lbs. of frozen food. Optional automatic icemaker. Norge, Edison, N.J. *Circle 228 on Reader Service card*

New products continued on p. 127



Dimensions 1 is an all vinyl 5-year guaranteed wallcovering designed especially for contract installations. It's ideal for hotels, motels, hospitals, offices, and restaurants. By incorporating Imperial's vinyl technology with 100% AVISCO® rayon fabric backing, Imperial has created an outstanding collection of superbly designed richly textured wallcoverings in 153 distinctive patterns. Dimensions 1 is a Type 1 wallcovering as prescribed in Federal wallcovering product specifications CCC-W-408. It is strippable, scrubbable, scuff and stain resistant, and colorfast. It provides exceptional overall bactericidal qualities and is highly mildew resistant. Its 24-inch width assures easier and quicker hanging with less waste. No expensive adhesives are required for hanging Dimensions 1 . . . just a good wheat paste. Write today for Imperial's new full-color Dimensions 1 brochure.

# dimensions 1



the only contract  
vinyl fabric  
wallcovering  
guaranteed  
for five years

# imperial

Imperial Wallpaper Mill, Inc., Subsidiary of Imperial Paper Company, 3645 Warrensville Center Road, Cleveland, Ohio 44122

**Another Senco Breakthrough  
for the Construction Industry!**



## First 16d nailer light enough for true, single handed operation

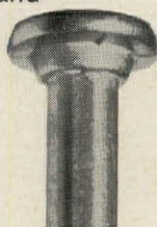
Although one-third lighter than the nearest competitive model, the powerful new SN-III Senco-Nailer easily drives up to a 16d Senco-Nail in heavy framing operations, roof decking, subflooring, sheathing.

The SN-III weighs only 7 $\frac{5}{8}$  lbs. It's perfectly balanced for one-handed, virtually fatigue free operation on the site. No auxiliary handles or clumsy counter-balances needed. Exclusive Senco-Matic™ firing is adjustable up to 4 nails per sec. with one trigger squeeze. Tilted 30° magazine gives maximum maneuverability for toenailing studs, nailing in corners, and other "tight squeeze" situations.

The SN-III nailer drives a full, 3 $\frac{1}{2}$ " 16d Senco-Nail™ engineered specifically for power nailing. Because it's power driven, bending is not a factor. Thus, the Senco-Nail can be more slender than the ordinary common nail — for minimized wood splitting and sure holding power. Exclusive factory Sencote™ increases grip many times over plain fasteners.

For more information on this significant new breakthrough, and how it can cut your construction time and cost, write Senco Products, Inc., Cincinnati, Ohio 45244, Dept. 109.

See you at Booth No. 110  
Apt. Builder/Developer Conf. & Expo.

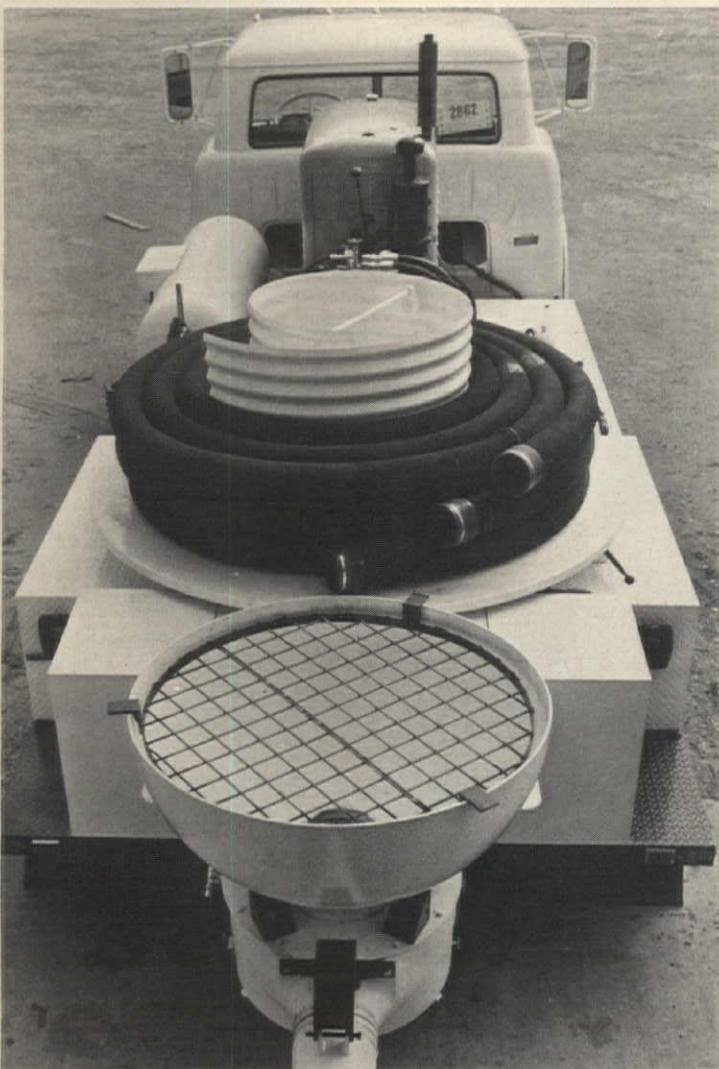


**Senco** 

**Senco . . . where the  
Big Ideas in fastening  
come from**



**Tools and equipment**



**High-volume concrete pump** is truck-mounted, can be used at difficult locations. A power reel holds the 200'-long hose, which can also be special ordered up to 750' long. Geared to handle toughest mixes. ECP, Oklahoma City, Okla. *Circle 229 on Reader Service card*



**Power sweeper** is equipped with hydrostatic transmission that lets operator use one pedal to go forward or backward. Main broom operates at a fixed rpm at any travel speed. Broom pressure is adjustable. American-Lincoln, Toledo, Ohio. *Circle 230 on Reader Service card*



**Stairs With Flair**

American Panel Products introduces a glamorous wood and steel stair in straight or spiral form with custom appearance and quality—in a completely pre-finished and economical package. Components quickly bolt together and require no welding. Handsome wood treads and handrail are factory pre-finished oak. (Composition available for carpeting.) Steel finished in matte black. Units are available in a variety of sizes and prices to fit your specifications. For further information write direct to

**American Panel Products, Inc.**  
1735 Holmes Road, Ypsilanti, Michigan 48197

Circle 138 on Reader Service card

**New, Needed . . . for Wood Decking**  
**Cabot's DECKING STAINS**



The popularity of wood decking, in demand now as never before for porches, sun decks, patios, etc., requires a finish both durable and decorative. Cabot's Decking Stains preserve, protect, and beautify wood surfaces under difficult conditions.

