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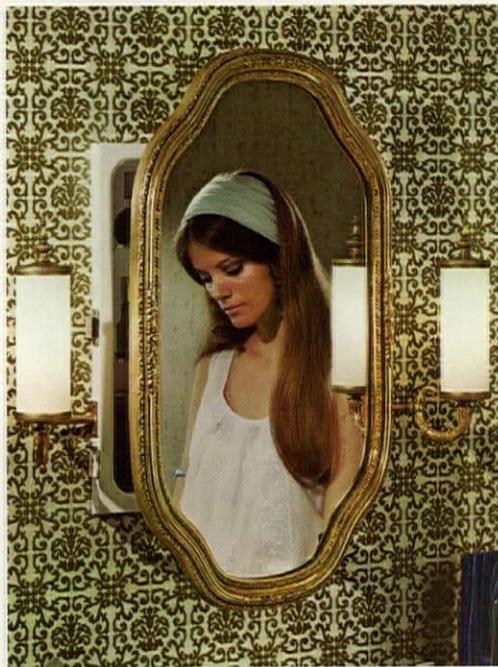
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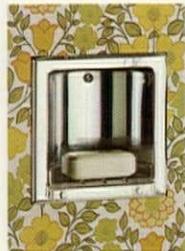
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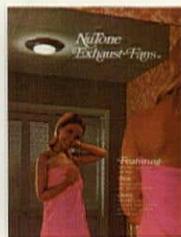
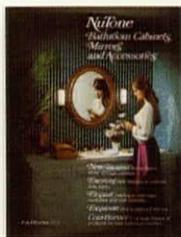
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FEATURES

- 41 NABM's industrial housing glossary—an editorial
Let's get our terms straight so we all know what we're talking about
- 42 Is this operation the ultimate in industrialized building?
A conventional builder from Texas may have the most efficient system ever
- 51 Project Portfolio 3
An adult community with features of both single and multifamily housing
- 59 How to keep more of your profits
Two lawyers explain the intricacies of a stock-for-stock deal
- 62 How come these developers buy factory-built houses?
Because, they say, sectionals lead to more profit, fewer frustrations

NEWS

- 4 Housing and the Nixon policy: the threat of mandatory controls on interest
- 8 Housing and the elections: Cleveland votes itself a new chance
- 10 Housing in Europe: more Levittowns for the Continent
- 12 A cascade of red ink—or, the troubles of Boise in building
- 16 Sears Roebuck edges halfway into housing via a marketing venture
- 18 Viejo's mission: it is to set sales records, even in soggy California market
- 20 Forcing plastic pipe into San Francisco—it's no lead-pipe cinch
- 20 California adopts moderate curbs for the lots-for-sale developers
- 26 Tower/townhouse mix serves dual purpose in Tulsa rental project
- 28 Intensive marketing puts townhouse sales one year ahead of schedule
- 30 Why large houses on small lots in Bethesda, Md. have no privacy problem

DEPARTMENTS

- 24 Housing stock prices
- 32 The apartment scene
There's no such thing as an automatic security system
- 36 Letters
- 69 Products
- 88 Literature
- 92 Advertisers' index



The fight over interest rate curbs—and the threat to the mortgage market

Lines were drawn in mid-November for what could become an important battle between the Nixon Administration and Congress over the control of general interest and mortgage rates. The trigger word is mandatory.

While the administration has come out in favor of a voluntary approach to keeping rates in line during the President's Phase II economic program, some members of Congress—and notably Chairman Wright Patman of the House Banking and Currency Committee—want full mandatory controls of all rates, including those for home mortgages.

Patman's committee voted, 17 to 16, to alter drastically President Nixon's request for a simple extension of his authority to control wages and prices. The committee included a provision making controls on interest rates mandatory if similar controls were imposed on wages and prices.

Alarms. Administration sources complained that the Patman committee's bill could wreck the stabilization program, for the revised legislation would permit retroactive payment of the wage raises that were to go into effect during the freeze period—a development on which the President's program was peculiarly vague.

While the banking committee's revisions of the President's proposal do not necessarily insure enactment of controls or retroactive pay hikes, they do bring these questions squarely into the congressional arena—and that, of course, would mean delay.

Indeed, the House committee decided in November to postpone into December any further work on the President's plan. Patman told reporters that the fact that most Republicans voted for the postponement meant the GOP did not have the votes to bar the Democrat's changes.

Patman has complained about what he terms the administration's "demand for rubber-stamp endorsements of its legislative proposals." The chairman argues that "this not only endangers public confidence, but probably opens the entire



THE HOUSE'S PATMAN
For mandatory controls . . .

effort to serious court challenge."

Persistence. The administration clearly plans to fight the Patman changes on the House floor or in the Senate, where the Banking, Housing and Urban Affairs Committee has continued work on the proposals.

But even in the Senate, the banking committee's chairman, John Sparkman, had earlier warned that the interest rate question could be "the Achilles heel" of the entire economic program. Sparkman had told the annual meeting of the National League of Insured Savings Associations that "if wages are held down while profits of those who deal in the money market are not equally treated, the program can lose its credibility."

The Nixon Administration, for its part, says it can keep interest rates down without mandatory controls. Its legislation seeks only standby authority to control interest charges.

Rates in decline. President Nixon's high-powered Committee on Interest and Dividends, chaired by the Federal Reserve Board's chairman, Arthur Burns, had determined to keep a close watch on interest rates that affect the American family—including mortgage rates—but insisted that moral suasion would keep rates under downward pressure.

In fact, administration officials have been quick to point out, interest rates have continued to drop during the entire wage-price freeze period. The Federal National Mortgage Assn., for instance, reported that in all of the six mortgage commitment auctions held from the inception of the freeze, yields on home loans had declined.



THE FED'S BURNS
. . . and against them

The Burns warning. Burns, meanwhile, urged both houses of Congress not to try to impose mandatory controls.

"Arbitrary attempts to control interest rates, either in selected areas or for the economy as a whole, must be rejected as inefficient, inequitable, and, in the end, unworkable for all concerned," Burns said.

The Fed chairman made it clear that his Interest and Dividend Committee "does not intend to try to hold particular rates at levels that are not competitive." He continued:

"If, in the face of accelerating credit demands, an attempt were made to keep some interest rates down through the use of rate ceilings, lenders would tend to withdraw from the affected markets.

"They would place their funds in other activities where the returns that could be earned were not controlled, including the equity markets. Or they would send their money abroad. Or some individuals, trust funds, etc., would lend their funds directly to borrowers within their reach, by-passing the financial institutions and the organized security markets."

Past failures. Burns also cautioned that mandatory controls "would result in an erosion of freely functioning credit markets, as we now know them, and the substitution of less efficient, less equitable processes of allocating the supplies of credit that remained available."

The Fed chairman also pointed out that those interest rates now under some form of control have been less than successful in inducing a steady flow of funds. He explained:

"Interest rates or usury ceil-

ings apply to rates on consumer and conventional mortgage loans in most states, to rates on state and local securities in some jurisdictions, and to rates on federally underwritten mortgages.

"In the past such ceilings have limited the flow of credit to these areas in periods of rising market interest rates. They represent a type of impediment that it would be well to avoid in the future."

Return of kickers. Burns noted that if certain rates were made mandatory, the affected markets would see a reduction in the supply of credit—and that "still-active lenders would be forced to ration their short supplies of credit by some means other than interest rates."

"In such a situation," he said, "they could also be expected to use various non-rate devices—such as compensating balances, cash payments similar to points on a mortgage, special fees, or equity kickers—that would serve to enhance the return on their money."

Burns urged the voluntary compliance with his committee's rules.

Burns saw the committee's role as helping to speed the adjustment of traditionally sluggish interest rates to movements in market rates. "When and as rates in the open market move downward," he said, "administered rates (which would include FHA and VA mortgage rates) should move more and with shorter lags than they have in the past."

Politics. Burns, articulating the view of the administration, has run head-on into a Democratic Congress that is beginning to gear up for the 1972 elections.

Still, as Burns points out to the Congress: "While a legislature may impose an interest ceiling, it has no way of compelling the owners of investable funds to lend them out to anyone."

This fact, perhaps more than any other, may be what the administration hopes will convince Congress to leave interest rate levels to a voluntary program of lender cooperation.

—ANDREW R. MANDALA
Washington

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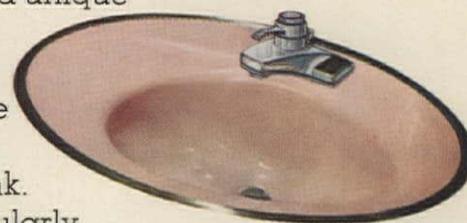
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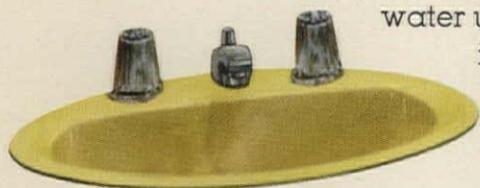


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It has a unique off-center design and appears here in beautiful Venetian Pink.