- Economical; easy to apply and maintain.
- Resists cracking, peeling, blistering.
- Surface weathers gracefully.
- Will not rub off or track off.
- Alcohol and detergent resistant.
- Suitable for all types of wood.

Available in eleven colors: Bark Brown, Smoke Gray, Chelsea Gray, October Brown, Forest Green, Farallon Gray, Presidio Red, Cordovan, Redwood, Black, and White.

**SAMUEL CABOT INC.**

330 S. Terminal Trust Bldg.,  
Boston, Mass. 02210  
Please send color card and information on Cabot's Decking Stains.

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*New products continued on p. 128*

# custom floors of genuine TEAK at unaccustomed low prices!

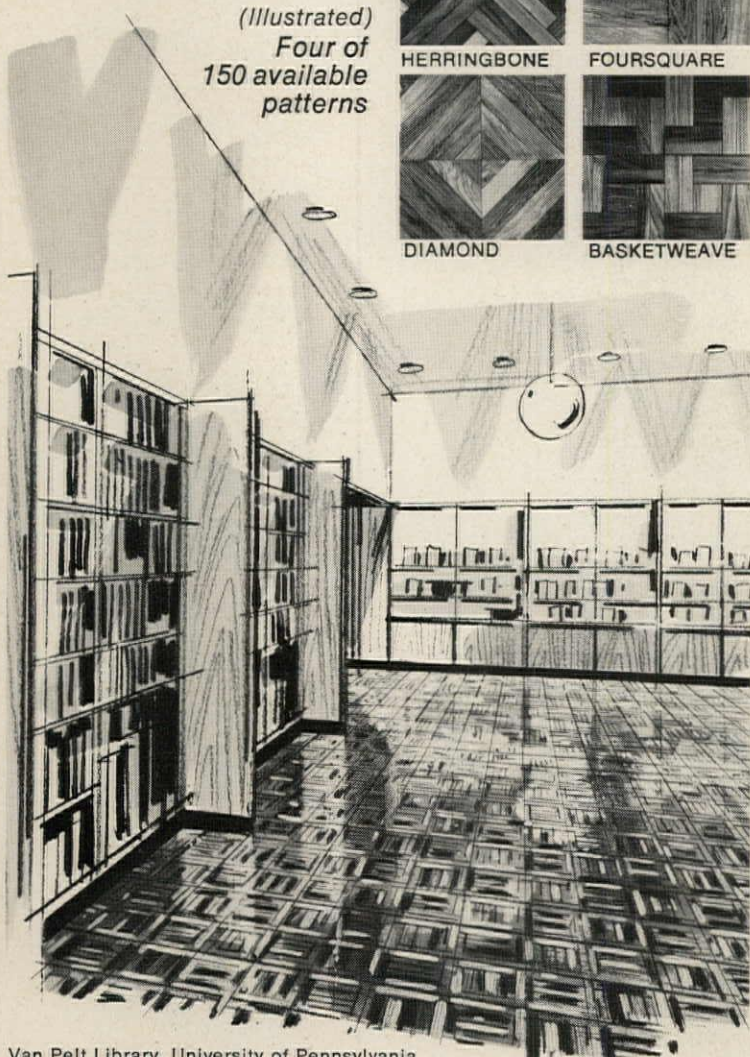
Thai-Teak makes a prestige floor with rich, full lifetime beauty that sells itself. It costs no more than many custom vinyls, many wood floors, many wall-to-wall carpetings . . . in large installations.

Competitively priced quality that is unique and praiseworthy. Installation is quick, easy, precise and maintained at low cost. Keeps labor prices right down on the floor.


Thai-Teak resists termites, rot, decay. It helps you make more permanently satisfied clients and customers. Isn't that what you really want?

Send for **FREE brochures**  
on 150 patterns  
and technical data.

(Illustrated)  
Four of  
150 available  
patterns



Van Pelt Library, University of Pennsylvania  
Thai-Teak Cross Directional Swirl Pattern  
Architects: Harbeson, Hough, Livingston & Larson

SEE OUR CATALOG IN SWEET'S 



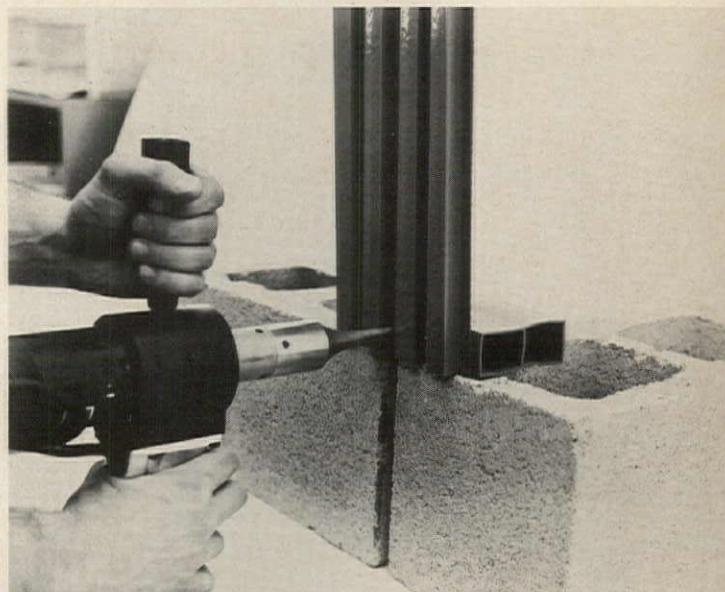
GENUINE IMPORTED  
**Thai-TEAK**™ Product of  
PARQUETRY FLOORING **BANGKOK INDUSTRIES, Inc.**