Looks particularly good with our gleaming Aquarian* single control faucet.



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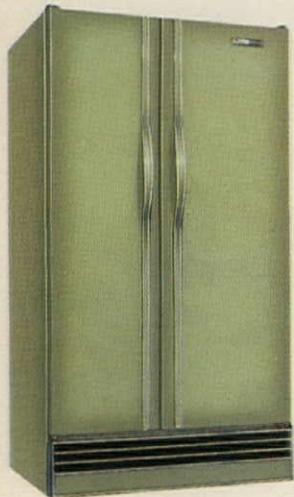


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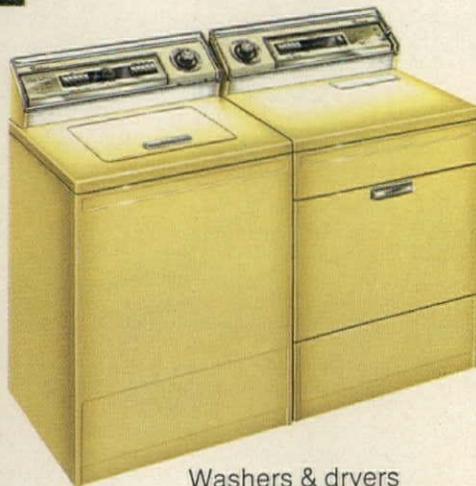


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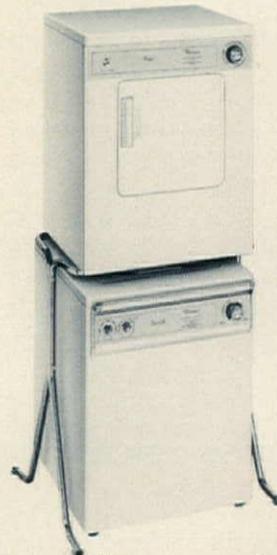
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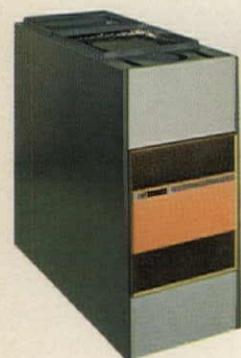
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Cleveland gets a new mayor—and a chance to break its housing deadlock

One of the nation's sharpest election upsets brings Cleveland a mayor who campaigned hard against most of the disputed housing policies of his predecessor.

The new man in City Hall is Ralph J. Perk, a Republican, and his surprise election could mean an end to the political impasse that has choked off much of Cleveland's building.

Ralph J. Perk's election caught virtually all of Cleveland unprepared. No one outside his campaign thought he could win, and the business community had put its bets on the Democratic candidate—the lawyer, financier, and commercial builder James M. Carney.

Perk's 40% of the vote scarcely serves as much of a mandate, and he will be dealing with a city council that is almost totally Democratic. Within that council he must deal with two strong and often hostile elements: the black splinter group that supported independent Arnold R. Pinkney (the 21st District Caucus), and the traditional Cuyahoga County Democratic Party. Pinkney was the hand-picked candidate of former Mayor Carl B. Stokes, who hoped to found a national black and liberal coalition on a Pinkney victory.

Builders' views. Perk's anti-business stand and the potential for trouble in his dealings with council worry housing



Cleveland's big losers are, from left, Mayor Carl Stokes' independent candidate, Arnold Pinkney. The winner in wild upset was Republican Ralph Perk, center. The Democrat, commercial builder James M. Carney, shown above with wife, also ran.

developers. One Clevelander high in the councils of the area's builders summed it up this way:

"We're glad Pinkney didn't win. He probably would have followed the Stokes lead.

"But there are two things Perk has to clear up far as we're concerned. Wrangling between the council and mayor's office must stop. And he must bring the city and suburbs together on a sewage treatment system for the county. We have a sewer tap-in ban that's over a year old, and that's the only way it's going to be lifted."

Builders have been sidestepping Cleveland during the Stokes Administration, another developer says, "because the headaches weren't worth the effort. Perk has a chance to clean up the situation."

Low-income dispute. For a variety of reasons, almost all of the housing being built in Cleveland now, and over the

last few years, is low-income housing. And Perk's election has many low-income housing proponents afraid and hostile.

Perk's strongest position on low-income housing during the campaign was his opposition to placing low-income projects in neighborhoods that didn't want them.* Cleveland's blue collar, white, west side neighborhoods were the heart of his strength, and the placement of low-income housing there had caused numerous Stokes confrontations with the city council.

Perk's plans. One aide insists that Perk's stand is different from the way it sounded.

"Perk would oppose any proj-

*Perk's first follow-up move was to revoke the permits for 132 turnkey units of public housing that were to have been erected in Cleveland's predominantly white and blue-collar Ward 9, on the West Side. The contract was held by Building Systems Housing Corp., a subsidiary of Building Systems Inc. of Cleveland. The program had been opposed by residents, and Perk had carried the ward by 3,600 votes over his nearest rival.

ect that had real and strong neighborhood opposition, even if he personally felt that it was worthwhile," the aide said.

"But his plan is to make public housing less objectionable. He does in fact support the scattered concept. His concern is the strain a project might put on local services. Low-density public housing eliminates many of these objections and gives him something to sell.

"On the other hand, many poor communities, black and otherwise, seem to want large, well done housing projects where the result is a maintenance of their power base and a feeling of pride and unity. It becomes a question of what the people in a given community want, and what you can sell them. I think you'll see some real movement in housing under Perk, but on a cooperation basis, not the confrontation tactics that have been used."

Apartments. Similarly, Perk's aide feels any administration opposition to conventional apartment construction in Cleveland would be based on what it would do to a neighborhood. "He isn't going to let a developer harm a community to make a buck."

Selling the blue collar community on scattered-site, low-income housing will be a difficult task if, in fact, Mayor Perk takes it on. But he may be the one man in the city who can do it. His election shows that he has that community's confidence. And success in that sales effort would fit nicely into the future plans of the Cuyahoga Metropolitan Housing Authority. They announced several months ago that low-density scattered housing has top priority.

—RAY LEWIS
McGraw-Hill News, Cleveland

In New York State, the voters rebelled and said no . . .

. . . to an amendment to expand the borrowing powers of state and local governments and let them lend or give money to private interests for community development.

The proposal was viewed as having wide potential for the revival of public housing.

The amendment had a kind of kiss-of-death support from Governor Nelson Rockefeller and Mayor John Lindsay of New York City, and it shared the ballot with a highly controversial \$2.5 billion transportation bond issue.

The bonds sank to ignominious defeat in a vote almost universally interpreted as a protest against the governor, the mayor, the big-city press, and

the Establishment. The development proposal appeared to suffer much of the electorate's spill-over antipathy, and it lost by almost as wide a margin. A nationwide groundswell of anti-tax and anti-spending sentiment was also cited as a deterrent to both proposals.

In San Francisco . . . a bitter campaign to preserve the skyline from new skyscrapers ended in a 2-to-1 defeat.

A dress manufacturer and conservationist, Alvin Duskin, had proposed the initiative to limit all new building to six stories. Real estate interests, banks, the major corporations, labor unions, and Mayor Joseph L. Alioto (who was reelected) closed ranks against him.

But despite the defeat, all height limits are now undergoing review by the city's planning department, an action generally conceded to be a response to Duskin's colorful campaign.

In San Diego . . . the voters chose state assemblyman Pete Wilson as mayor by a 3-to-2 margin over their former city attorney.

Wilson, 38 and a Republican, wrote California's Factory-Built Housing Law, the first state legislation to permit factory housing in any location, despite local code restrictions, if the units had been approved by state inspectors. Wilson was cited by HOUSE & HOME as one of the housing industry's Top Performers of 1969 (H&H, Jan. '70).



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Chinese proverb

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Levittowns all over Europe, a barnstorming Bill Levitt promises in Paris

France was only first base (NEWS, Dec. 1965).

And in 1968 Kaufman and Broad joined Levitt there.

Now the demand for new, single-family houses is so great that both are expanding to other parts of Europe.

Bill in Paris. Late in October, Levitt flew into Paris to announce that ITT-Levitt & Sons Inc. would build in West Germany and Spain.

"Our company successfully introduced single-family planned community living in France," he said. "The time has come for us to introduce our expertise in other West European countries."

Levitt said the company had conducted market surveys in Germany, Italy, Belgium, and Spain "to determine not only the need for new housing, but also to probe the social, sociological, and cultural acceptance of our concept of living."

Munich, Germany, and Madrid, Spain, were the first cities to qualify.

K&B in Germany. Several weeks later, Kaufman and Broad, which had opened offices in Munich and Frankfurt, Germany, earlier in the year, disclosed that it had acquired its first piece of land in Frankfurt. It plans to build 186 one- and two-family houses.

Frankfurt, a business and banking center, "offers the kind of high-salaried, stable population that is our kind of customer," said Harold Gootrad, who heads Kaufman and Broad's European operations.

The company plans to concentrate on France and Germany, and has already made market studies of half a dozen other German cities.

"Ripe Market." Munich, with population increase of 300,000 in the last decade and an excellent highway and rapid transit network, is ideal for American-



Bearer of glad tidings, Bill Levitt holds press conference in Paris hotel to announce plans to build in Germany and Spain—and perhaps beyond. Lou Fischer is at right.

style housing developments. Levitt has bought land for some 500 single-family homes within a radius of 15-25 miles from the downtown area.

"Last week, over 60,000 people were looking for new homes in Munich," Bill Levitt told the Paris news conference. "Now that's what I call a ripe market."

Spain, too. Another ripe market is Spain, which has been enjoying a booming economy. Levitt has joined with a Spanish company to buy land for 700 single-family houses outside of Madrid.

"There are 100,000 families in the Madrid area with the money to buy a single-family private house," said Andrew Lorant, head of Levitt's European operation. "As Madrid becomes more and more the typical, congested, modern capital, they're going to want a home in the suburbs—and we'll be there to give it to them."

Success in France. France is not being neglected in Levitt's and Kaufman and Broad's expansion plans. Since 1965, Levitt has delivered over 2,000 homes in the Paris region. Prices range from \$25,500 to \$35,000 for townhouses and \$29,500 to \$58,000 for single-family homes.

Today, another 1,600 units are under construction, nearly half of them townhouses, and the company has options on six more tracts of land near Paris.

Kaufman and Broad, in France since 1968, is now building four subdivisions near Paris, and has optioned 50 acres near Marseilles.

The company has changed its approach to the French market in the last year. It is about to open its first quadrimum, quadplex, and townhouse projects, where homes will sell as low as \$22,500—a big drop from the \$40-\$45,000 range of earlier subdivisions.

So K&B is now in position to tap the vast market of young families buying houses for the first time. The company had been selling to high-income professional people in their forties who thought of buying houses they could bequeath to their children.

No school tax. Even \$22,500 is a big chunk of money in Europe, where salaries are generally lower than in the U.S.

But there are reasons why Europeans can afford these prices. They are considerably lower than the prices charged by local builders. And "the homeowner is not penalized for

schools, which are supported statewide," according to Norman Peterfreund, Levitt's chief financial officer.

Incentive to save. In Germany, where homes cost considerably more than in France, there are generous government incentives built into the savings and loan system, Peterfreund said.

A depositor contracts to save a certain amount at an S&L (*Bausparkasse*). He may then elect to receive either a direct government subsidy—the amount varies according to marital status, dependents, etc.—or an indirect subsidy in the form of an income tax deduction. He is eligible for a mortgage after 30% to 40% of the contract has been paid.

If he decides to buy a house, he gets a normal mortgage from a mortgage association or a savings bank at 8% to 9% for a portion of the purchase price. He may then withdraw his equity from the *Bausparkasse* and at the same time get a second mortgage for the remainder of the purchase price at the highly favorable rate of 5% to 6%. At this point the government subsidy stops, but other tax advantages begin. There are provisions for accelerated depreciation of new homes, for example.

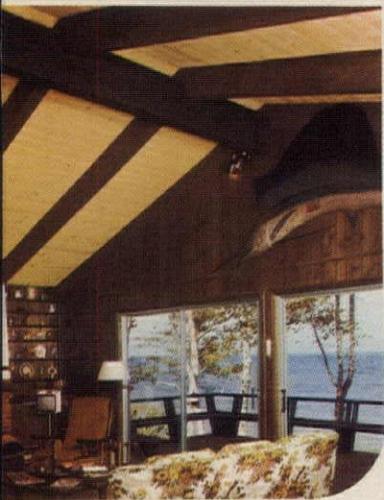
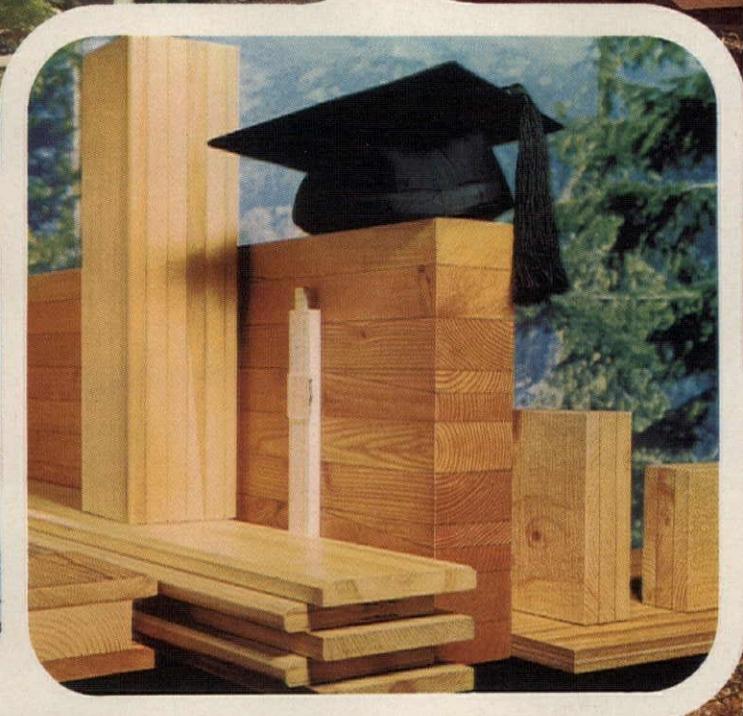
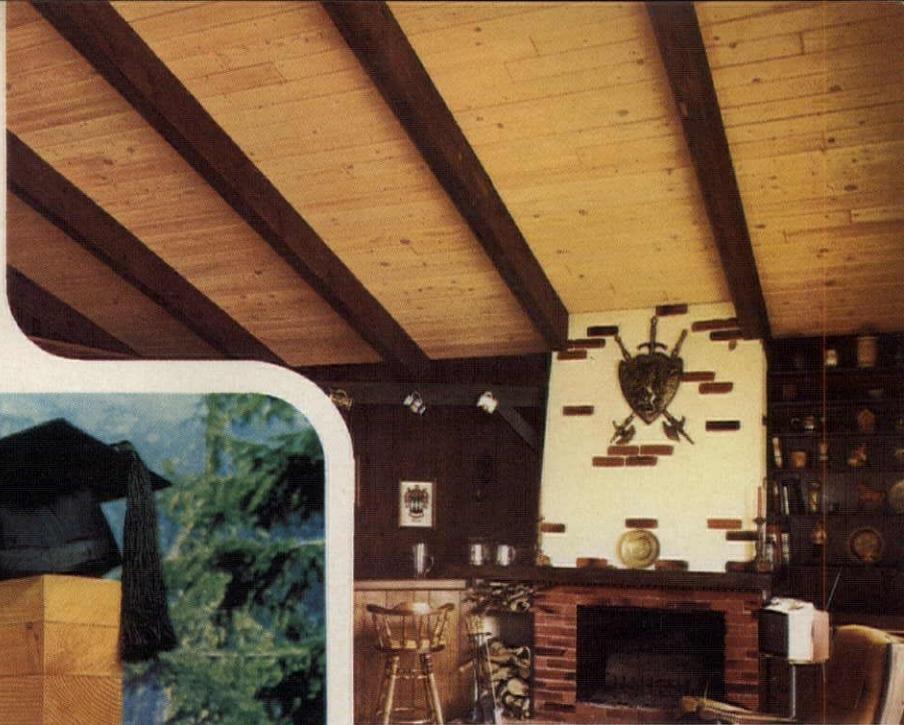
Why is it so expensive to build in Europe? Both Levitt and Kaufman and Broad cite land costs, longer lead times, cost of training labor, government regulations, and difficulties in obtaining appliances and supplies.

Turnabout. Maybe that's why France's large residential builder, Batiservice, has begun to build in the U.S. The company recently opened its first models of two to four-bedroom houses in the \$23,500-\$31,500 range in Delray Beach, Fla.

—MICHAEL SULLIVAN
McGraw-Hill World News, Paris



Americans in Paris can be very popular if they happen to be single-family homes. These were built by Kaufman and Broad at Chevreuse, a suburb 20 miles southwest of the capital. The five-bedroom, 3-bath Bougainvillée model (left) sells for approximately \$58,000; the four-bedroom, 2½-bath Daphné model (right) costs some \$54,000.



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H&H DECEMBER 1971 11

Cascade of red ink washing Boise out of land development and site building

The company hopes it can turn the tide by easing out of the two money-losing operations.

But is it too late?

Boise's third quarter figures tell a sad story. Net sales for the nine months ended September 30 were \$1.3 billion, up 1% from the same period a year ago. Net income was only \$6.4 million, down 85% from \$41.6 million in 1970. But a \$44 million special charge plunged Boise deep into the loss column—a \$37.6 million loss against a profit of \$41.6 million a year ago.

And 1970 itself was a bad year; profits for the first nine months of 1969 had been \$67.8 million.

So the company is retrenching. It feels that by selling its on-site building operation outright, cutting back sharply on recreational land development, and increasing its investment in the things it does best—such as factory housing, mobile homes, and paper—it can stem the drain.