1545 W. Passyunk Ave., Phila., Pa. 19145 • (215) DE 4-1500

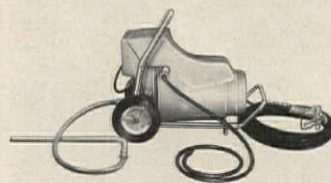
## NEW PRODUCTS

start on p. 110

### Tools and equipment



**Spot welder** inserts metal into plastic, stakes plastic to metal, and welds plastic to plastic with split-second bursts of ultrasonic energy. Pistol grip tool weighs just six lbs., is 20" long. Branson Sonic Power, Danbury, Conn. *Circle 231 on Reader Service card*



**Airless sprayer**, light in weight and only 14½" wide, can be carried and used by one man. The ¾-hp motor operates on 115-v current, emits only a mechanical hum as it drives a fluid pump that delivers 1/3 gpm at pressures to 3,000 psi. Graco, Minneapolis. *Circle 232 on Reader Service card*



**Soil impactor**, mounted on a backhoe, can also be used for backfilling and leveling as well as compacting all densities of soil, including clay. Two pads act like pistons, deliver 2,800 impacts per min. Construction Technology, Arlington, Tex. *Circle 233 on Reader Service card*

New products continued on p. 132

In kitchen cabinets  
what usually wears out first?  
The finish!



But *AristOKraft*® cabinets have tough, low-maintenance finish that protects and enhances fine furniture woods for long-lasting beauty. Put lemon juice, vinegar, alcohol on the finish for 24 hours. Wipe clean with no stain, mark or break in surface. Test twice as long as Certified Cabinet standards. So tough you can wash it with lacquer thinner. Another extra value to make selling easier for you.

**Direct to you**

from warehouse  
in your area  
to speed delivery

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**New Warehouse**

**NASHVILLE REGION**

2316 Clifton Road  
Nashville, Tenn. 37209  
Telephone: (615) 292-2937

If your area is not listed, write to

**United Cabinet Corp.**  
Jasper, Indiana 47546





# Why I lost my nerve after 20 years in the business.

"I've always been a pro. Respected. After all, breaking and entering isn't something you pick up overnight. It takes years to learn the ins and outs.

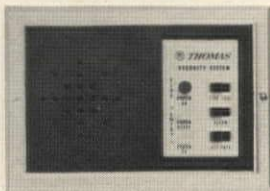
Lately, it's been mostly outs. Jumping off porches. Leaping hedges. Scrambling. It's like being an amateur again.

All because some smart builders have installed Thomas Security Systems in their newest homes.

Have you seen or heard one? It's something else. If you break the circuit, lights flash on the roof, sirens go off inside and outside the home. It's enough to make a man want to retire."

**A Thomas Home Security System** will make any prowler a stay-at-home. A package includes smoke and fire detectors, flashing lights and Thomas audible signals similar to the big ones we sell to industry.

Get more information about the fire and burglar alarm system that



offers \$1,000 worth of buyer appeal and sells for less than \$190 installed. Write Thomas Industries,\* Convenience Products, 207 E. Broadway, Louisville, Kentucky 40202.



**THOMAS**  
INDUSTRIES

\*The same Thomas Industries that makes fashionable residential lighting, table lamps, intercoms, built-in vacuum systems and many other convenience products for the home and the home-building industry.

yes...

# House & Home

THE MARKETING AND MANAGEMENT PUBLICATION OF HOUSING AND LIGHT CONSTRUCTION

## AN OPEN LETTER

TO THE PRESIDENT  
THE CONGRESS  
THE SECRETARY  
OF HUD

**G**ENTLEMEN:  
In the face of the  
worst housing crisis  
this country has seen

since the 1940s, the Department of Housing and Urban Development has put forth a remedy—Operation Breakthrough—that may well do more harm than good. The **real** problems have

*continued on page 51*

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Heavy demand for the February issue of **HOUSE & HOME** has made it necessary to reprint the 20-page editorial analysis of the real problems confronting Operation Breakthrough.

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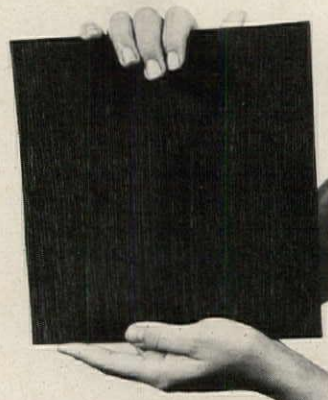
### NEW PRODUCTS

*start on p. 110*

#### Interiors



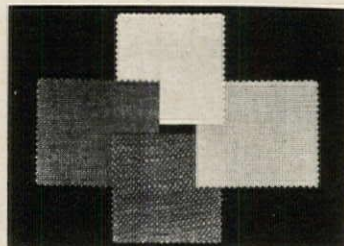
**Wallpaper panel**, set off by decorative columns, forms a dramatic backdrop for any type of furniture. This particular pattern of birds and flowers gives the appearance of hand-embroidery on old linen. Van Luit, Los Angeles. *Circle 237 on Reader Service card*



**Aluminum panels** have wood-grained finish. Designed for use in mobile and modular homes as exterior and interior wall panels, they can also be used as shower walls, soffits, etc. Special adhesive bonds aluminum sheet to plywood. AMAX, Riverside, Calif. *Circle 238 on Reader Service card*



**Geometric paper** is designed to appeal to young people. Called "Hang-Up," it is a maze of interlocking colors and shapes. It is made of bonded Dacron and cellulose fibers that are vinyl impregnated, so it will strip off in one piece. Birge, Buffalo, N.Y. *Circle 239 in Reader Service card*



**Woven wallcoverings** are natural materials laminated to backings. Shown here are some of the many burlaps which range from loose to very tightly woven and come in an extensive range of more than 40 colors. Vicretex, L.E. Carpenter, New York City. *Circle 240 on Reader Service card*

*New products continued on p. 134*



**MORGAN WIGHTMAN** BUILDING MATERIALS WHOLESALE

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In an effort to acquaint more builders and contractors with Morgan-Wightman Supply Company, we are offering a 5% discount to new customers. This discount will apply to the **FIRST ORDER ONLY** and it must amount to \$300.00 or more. (Example: If your first order amounts to \$500.00, it would cost you \$475.00 . . . a saving of \$25.00.)