Growing pains. All this is quite a switch for a company whose name has been synonymous with growth.

Boise's celebrated expansion program had turned it from a local lumber company into an international colossus in little over a decade. One logical extension of its building-products operation was into land development and housing, and in rapid succession the company acquired builders R.A. Watt and Daniel Schwartz; land developers U.S. Land, Lake Arrowhead, Pacific Cascade, and Crystal Bay; the prefabber Kingsberry Homes; and the mobile home builder Divco-Wayne.

By the end of 1969, the housing and recreation divisions accounted for 28% of Boise's sales and produced \$32 million in income. A year later, the two divisions posted 23% of the sales, but the red ink had begun to flow. Income from the housing division was down from \$21 million (on sales of \$270 million) in 1969 to \$6 million (on sales of \$234 million) in 1970. At the same time, income from the recreation products division plummeted from \$11 million (on sales of \$209 million) to an \$11 million loss (on sales of \$158 million) because of a sharp drop

in sales and writedowns on land development projects.

Writedowns. In the second quarter of 1971, the company took writedowns of \$78 million, amounting to \$44 million after taxes. Trimming down the homebuilding and recreational land operations accounted for approximately half of this, and writing off a minority interest in Burnett-Boise, a company it had formed in 1967 with a black-owned construction firm to do urban development, accounted for the rest.

Thus, as the nine-month figures show, not only the housing and recreation divisions, but the entire company will be in the red this year. The company's stock, trading in the 70s at the end of 1969, was in the 40s by the end of 1970. In mid-November 1971, it hit a new low of 15.

Growth gone awry. What went wrong with the expansion program that took Boise into virtually every sector of housing and land development?

For one thing, it all happened too quickly (see chart). In 1966, only 4% of the company's sales were in housing; in the peak year of 1969, housing and land development accounted for 28% of their \$1.7 billion in sales.

Builders' exit. Even under the best of circumstances, such vertiginous expansion would have strained management. The problem was compounded when experienced builders and developers left after their companies became part of the giant (H&H, Oct. '70). Kingsberry's Al Hildebrandt stayed for three months. Ray Watt quit after a year. And U.S. Land's Tom

Perine left after nine months.

Internal personnel problems also took their toll. In the five years Boise has been developing recreation properties, the recreation communities group has had four managers. The housing group has had five in the last three years.

Builder vs. accountant. Many builders feel that much of the trouble stems from a basic incompatibility between the entrepreneur and the accountant. One explained:

"A builder has to have a lead time. He has to have an opportunity to leverage his money. But that's just when a publicly held company might say it doesn't want any more debt."

William Agee, who once headed the housing division and is now the company's chief financial officer, agrees:

"Most public companies are basically interested in quarters, semi-annual reports, and earnings per share. And in many instances, maximizing earnings per share over a shorter period conflicts with the builder's objective of keeping his taxes down and accumulating property."

Still, the envelope and corrugated container business was once an individually or family-owned operation, and now both are generally manufactured by divisions of major paper producers.

"They've gone through the same kind of struggles as the builders, and now you look back and it's not the problem it once was," said Agee. "But the same thing may not occur in the homebuilding business."

Penalty of bigness. One reason may be that the advantages

of being big are cancelled by certain disadvantages. Agee explains:

"It's very difficult in being a tract builder to be all things to everybody throughout the United States, because there are differences, especially as they relate to the buying patterns, growth patterns, and zoning within certain communities. And it's much more difficult to standardize a lot of things."

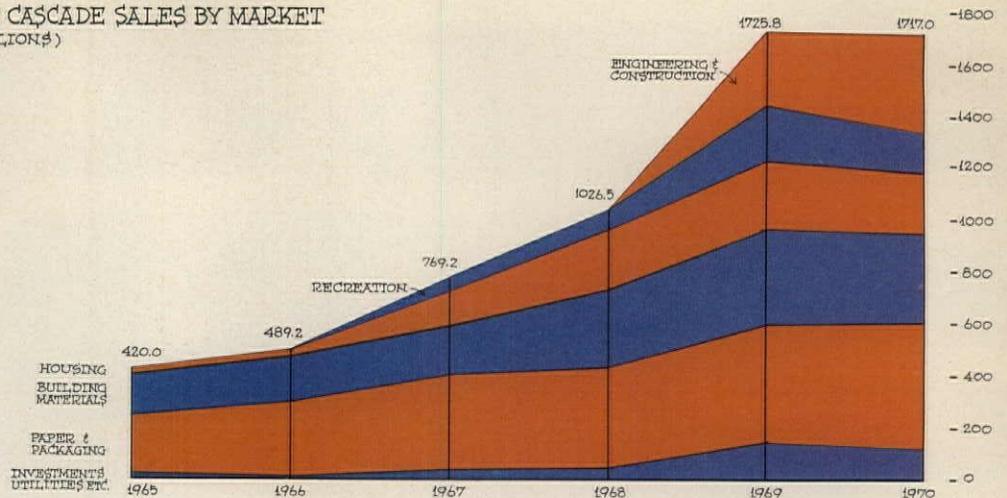
Being an outsider has been particularly costly to Boise in its recreational communities. The company started its 25,000-acre Waikoloa project in Hawaii just after land development and environment had become sensitive issues. The concessions, such as sewage facilities and the width of streets, that were wrested from Boise cut deeply into the profit margins.

Disaster area. In fact, the whole recreation land development operation has been a disaster. Where Boise hasn't run into zoning trouble with local communities, it has met complaints from environmentalists. A lagging economy has cut heavily into the demand for recreational investments. And the company concentrated heavily in the California market just as the state's economy was turning soft.

Boise has now dropped most of its new projects, and substantial investments for planning and preliminary work have simply gone down the drain.

Litigation. Another problem with land development recently surfaced when the state of California accused the company of engaging in "false and mis-

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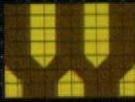
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Traditional Casement?



Contemporary Awning?



It's just one window--the

Now there's a quality Andersen Window for lower-cost housing. It's Flex-Pac™, a new line of wood windows which brings Andersen's traditional quality and "curb appeal" within reach of builders selling to this market.

Yes, it has Andersen quality lumber, Andersen quality glazing, Andersen quality hardware, construction, design and finish. Yet Flex-Pac prices are truly competitive.

How did we achieve a lower-cost window without compromising Andersen quality? This way:

Long runs, lower costs.

We limited the range of sizes offered to a functional number, simplified the options, and achieved lower unit cost through volume production.

Completely prefinished, too.

Flex-Pac Units feature the latest development in

prefinishing wood windows with *electrostatically* applied paint. Andersen leads with this important new technology. Two coats, inside and out, mean no on-site painting and a higher quality finish, too.

Out of the carton and into the wall.

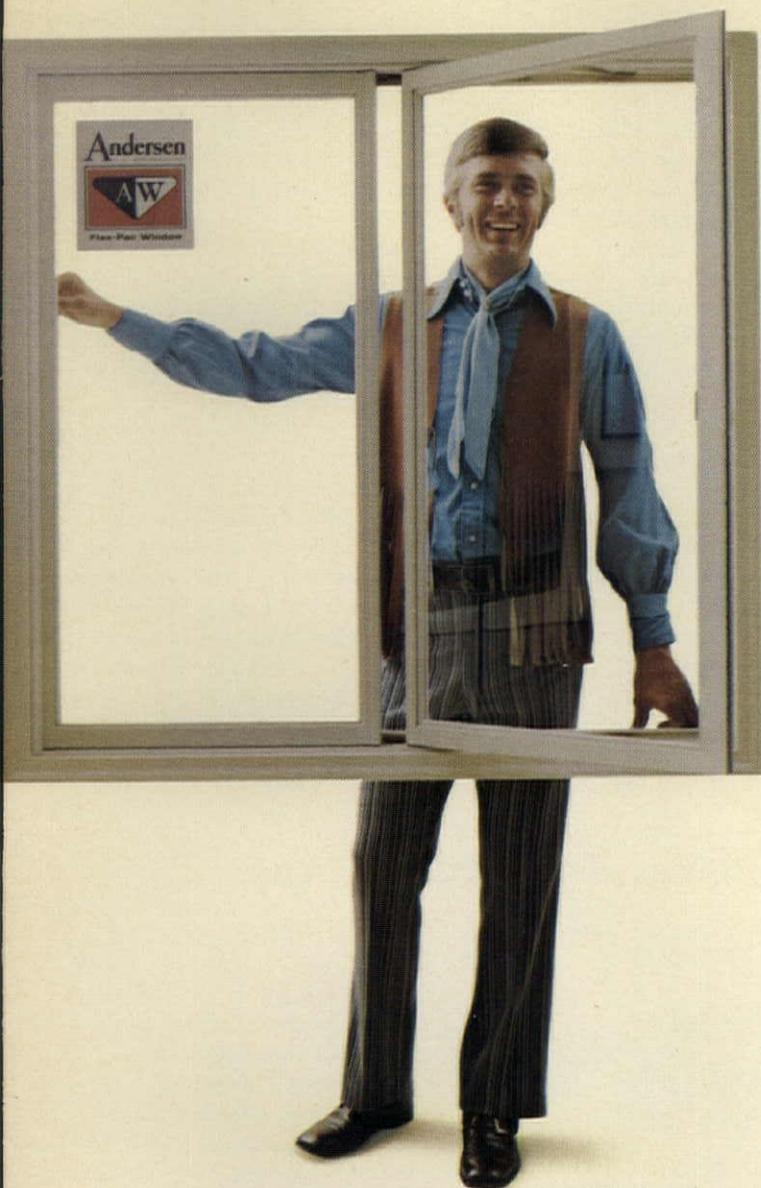
Flex-Pac is completely factory assembled. All operating hardware, including screen strikes, is factory applied, so there is no hardware to be attached on job site. The basic jamb is 3-9/16", which accommodates either 3 1/2" or 3 5/8" studs.