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## Positions Available



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JOSEPH C. GRASSO, V.P. OPERATIONS  
MODULAR HOUSING SYSTEMS INC.  
NORTHUMBERLAND, PENNA. 17857

## NEW PRODUCTS

start on p. 110

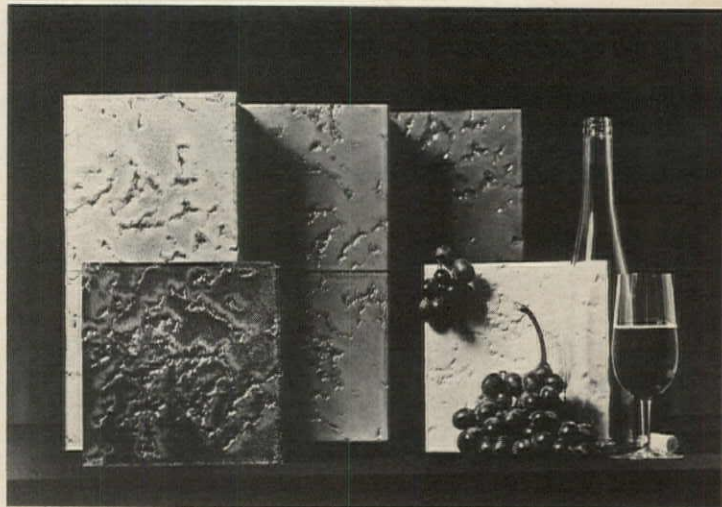
### Interiors



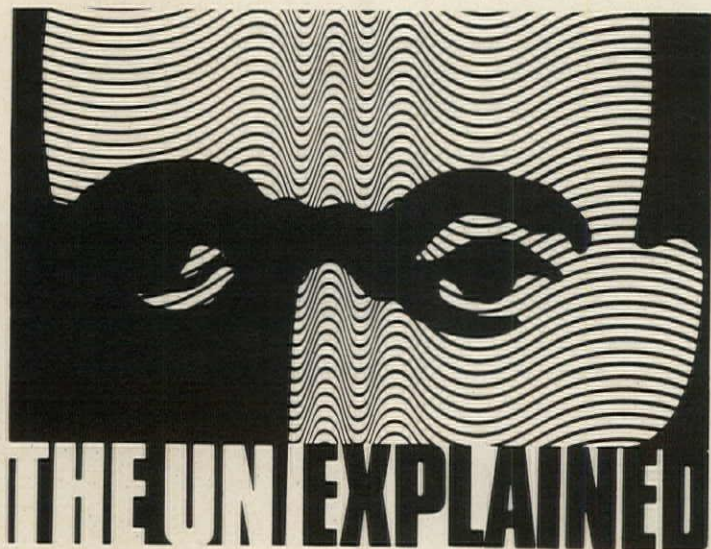
**Vinyl wallpapers**, ideal for small eating areas like this one, are completely scrubbable and stainproof, resist scuffs and marks from chair backs. Shown are a bold stripe and a nondirectional floral combined. Imperial Wallpaper, Cleveland, Ohio. *Circle 234 on Reader Service card*



**Venetian mural** is handprinted and pretrimmed. It comes with enough additional ground to cover a total wall area of about 18' 8". Part of a line of 14 panoramic murals on scrubbable vinyl papers. James Seeman Studios, Garden City Park, N.Y. *Circle 235 on Reader Service card*



**Architectural tiles** have a glazed surface that is appropriate for high-traffic areas like stairwells and corridors. The color irregularities give a dimensional look. Available 8" or 12" square, and 2" or 4" thick. Glen-Gery, Reading, Pa. *Circle 236 on Reader Service card*



## NBC-TV Friday, April 3

(Consult your local listings.)

Arthur C. Clarke, author of "2001," comments. Startling probes include the mysteries of space, hypnosis, ESP, the human brain, animal communications, plant behavior and other unexplained phenomena.

An Encyclopaedia Britannica Special, sponsored by Weyerhaeuser Company.



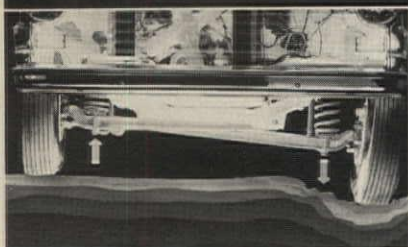
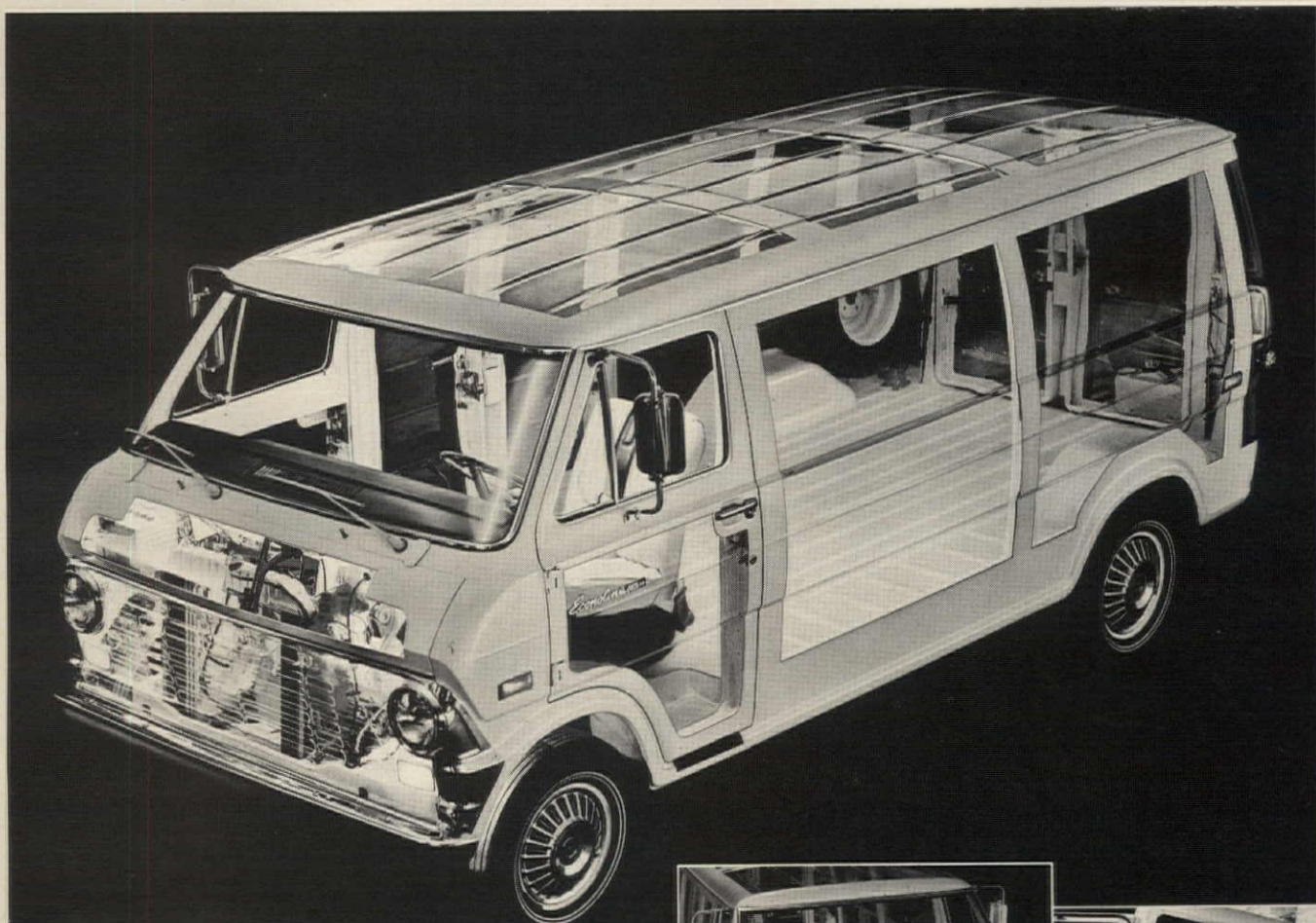
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# You'll see better ideas clear through Ford's Econoline

Small wonder it outsells all other vans



**Twin-I-Beam ride.** The independent front suspension made famous by Ford pickups: Twin-I-Beam. Two I-beam axles for strength... big coil springs for easy ride. Twin-I-Beam gives you greater stability, less wind wander, and a better ride. Only Ford has it.



**"Walk-thru" to rear.** Because the engine is forward out of the way, the driver can step from his seat into the load area and exit through side or rear doors. The loadspace is not only bigger than in older vans, it's easier to reach. See all the better ideas in the best selling van at your Ford dealer's.



**Outside service center.** Just raise the hood, and all these service points are at hand: oil, water, battery, windshield-washer water, wiper motor, brake master cylinder, voltage regulator. Ford's better idea vans make everything you do easier to do.



**Greater payload than ever before.** Now Ford vans can take on loads that vans never before were designed to take. Choose from three Econoline series and two body lengths. Power choices include two economical Sixes and a top-performance 302-cu. in. V-8.

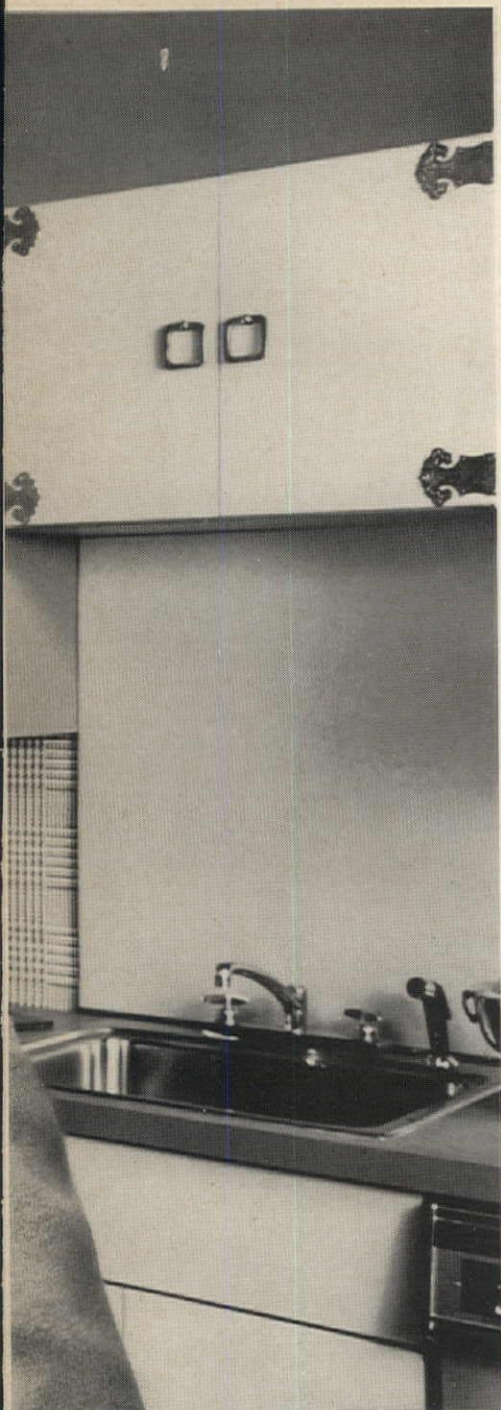
## FORD ECONOLINE VANS





**What's Myra Waldo  
doing in the kitchen  
with Collins & Aikman?**

**She's cooking up a Gourmet Collection  
of Kitchen Carpets in spice colors. Just look  
at the recipe! And start figuring  
on helping yourself to a generous portion.**



## The Carpet

It's a new breed of kitchen-utility carpet created by the Painter Carpet Division of Collins & Aikman. It doesn't even *look* like a kitchen carpet. With all its good looks it has all the essential qualities to perform not only in the kitchen, but all around the house.