A factory-applied exterior casing means easy installation in any weather. Factory-applied jamb liners allow flexibility in wall thickness up to 4 5/8". Trimming out costs are cut to a minimum.

Four window styles—one window inventory.

Flex-Pac Windows can be installed as either an awning or a casement—beveled casing on all four

Contemporary Casement?



Traditional Awning?



new Andersen Flex-Pac! ^{T.M.}

sides allows proper draining either way. This feature cuts inventories (it can halve them, in fact), without reducing variety. And removable grilles, which give either casement or awning window a traditional appearance, can easily be added.

Packed and ready to go.

Flex-Pac units are packed in protective cartons and our distributors and dealers are ready to supply them right now.

So now home builders or manufacturers working to tight budgets . . . in fact any builders . . . can include the quality and "curb appeal" of Andersen Windows and retain a competitive price. Everyone wins!

HH-121

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Cascade of red ink washing Boise out of land sales, site building... *continued*

leading representations and omissions of fact" in the marketing of four recreational subdivisions acquired in 1967 and long since sold out. And eleven property owners in one development have brought a class action against the company, charging fraudulent sales.

Boise's stock fell three points the day after the suits were announced.

New tack. Ironically, the suits involve some of Boise's earliest land development projects, in which the company merely cut up and developed the land and then sold it. Boise later decided that it was not in the business for speculation and that it was going to sell a product for use.

The company started a vacation housing division to promote homebuilding on its recreation lots. It also invested in golf courses, pools, and artificial lakes, and, in many places, it was then faced with meeting local demands for such facilities

as underground utilities and sewage systems.

The new task turned out to be costly, for in some areas the market could not absorb the higher lot prices necessary to offset the increased investment.

Burnett-Boise. Another costly venture was Burnett-Boise, the black-operated urban development and construction company, in which Boise owned a 44% interest. Boise had nothing to do with the management of the company, but furnished bonding. When Burnett-Boise ran into problems—cost overruns, delays, extra carrying costs—Boise had to make up the deficit. About half of the \$78 million writeoff in the second quarter of 1971—\$44 million after taxes—was attributable to writing off the company's investment in Burnett-Boise.

Retrenching. Boise has now made the two tough decisions that it hopes will route it back on the road to growth and prof-

its: to get out of on-site homebuilding and to cut back recreational land development.

Executive Vice President John Fery admits that Boise is talking to a number of companies—the word in the industry is that Singer is one of them—that want to buy all or part of the building operation. Two minor deals have already been made, but the company is not ready to announce them.

The recreational land division will continue to sell its seven active projects and turn those in the waning stages over to the respective property owners' associations. The division recently sold a number of resort properties, including Lake Arrowhead, and has no plans for developing the five or six remaining parcels.

New expansion. Finally, the company has negotiated \$75 million in loans to embark on what it describes as "one of the largest capital expansion pro-

grams in Boise Cascade's history." Much of this money is being used to expand existing factory housing plants and to build new factories in the West and Northeast. By the end of 1972, Boise expects to have capacity in excess of 15,000 units, 50% more than at the beginning of 1971.

Future. Boise has been scrutinizing its operations and retrenching since profits began to decline in mid-1970. In the last annual report, President Robert Hansberger said:

"Last year became a platform from which we can return to our prior patterns of growth."

Today, that platform is shaky and there have been reports that a reshuffling of top management is imminent. Everyone is watching to see how the team—or what's left of it—that masterminded Boise's phenomenal rise will take it through the crisis.

—NATALIE GERARDI

Sears Roebuck and a builder try selling furnishings along with the house. . .

. . . and the first results are impressive in this cooperative venture between the mail order house and the California builders George M. Holstein & Sons.

Tie-in sales are in full swing in Holstein's first 109 Fairway Estates houses in the private-park community of Green Valley in Orange County, just south of Los Angeles. Both houses and equipment are moving so well that Holstein will probably extend the program to 300 more units there and to other projects.

No other southern California department store is in this deep with a homebuilder. Years ago, some did furnish models at cost, hoping to get business out of it. "But they never did," says Holstein's advertising sales and merchandising coordinator C. Robert Perryman.

Sales technique. The first tip to the teamwork shows up at the project sign-in. Sears' guides lead prospects to three- and four-bedroom model homes that are named after Sears brands: Kenmore (appliances), Craftsman (tools), and Allstate (insurance).

Models are decorated with Sears items—from flooring,



Models at George Holstein's \$29,500-\$30,000 Fairway Estates project (above) feature Sears furnishings and appliances for sale with homes. Opening party (below) was held at the site to greet builders, city officials, and Sears store executives.



draperies, and wallpaper to appliances, built-in ranges, ovens, dishwashers, laundry equipment, and leisure-living items for patio and garden. Hobby tools are displayed in a model garage.

There are 25 Sears stores in its Los Angeles retail district. Throughout these, signs tell customers about Fairway Estates.

Design aid. Two Sears staff designers—Nancy Lenney and

Patricia Brannigan—assist homebuyers during an after-the-sale date set up by Holstein. They help select carpet colors, coordinate appliance colors, offer wallpaper and draperies suggestions—and even aid in outdoor planning areas with professional help from Sears garden and patio shops.

It's too soon to draw a lot of conclusions about the plan, but one thing seems to be happening. Buyers are upgrading purchases, such as wall-to-walls, instead of sticking to basic stock items.

"It gives buyers of an inexpensive home—\$29,500 to \$30,000—a place to go to get expert help," says Perryman. "They also get two-way protection from the Holstein guaranty on construction and Sears warranties on products.

Other tie-ins are already in the works. For example, Sears is sending Fairway Estates brochures with their bills and also distributing them at Sears gas stations. And Fairway Estates is plugging Sears products at the building site with store-type demonstrations on lawn care, power lawnmowers, and sports equipment.



The Sevilla as built by Wendimere, Inc., Jupiter, Florida.

Ask us about building profits faster and see what it gets you.

Building a more successful operation is what this business is all about, right? So you owe it to yourself to talk with the Kingsberry Man. Ask him exactly what he can do for you. And sit back for some mighty profitable answers. He's a trained expert on the kind of details that can make a real difference in your profit margin. And nobody knows more than the Kingsberry Man about quality manufactured homes. He can show you over 130 designs by some of the country's

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leading architects—designs to suit every kind of market and lot situation and greatly reduce on-site labor cost. Then he follows through with quick delivery... blueprints at no extra cost... and co-op advertising. What else can he offer? Literally thousands of consumer-appealing options that help you sell fast! Get in touch with him soon. And

get answers on building up your operation for bigger profits. Just mail the coupon. You'll get action in a hurry.


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 Rudy A. Brown, Director-Marketing Dept. HH-12
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 Please send more information on the Kingsberry program and have the Kingsberry Man call on me.

Name _____

Firm _____

No. lots I now have ready to build on _____

No. of homes _____, apts. _____ I built last year.

Address _____ Phone _____

City _____ State _____ Zip _____

Come boom or bust in California, Viejo's mission is still to sell houses. . .

And its sales team is selling so many that the Mission Viejo Co. is building a boom of its own smack in the middle of a sagging California market.

It's an unlikely team, too. It's composed of the homeowners who already live there—and a computer.

Families urge friends to become neighbors, initiating a phenomenal 62% of sales. And the computer knows in advance what buyers will want, so the houses are waiting when they arrive.

Result: another record year for the company's new town of Mission Viejo, halfway between Los Angeles and San Diego, despite Orange County's lukewarm market. By November, 1,200 homes had been sold, as many as were predicted for the whole year. The last peak year was 1968, when sales hit 807, but even the 764 sales recorded in 1970 were more than those of any other Orange County homebuilder.

Trouble shooter. Mission Viejo is built on market research and a way of life. A sophisticated computer analyzes sales rates and economic, consumer, and competitive data. The company can then spot trouble early or see strong points and capitalize on them.

"Changes are not the result of somebody's scratching his head and saying, 'Let's try this,'" says Marketing Director Dave Maddocks. "We know exactly what we're doing."

Madrid's success. Take the New Madrid neighborhood, for example.