## Coordinated with Formica®

brand laminates

Collins & Aikman has coordinated the carpet colors with America's best-selling kitchen surfaces, based on the color authority of FORMICA® laminated plastics. And what a selling opportunity—every FORMICA laminate customer becomes an instant prospect for a coordinated Painter carpet!

## The Colors

Collins & Aikman has made the most of the piece-dye and cross-piece-dye qualities of Creslan® acrylic fiber. The results speak for themselves in luxurious tweed and print patterns, in a mouth-watering array of gourmet colorations. And, to this, add the outstanding resilience and easy-care properties of Creslan.

## The Promotion

1. A potent TV spot schedule—designed to create direct, instant retail traffic. The deluxe color TV commercial stars MYRA WALDO, world-famous food and travel expert, in her own gourmet kitchen.
2. Collins & Aikman offers a fabulous self-selection retail-floor display. It enables the customer to coordinate carpet colors with her own kitchen surface colors. Irresistible appeal—great selling tool.
3. A complete retail kit containing all the elements that make it easy and profitable for you to cook up your own tie-in excitement.



**MYRA WALDO** invites you to join her in the Collins & Aikman kitchen. You'll come out with one of the tastiest promotions ever served to a carpet retailer. Yum!

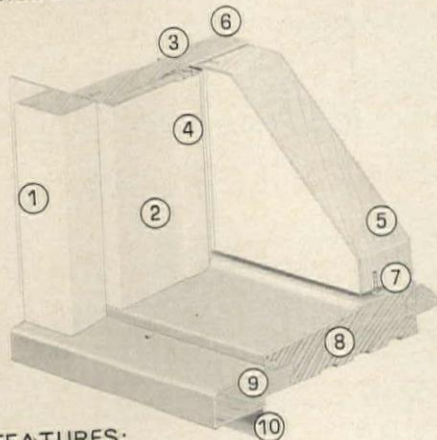
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Creslan is a product of American Cyanamid Company, Wayne, New Jersey.



## Dura-Mor . . . the care-free entranceway

New Dura-Mor Entranceways keep saying "welcome!" . . . vinyl exteriors won't need painting for 20 years! Select from many custom designs—insulated sidelights or pattern glass to match. Write for free full-color catalog. Or see Sweet's Architectural file 17c/MOR or Sweet's Light Construction file 5b/MOR.



### FEATURES:

- ① Rigid vinyl encased trim.
- ② Rigid vinyl clad wood stop.
- ③ Permanent bar magnet for tight weather seal.
- ④ Magnet protected in duo-durometer bellows.
- ⑤ Insulated door and glass.
- ⑥ Interior jamb not clad, permits any finish.
- ⑦ Double, self-adjusting weatherstrip.
- ⑧ Rigid vinyl basic sill.
- ⑨ Continuous rigid vinyl clad sill band.
- ⑩ Trim fins below sill, at sides and head.



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## NEW LITERATURE

For copies of free literature, circle the indicated number on the Reader Service card p. 125

**LOW-INCOME-HOUSING MANUAL.** The "Retail Lumbermen's Guide to Low and Moderate Income Family Housing" outlines the pros and cons of about 30 government-assisted housing programs and points out where profit potentials exist, and where they do not. Topics covered: how to choose a program, how to start projects, equity requirements and risks, types of sale or rental and turn-key programs, and the impact of taxes on housing developments. The guide was prepared last year by John M. Dickerman, formerly executive vice president (till 1963) of NAHB, and now a consultant. It is available at \$5 per copy from The Retail Lumber Dealers Foundation, 339 East Avenue, Rochester, N.Y. 14604.

**SOUND CONTROL/FIRE RESISTANCE.** Current design data give sound transmission loss test results and fire ratings on 266 wall, ceiling, column, beam, and roof deck assemblies that use gypsum board or gypsum plaster. Sound transmission classes range up to 60 or 64, fire resistance ratings given are up to four hours. The more than 300 illustrations include descriptions and diagrams of assemblies. Gypsum Assn., Chicago. Circle 301 on Reader Service card

**PLAYGROUND EQUIPMENT.** Included in a 40-page catalog of climbing equipment are photos and drawings of the ever-familiar "turtle"—but used in imaginative ways to create crow's nests, playhouses, flying saucers, space stations, and Martian outposts. Shown in combination with the shell-like cast aluminum forms are concrete sand and water canals, tree-like concrete forms, hexagonal aluminum climbing blocks, circular ladders, and chain-link climbers much like cargo nets. About 50 different combinations are illustrated for pre- and elementary-school children. Also included: listings of baseball and soccer backstops, information on equipment assembly, installation instructions. Playground Corporation of America, Long Island City, N.Y. Circle 302 on Reader Service card

**SAFETY STAIR TREADS.** A color chart displays 12 decorator hues available in an epoxy-filled aluminum tread that features an abrasive surface that runs right over the front edge of the tread for a smooth look. American Abrasive Metals, Irvington, N.J. Circle 303 on Reader Service card

**CLUSTER PLANNING.** "Planning for Space" is an introduction to cluster planning, and its purpose is to help educate anyone who has a say in planning, developing, or controlling land in any way that could affect future neighborhood environments. After discussing and illustrating the basic concept of cluster planning with drawings and photographs of actual projects, the booklet goes on to give general guidelines on overall planning, circulation, open spaces, grading and drainage, utilities, and individual site planning. Available at \$2.50 per copy from Boyce P. Price, executive vice president, American Wood Council, 5454 Wisconsin Ave., Chevy Chase, Md. 20015

**WHIRLPOOL BATHING.** Four-color leaflets discuss three types of whirlpool bath installations: in pools, in standard-sized tubs, and as a family-sized spa that is 8' long, 3' deep, and just big enough for two or three people. Photos show the sculptured fiberglass tubs in five colors and in various types of installations. Drawings illustrate installation instructions. Price lists included. Jacuzzi Research, Berkeley, Calif. Circle 305 on Reader Service card

**ELEGANT FITTINGS.** Four-color photographs illustrate a brochure on high-style single-lever faucets for tubs and showers. Part of a collection with a Spanish flavor, they feature intricately carved designs, some with crystal handles. Artistic Brass, Los Angeles. Circle 306 on Reader Service card

**VENT SILENCERS.** A sketch-illustrated brochure describes how to control noise in various types of air-transfer systems. The three types of silencers covered are: 1) multipurpose units for permanent installation in walls, ceilings, and doors, 2) those designed to ventilate the shafts in apartment buildings and hotels that lead from kitchens and baths, and 3) those that work from room to room or room to corridor or with movable partitions. Suggested specifications and noise reduction charts are provided. Industrial Acoustics, Bronx, N.Y. Circle 307 on Reader Service card

**FOLDING STAIRWAYS.** Two types of disappearing stairways are described: one that is actuated by counterweights, and one that has a balanced spring assembly. Illustrations and installation instructions included. Precision Parts, Nashville, Tenn. Circle 308 on Reader Service card

**PLYWOOD IN APARTMENTS.** Technical file book tells how to build better for less by using plywood for apartment subfloors, wall sheathing, and roof decking. Photos show workmen installing plywood decking, panels, etc., and some exterior and interior shots of actual installations. Drawings show several types of construction. Charts show sound and fire ratings. Grade-use guides included. American Plywood Assn., Tacoma, Wash. Circle 309 on Reader Service card

**METAL-CLAD DOORS.** Thirty styles of entrance doors, paneled or plain and with or without lights, are depicted in a brochure on a new line of pre-hung units. Features such as warp resistance, insulation, and weatherstripping are discussed. Cross-section drawings show their construction. Berry Div., Stanley, Birmingham, Mich. Circle 310 on Reader Service card

**REDWOOD LUMBER.** Grades, grains, and uses are described and illustrated in a leaflet that includes four-color close-up shots of five types of redwood for easy identification and comparison. California Redwood Assn., San Francisco. Circle 311 on Reader Service card

### Annual H&H indexes

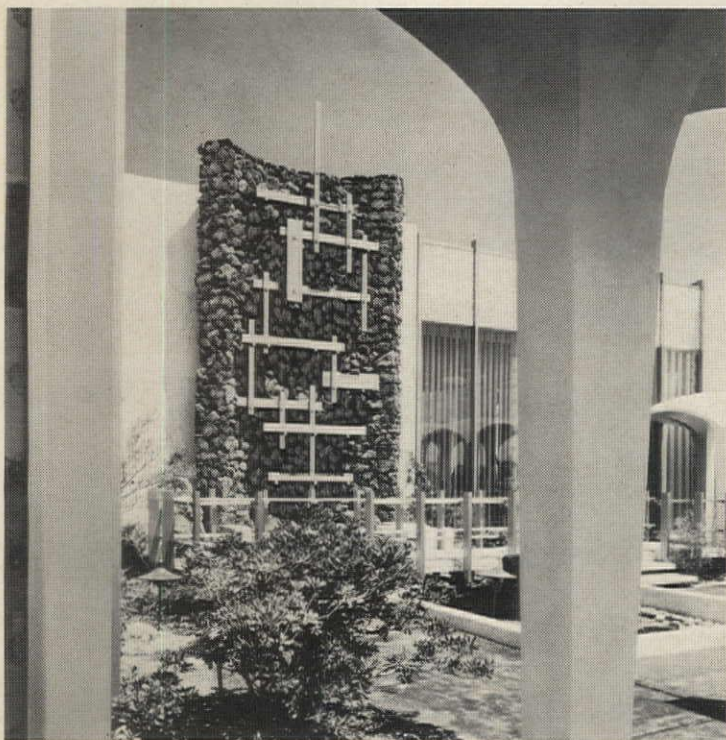
Copies of House & Home's editorial indexes for 1965, 1966, 1967 and 1968 are still available. Each is an eight-page, cross-referenced listing of subjects covered that year by this magazine. To get copies (there's no charge) write to: Reader Service Dept., House & Home, 330 West 42nd St., New York, N.Y. 10036.

**HAND-GLAZED TILES.** More than 75 different ceramic-wall-tile patterns, textures, and hues are shown in a four-color brochure. The new line includes striking geometric, abstract, and floral patterns in unusual combinations of colors and glazes. Villeroy & Boch, c/o Amsterdam, New York City. Circle 313 on Reader Service card

**OFFICE FURNITURE.** An eight-page color sampler shows the wide range of decorator colors available in finishes and fabrics for a line of contemporary office furniture. Included: two woods, laminates for desk tops, vinyl and textured fabric upholsteries, metal finish paints, plus smoked, mirrored, and antiqued metal trims. General Fireproofing, Youngstown, Ohio. Circle 314 on Reader Service card

New literature continued on p. 140

Whether your job is the "usual" or "unusual", Featherock® lightweight stone veneer can give your customers that special effect for little or no extra cost!



1.

You can dress up your new construction with the rugged enduring beauty of stone by spending about \$1.00 more per square foot than you do for face brick. In-the-wall costs vary by area, but one ton of FEATHEROCK Veneer equals the coverage of five tons of other stone. Special footings are unnecessary, and the light weight along with flat back make FEATHEROCK go up faster. Acoustical and insulation values are plus benefits.

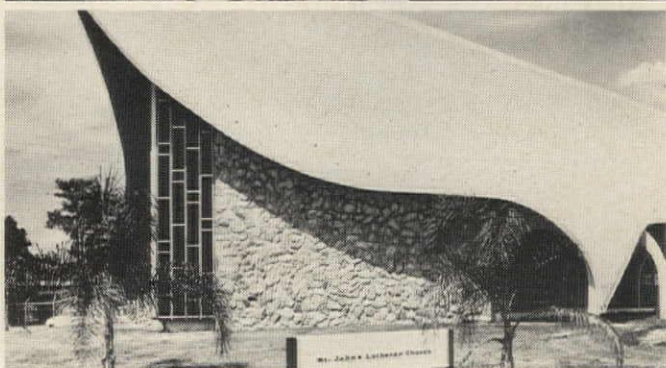
Send in the coupon opposite to get more information on how FEATHEROCK can help you give your client that extra special look at a cost that will please him.