Sales have averaged two a day since the opening in late February, outstripping everything else in the community. Yet these are the most expensive homes Mission Viejo is building—\$30,500 to \$41,995 for a three- to five-bedroom detached house with two or three baths (photo, above).

First, research showed that people liked the country feeling; so the New Madrid houses were built right on the edge of the community.

"We put them out on a beautiful hilltop with vistas up the valley to Saddleback Mountain," says Maddocks. "We literally forced people's gaze into the country."



Biggest and best in Mission Viejo's community of New Madrid houses is this five-bedroom Casa Sarga, with arched gateway leading to an enclosed front patio.

Next, research determined that the \$30-\$40,000 market had been neglected since mid-1969 and that there was pent-up demand.

"The rise in interest rates had caused this market to hold off buying—people couldn't sell their homes," Maddock explains. "But when the rate dropped, they came out of hiding. And we had a great product at the right time."

The great product consisted of the models that had been best sellers in other Mission Viejo neighborhoods.

Subtle selling. Recreation centers were turned into selling tools in the new town. In fact, Mission Viejo built the newest center right next to the New Madrid model homes with a common entry so people could turn right to go to the sales compound or left to go to the center.

Some 260 visitors a week visit the models. Then they wander around on their own, see what's going on in the community and on the tennis courts, and draw their own conclusions.

Leaving nothing to chance, the company also built a gazebo at the edge of a hill, right in the middle of the crescent of model homes. From here, visitors can look out over fields of grazing cattle and see

a riding stable with youngsters going by on horseback.

"We've given people the opportunity to see the best of what we have," Maddocks explains.

Another example of this technique is apparent in the Seville Garden section, where the models overlook Wilderness Glen, 28 acres of natural park with trails and camping areas.

Success story. By creating an attractive total environment, Mission Viejo has turned a handicap—it is 45 miles from Los Angeles Civic Center, 15 miles more than its major competitors—into an asset. Since it opened in 1966, it has sold around 5,000 homes priced from \$17,995 to \$71,750.

Four neighborhoods sold out within the last year—La Paz, Granada, Coronado, and Mission Ridge. Population is now about 16,000, and 85,000 is projected by 1986.

The community already has six schools, three churches, nine parks, a golf course, movie house, and library. Forty-four percent of the residents pay an unusually high \$9 a month to use the three recreational centers. Four neighborhoods are now under construction—New Madrid, Seville, Eldorado, and the Aliso Villas townhouses.

Model sales tool. It's not

Next for Mission Viejo: Arizona and Colorado

These are the states Mission Viejo has chosen as the likeliest places to duplicate the success of its California community.

The company, which became an affiliate of Philip Morris Inc. in 1970, is developing The Lakes in Tempe, Ariz., near Phoenix, with two single-family neighborhoods and two townhouse areas grouped

around a 50-acre lake.

Early in 1972, Mission Viejo will begin construction on a 640-acre site outside of Denver, Colo. It plans to build 3,200 homes in the \$17-\$45,000 range in five years. The community will have single-family homes, townhouses, apartments, recreational areas, and a population of more than 15,000 persons.

always easy for the potential buyer to relate to the community's size—some 3,000 out of a total 11,000 acres have so far been developed—even though Mission Viejo prevented mini-sprawl by following the radius theory of development. New homes are erected as extensions of existing areas and kept closely linked to schools and shopping.

To combat the size problem, the company built a topographical model of the town so that people could situate the house they were considering within the community. The company feels its model helped close sales that might have been lost because buyers couldn't orient to the hillside.

Some reverses. Mission Viejo's one big disappointment has been its Casa Loma apartments—144 units in 18 two-story buildings. Although they fulfill a community need, they are not economical at the rents they have to charge, and no more will be built for a while.

And the fourplex program—Aliso Villas townhouses with an initial 424 units—was delayed by governmental red tape, so sales are behind schedule. Mission Viejo expects them to catch up quickly, however, and is planning 360 for next year.

What's next. Tomorrow's segment of the community—some 2,500 acres—is already on the drawing boards.

There will be condominiums and small patio homes cascading down hillsides to the golf course. And there'll even be factory-built homes; one has already been put up, and the company is studying public reaction.

"All I can say now," says Maddocks, "is that this new segment will add a new dimension. We're going to try to do some innovative housing. What we've had up to now is a community of single-family, middle-class homes. Over the next two years we'll fill out the whole spectrum of different types of dwellings."

And if Mission Viejo's unique sales team keeps up the good work, there'll be no shortage of homebuyers waiting to move in.

—BARBARA LAMB
McGraw-Hill News,
Los Angeles



The new Super Singles. From Gerber.



Clever new styling that lets you match the decor of *any* home.

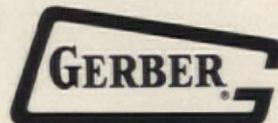
Sleek—to go beautifully in the most contemporary setting. Delicately accented to complement traditional furnishings.

These new Gerber singles let you add the luxury and convenience today's home buyers want—with confidence that the styling will be *right*.

There are new Gerber Easy-Mix™ singles for kitchen, lavatory, bath, and shower. All designed for smooth, effortless operation. The patented lifetime control unit has only one moving part. Installation is simple, foolproof.

And all are sensibly priced to give you the extra value you expect with Gerber's full line of plumbing fixtures and brass—extra value that means extra profit. Gerber Plumbing Fixtures Corp., 4656 W. Touhy Ave., Chicago, Ill. 60646.

Lets you give her
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1-212

Can HUD force plastic pipe into San Francisco? It's no lead-pipe cinch

A building code dispute has given San Francisco the option of supporting its craft unions or losing \$19 million in housing funds, but politicians seem reluctant to make the choice.

The U.S. Department of Housing and Urban Development (HUD) demands that the city revise its codes to permit use of plastic-coated wire and plastic drain, waste, and vent pipes.

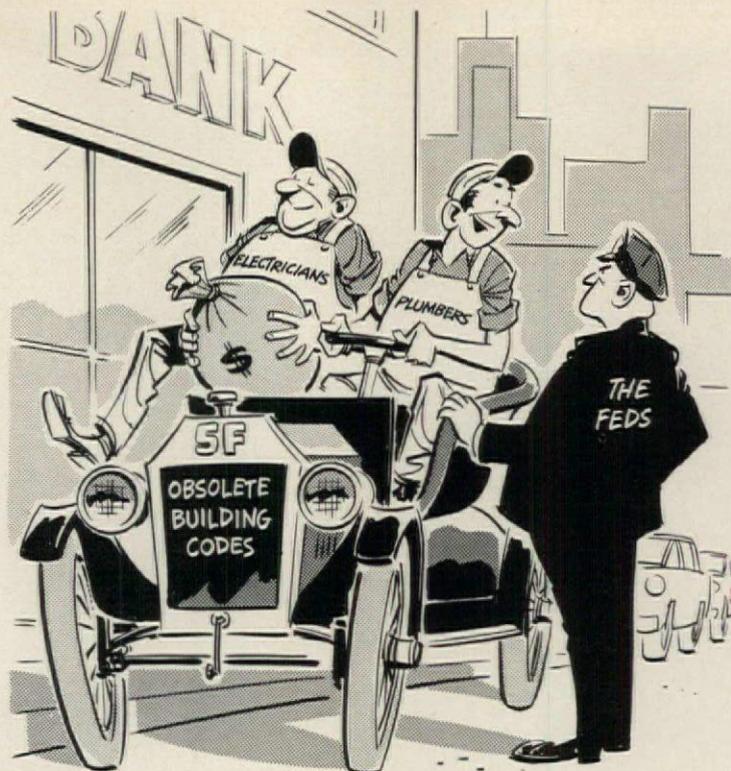
Plastic will reduce house-building costs and so permit more shelter for the poor, HUD said. And it told Mayor Joseph Alioto on September 27 that San Francisco's request for the \$19 million in HUD funds would not even be considered until the codes were modified.

Politics. The powerful electricians' and plumbers' unions oppose any change. Their sinew, applied when the mayor and five members of the board of supervisors were up for reelection, was a match for HUD's money.

San Francisco is one of the first large cities faced with an actual cutoff of HUD funds if it doesn't modify its codes.

The alternative—change codes or lose funds—was presented to Alioto, a Democrat, by a Republican administration when he was running against 10 challengers.

"HUD is using this thing as a political club," said Alioto's development deputy, John Tolan, at the time. "That's the only reason they're doing it."



Cartoon on plastics dispute was drawn by Ken Alexander for *San Francisco Examiner*.

Impasse. And so, even with the election behind and Alioto returned for a second term, officials are moving only slowly to meet HUD's demands.

Lab tests. Al Goldberg, superintendent of building inspection, admits that HUD is winning the fight for non-metallic covered wiring, but the pipe controversy still rages.

"There's no politics involved in the pipe issue," he insists. "That's a ludicrous thought. We've asked the plastics people

to provide test data that would show how plastic would stand up under use. They won't."