WRITE TO  
**featherock**®, INC.  
 6331 HOLLYWOOD BOULEVARD  
 LOS ANGELES, CALIFORNIA 90028



2.



3.

1. Exterior using Featherock sawed back charcoal veneer. Metropolitan Savings and Loan, Dallas, Texas.
2. Interior stone ceiling using gray Featherock veneer. Cave des Roys, private club, Beverly Hills, California
3. Exterior facing using Featherock veneer, sawed back rubble in charcoal and silver gray. St. John's Lutheran Church, Tampa, Florida.

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# That hammer is costing you money!

## Let Duo-Fast Automatic Nailers show you how to cut costs

You get your nailing jobs done 5 to 6 times faster when you use Duo-Fast Staplers and Nailers instead of those high-cost hammers . . . and time saved is money earned.

**The heavy-duty CN-137 Nailer** drives all nail sizes, 6d common thru 16d sinkers, without changing the tool in any way. A top favorite with builders.

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**The S-763 Stapler Nailer** drives heavy, galvanized, FHA-approved staples up to 2" long. Very popular for nailing sheathing and plywood.

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CN-137 makes fast work of toe-nailing



Staple Nailer anchors down plywood roof deck



Fast on-site component construction with CN-137



Roofing Nailer speeds shingling jobs

## NEW LITERATURE

starts on p. 138

**WALL PANELS.** Three full-color brochures show idea rooms using hardboard panels in decorator colors as well as wood grains and colors. Masonite, Chicago. *Circle 312 on Reader Service card*

**CEILINGS.** Selector sheets depict decorative, acoustical, and suspended-ceiling systems and tiles in four-color installation shots. Close-ups show the various textures available. Johns-Manville, New York City. *Circle 315 on Reader Service card*

**TROWEL TRADES TOOLS.** More than 1,200 traditional and new tools for use on brick, block, and stone masonry, cement finishing, plastering, dry-wall hanging and finishing, lathing, and tile setting are included in a 64-page 1970 catalog. Among the new tools featured: a power troweler, a portable air compressor, a flexible drywall tape for corners. Goldblatt Tool, Kansas City, Kans. *Circle 316 on Reader Service card*

**FIBERGLASS GARAGE DOORS.** Drawings and color samples show the various types, shades, finishes, and uses for a line of fiberglass and aluminum overhead garage doors. Baker-Aldor-Francis, Hialeah, Fla. *Circle 317 on Reader Service card*

**SPRAY-ON FIREPROOFING.** A technical bulletin describes a blend of mineral fibers and binders that can be sprayed directly on long-span steel structures. Advantages discussed are thermal insulation, acoustical absorption, corrosion protection, and ease of application, as well as fire ratings. U.S. Mineral Products, Stanhope, N.J. *Circle 318 on Reader Service card*

**VINYL-CLAD DOORS.** An actual sample of the wood-grained vinyl facing for doors is included in a brochure that also describes and shows the patented locking system. Step-by-step photographs illustrate the installation instructions for the pre-machined units. R.F. Nikkel, Sacramento, Calif. *Circle 319 on Reader Service card*

**COMMERCIAL LIGHTING FIXTURES.** More than 150 fluorescent and incandescent protected fixtures are detailed in a specifications catalog. Covered are heavy-duty vapor-tight fixtures, explosion proof units, luminaires, and all-plastic models. Thomas, Louisville, Ky. *Circle 320 on Reader Service card*

**DRAPERY HARDWARE.** A 140-page catalog describes and illustrates every possible type of rod, bracket, ring, pull, and accessory for any type of curtain or drape. Included are installation tips for wall and ceiling mounts, measuring instructions, and drawings and photographs of various types of window coverings, such as cafe curtains, pleated and accordion-fold drapes, and mobile home double-track treatments. Color photos show most of the 38 finishes that include clear and flecked plastic, a dozen or so decorator colors, several black and/or white combinations, a number of metals including pewter, bronze, and gold, plus four wood grains. Kirsch, Sturgis, Mich. *Circle 321 on Reader Service card*

**ROOF DECK SYSTEMS.** Such properties as fire and water resistance, strength, insulation, light reflectance, and appearance are described in a booklet about a system that combines chemically treated mineralized wood fibers with Portland cement. Systems include planks, tiles, or form-boards. W. R. Grace, Cambridge, Mass. *Circle 322 on Reader Service card*

**RED CEDAR SIDINGS.** Four-color photographs show exterior and interior uses of red cedar in apartments and townhouses. Both saw-textured and smooth siding and paneling are illustrated Western Red Cedar Lumber Assn., Portland, Ore. *Circle 323 on Reader Service card*

# "I build what people want. What they want is Total Electric."



Georgia builder-developer Jim Bible rented his first electrically heated apartments before the roof was up. Since then, he has built over a thousand more.

"As a builder," Jim Bible tells you, "I have a very simple philosophy: When people see what they want, they buy it."

"Which is exactly why I've been building Total Electric apartments since 1963. Total Electric units have the quality features that people like, the features that mean quick rentals.

"The big benefit, of course, is the pure comfort of electric heat: flameless, draft-free and clean, with temperature controls you can set separately in each

apartment. And there's no fuss and bother with maintenance and repairs—which I like as much as my tenants do.

"Another big selling plus with Total Electric is convenience—with kitchen, laundry and appliances all planned for good household organization and maximum efficiency.

"Together with electric heat, it gives you quite a selling package. It's what people want."

Jim Bible knows what he's talking

about. To date, he has put up 1,500 Total Electric apartments in four Georgia cities, with plans underway for 750 more. (His own apartment is Total Electric, too.)

Find out how Total Electric construction and flameless electric heat can give you better-quality, faster-selling apartments and homes. Start now by getting all the facts from your electric utility company. They'll be glad to work closely with you.



...where everything's electric,  
including the heat.

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