But Ray Durazo, director of the Plastic Pipe Institute in New York City, claims the industry has "test data on practically every conceivable normal application of the material." And he says the data has been offered to San Francisco.

"Mr. Goldberg has asked—really demanded—that the industry run tests at independent laboratories to prove to him

various performance characteristics of plastic pipe," Durazo says. "Much of what he is asking has already been done in the laboratories. But Mr. Goldberg is unwilling to accept any of this data and it would cost \$100,000 to have these tests run again."

Durazo adds that 1,500 to 2,000 cities and counties are using plastic pipe.

Performance. Several cities and counties surrounding San Francisco say they're getting satisfactory results from the lightweight pipes, quickly installed. In San Jose, 50 miles south, plastic pipe has been in use nearly five years.

"It goes in much faster and saves a lot of money," says Ernie Tershuren, assistant plumbing inspector for the city.

Tom Murphy, director of technical services for the Associated Home Builders of Greater East Bay, polled building and plumbing officials in 30 cities and counties within the state who have been using the plastics. He says results show the product is proving reliable.

Two hundred and twenty-eight California cities and counties now use plastic pipe.

And throughout San Francisco proper, employees of the city water department continue to lay plastic pipe—as they have done for seven years.

—RON E. WARTHEN
McGraw-Hill World News
San Francisco

California adopts watered-down rules for curbing lots-for-sale developers

A year's debate in and out of the state legislature has ended in passage of four bills written to restrict the activities of California's "land project" subdividers—those offering 50 or more lots for sale.

The state was whipped into a furor last year when newspapers cried out against "shameless exploitation" by land barons.

There followed hearings that extended into 1971, held by an assembly subcommittee headed by assemblyman Leo T. McCarthy (D., San Francisco).

Five bills were introduced by McCarthy, assembly bills 1300 through 1304 (News, July). Four of them reached Governor Ronald Reagan's desk but in weaker form than proposed

by McCarthy last summer.

The Governor signed three and vetoed AB 1303, which he considered an infringement on home rule.

Dilution. McCarthy had supported in AB 1304 a tax on the difference in the price paid by developers for tracts of open land and the price at which parcels of it were sold to the public. McCarthy also proposed in AB 1300 a fiscal concept of "fair, just, and equitable" as applied in land sales, with the determination to be made by the state real estate commissioner.

Both issues fell under the assault of the developers. The real estate commissioner, Robert W. Karpe, joined the land sellers in opposing the "fair, just, and

equitable" application in 1300.

Another major objection was to the right of a buyer to back out of a commitment up to 14 days after sale instead of during the 48-hour period now allowed.

The new rules. As AB 1300 went to the governor, the commissioner could not permit the sale of lots within a land project—a subdivision of 50 lots or more to be used for residential purposes and located at least two miles from an established community containing 1,500 registered voters—unless he made these findings:

The proposed golf course, pool, clubhouse would be large enough to serve the projected population of the entire project;

reasonable arrangements would have been made to assure completion, maintenance, and financing of all amenities and improvements; the development would have been adequately designed and adequate measures would have been taken to prevent property damage from floods, erosion, or other usual or predictable natural occurrences; the method of financing individual lots would be reasonable; and existing or proposed zoning would be compatible with the proposed use of the lots within the land project and the zoning of adjacent properties would be compatible with the project.

—TOM ARDEN
McGraw-Hill News,
Sacramento



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1. Job: Residence
 Location: Palm Beach, Florida
 Architect: John Volk
 Products: Top-rolling patio doors and windows

2. Job: Forté Towers
 Location: Miami Beach, Florida
 Architect: Melvin Grossman
 Products: Awning windows, patio doors (sliding glass doors)

3. Job: Four Lakes Village
 Location: Lisle, Illinois
 Architect: Aubrey J. Greenberg, A.I.A.
 Products: Sliding glass doors

4. Job: The Hills of Inverrary
 Location: Lauderhill, Florida
 Haft-Gaines Developers
 Products: Awning windows, single-hung windows, picture windows

5. Job: Rockborough
 Location: Wichita, Kansas
 Jack P. DeBoer Assoc., Inc.
 Products: Sliding doors

6. Job: Holiday Inn
 Location: Palm Beach Gardens, Florida
 Architect: Robert Karl Frese
 Products: Sliding glass doors, store front with bronze acrylic finish

7. Job: Residence at Royal Palm Yacht Club
 Location: Boca Raton, Florida
 Builder: C. D. Genz
 Products: Awning windows and patio doors

8. Job: Model Home
 Location: Miami Lakes, Florida
 Sengra Homes Development
 Products: Sliding glass doors, shower doors, mirrored closet doors

9. Job: Residence
 Location: Tequesta Village, Florida
 Architect: Ames Bennet
 Products: Top-rolling glass doors and windows

10. Job: Trolley Crossing at Westlake
 Location: Middletown, Conn.
 Architect: Robert Miller
 Builder: Achenbach Realty Companies
 Products: Sliding windows and sliding glass doors

11. Job: Ambassadors Apartments
 Location: Palm Beach, Florida
 Architect: Eugene Lawrence
 Products: Sliding glass doors, store front

12. Job: Culverdale Housing Development
 Location: Orange County, California
 Builder: R. H. Grant Co.
 Products: Shower doors

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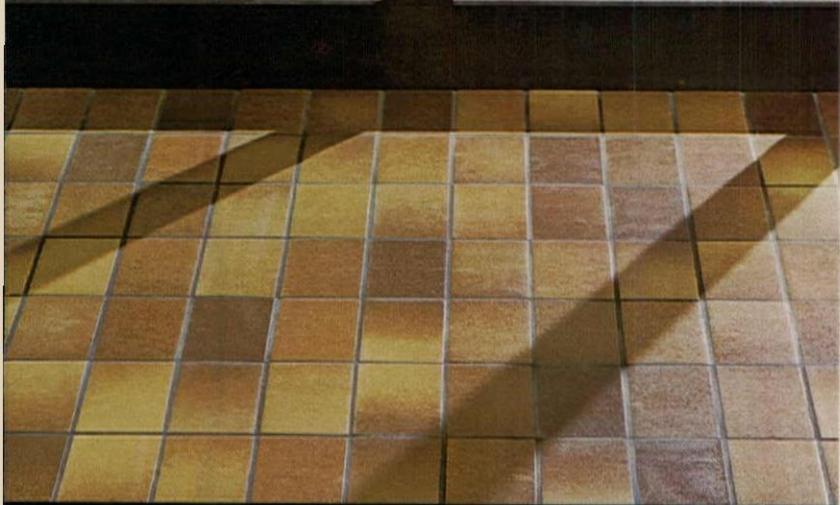
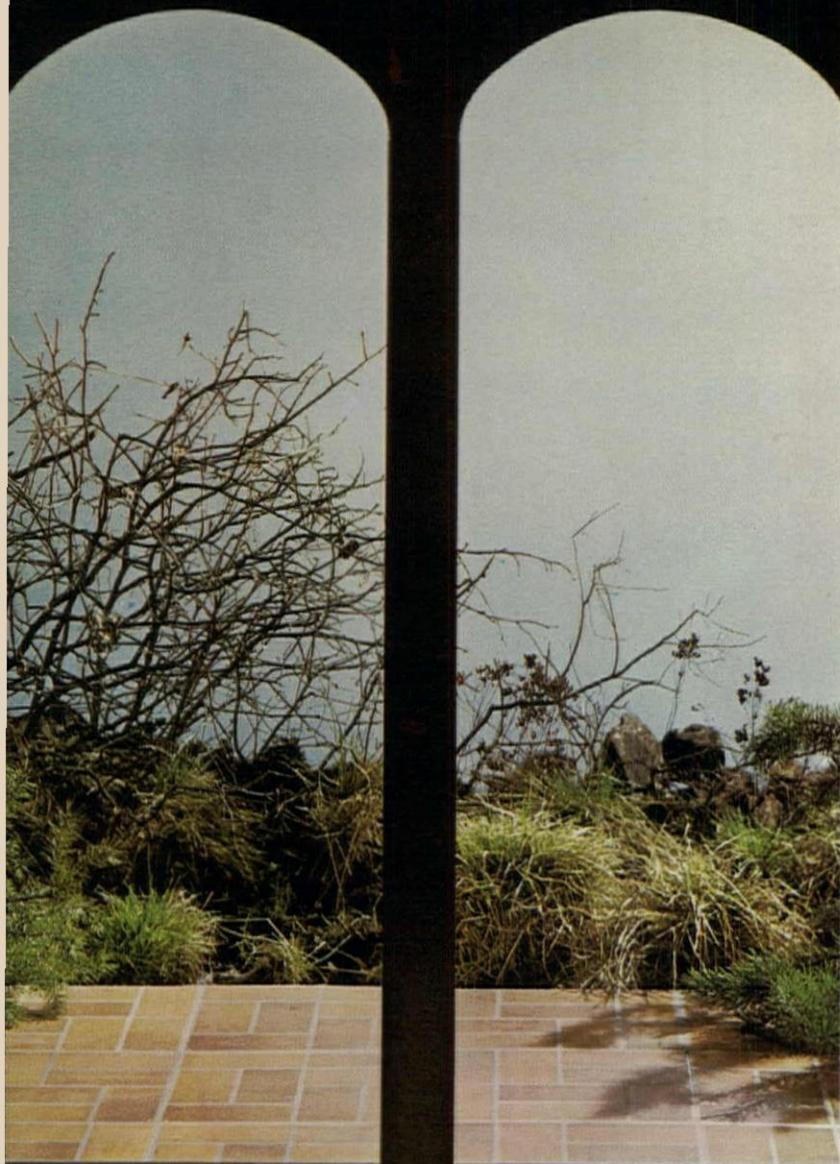
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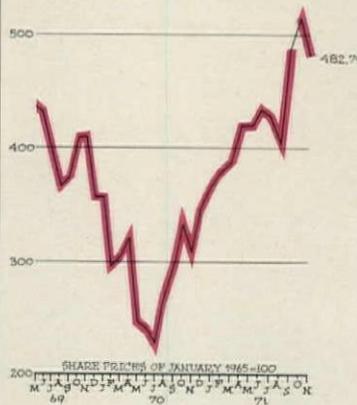
NEWS/FINANCE

Housing stocks off

HOUSE & HOME's index of 25 housing stocks sank about 6%, or from 514.51 to 482.79, in the month ended November 5.

Virtually all stocks fell hard in October, and housing issues came under even greater pressure because of another article in *Barron's* weekly on October 25 by Abraham Briloff, the accounting expert, criticizing the bookkeeping practices of several major building companies.

Here's the composite trace.



How top 5 did in each group:

	Nov.'70	Oct.'71	Nov.'71
Builders	388	581	557
Land develop.	408	619	551
Mortgage cos.	547	894	862
Mobile homes	630	1,438	1,285
S&Ls	139	205	202

Company	Nov. 5 Bid/Close	Chng. Prev. Month
BUILDING		
Alodex	8 1/8	- 1
AVCO Community Devel. ^{hd}	5	- 3/8
American Urban Corp.	5	- 1/8
Behring Corp. ^h	9 7/8	- 1 1/8
Bramalea Cons. (Can.)	2 3/4	- 1/4
Building Systems Inc.	25 1/2	- 4 3/4
Capital Divers. (Can.) ^f	45	-10
Centex Corp.	29 3/4	- 1 1/8
Christiana Cos. ^h	7 1/2	- 1 1/4
Cons. Bldg. (Can.)	1.40	+ 20
Dev. Corp. Amer. ^h	29 1/2	- 1 1/8
Dev. Int. Corp.	12 1/4	- 1
Edwards Indus.	9 1/4	+ 1 1/4
First Nat. Rlty. ^h	1 1/2	- 1/4
FPA Corp.	9 1/2	+ 7/8
Frouge Corp.	3 1/2	- 1 1/4
*General Builders^h	5 1/2	- 1 1/4
Gil Development	5 1/8	- 1/8
Hallcraft Homes	43	- 3
Hoffman Rosner Corp.	12 3/8	- 1 1/8
Hunt Building Marts	8 3/8	- 3/8
*Kaufman & Broad^d	39 1/8	- 4 3/4
Key Co. ^h	12 7/8	- 2
Leisure Technology ^h	22 3/4	- 5
McCarthy Co. ^{hd}	4 7/8	- 3/4
McGrath Corp. ^d	6	- 1/4
McKeon Const.	23 1/4	- 4 1/4
H. Miller & Sons	14 1/4	- 1 1/2
National Environment (Sproul Homes)	2 1/2	+ 1/8
*Presidential Realty A^{hd}	12 3/4	- 1/8
Presley Development ^h	57 1/4	- 2 1/2
Pulte Home Corp.	14 3/8	- 3/8
Robino-Ladd Co.	16 3/4	- 2 1/4
Ryan Homes ^h	77	- 6
Shapel Industries ^e	31 3/8	- 3 3/8
Shelter Corp. of America	19 3/8	- 1/8
Standard Pacific ^h	4 7/8	- 7/8
3-H Building Corp.	12 1/4	- 2 1/2
U.S. Financial ^h	36 3/8	- 6 1/2
U.S. Home Corp. ^d	31 1/4	- 4
*Jim Walter^h	38 3/8	+ 3 1/4
Washington Homes	25 1/4	- 2 3/4
*Del E. Webb^h	7 1/4	- 1 1/4
Western Orbis ^h	3 7/8	- 1 1/8
Wyandotte Indus. ^h (First Hartford)	4 3/8	- 1 1/8

SAVINGS & LOAN ASSNS.		
American Fin.	28 1/2	- 2 1/2
Calif. Fin. ^h	7 1/2	- 3/8
Empire Fin. ^h	14 3/8	- 2 3/8
*Far West Fin.^h	11 1/2	- 1
Fin. Corp. of Santa Barb. ^{hd}	28 1/8	- 1/2

Company	Nov. 5 Bid/Close	Chng. Prev. Month
*Fin. Fed.^d	17	- 3/4
*First Char. Fin.^h	28 1/4	- 5/8
First Lincoln Fin.	7 1/2	- 1/2
First S&L Shares ^h	21	+ 2 7/8
First Surety	4 3/8	- 3/8
First West Fin.	1 1/2	- 1/2
Gibraltar Fin. ^h	25 1/2	+ 1
*Great West Fin.^h	29 1/8	- 1/8
Hawthorne Fin.	15 1/4	- 1/4
*Imperial Corp.^f	16 1/2	+ 1/2
Trans-Coast Inv.	4 1/2	+ 1/8
Trans World Fin. ^h	13 3/4	+ 3/8
Union Fin. ^{hd}	11 1/4	- 5/8
Union Fin. Cal. ^e	10 1/2	+ 1/4
Wesco Fin. ^e	17 3/4	+ 5/8

MORTGAGE INV. TRUSTS

Alison Mtg. ^h	27	+ 1/8
American Century ^h	28 1/8	+ 3/8
Atico Mtg. ^h	24	+ 7/8
BankAmerica Rlty.	29	+ 3/4
Bernett Mtg. Tr.	30 7/8	+ 1
Beneficial Standard Mtg. ^h	25 1/4	+ 1 7/8
Cameron Brown	33 1/2	- 3/4
Capital Mortgage SBI	31 1/2	+ 1 1/2
Chase Manhattan ^e	52 1/4	+ 1 1/2
CI Mortgage Group ^e	26 1/4	+ 2 1/2
Citizens Mtg. ^h	14 3/8	- 3/8
Citizens & So. Rlty.	36 3/8	- 3/8
Cieve Trust Rlty. Investors	21 1/8	- 1/2
Colwell Mtg. Trust ^h	28 3/4	+ 1/4
Conn. General ^e	32 1/2	- 2 1/8
*Cont. Mtg. Investors^e	19	- 2 3/8
Cousins Mtg. & Eq. Inv. ^h	26 1/4	+ 1 1/8
Diversified Mtg. Inv. ^e	32 1/4	+ 3 3/8
Equitable Life ^e	28 7/8	- 2 1/8
Fidenco Growth Inv.	36 7/8	+ 5/8
Fidelity Mtg. ^h	24 1/2	+ 1 3/8
First Memphis Realty	24 3/4	+ 3/8
First Mtg. Ins. Co.	14	+ 1
First of Denver ^h	20 3/4	- 2
First Pennsylvania	27 3/8	- 2 1/4
Franklin Realty ^h	9 7/8	+ 3/8
Fraser Mtg.	29 1/2	+ 1 1/4
Galbreath Mtg.	28 1/2	- 1
Great Amer. Mtg.	33 3/4	+ 2 1/4
Guardian Mtg. ^h	46	+ 2 1/4
Gulf Mtg. & Rlty. ^h	20 1/4	+ 3/4
Heitman Mtg. Investors	15	- 1/8
Hubbard R. E. Investments ^e	22 7/8	+ 2 1/2
Larwin Mtg. ^h	33	- 3/8
Lincoln Mtg.	9	+ 7/8
Mass Mutual Mtg. & Realty ^h	27 3/4	- 1 1/8
Median Mtg. Investors	16	+ 7/8
Medical Mtg.	31 3/4	+ 3 1/8
Mony Mtg. Inv. ^h	14 1/4	- 1/4
Mortgage Trust of Amer. ^h	27 1/4	+ 7/8
North Amer. Mtg. Inv. ^h	34 3/4	+ 3/4
Northwestern Mutual Life Mtg. & Rlty. ^h	25 1/4	- 1 1/4
PNB Mtg. & Rlty. Investors ^h	27 3/8	- 1/4
Palomar Mtg. Inv. ^h	17 3/8	- 3/8
Penn. R. E. Inv. Tr. ^h	12 3/8	- 3/8
Realty Income Tr. ^{hd}	14 7/8	- 3/8
Republic Mtg. ^h	21 1/8	- 3/8
B. F. Saul, R.E.I.T.	22 3/4	+ 1 7/8
Security Mtg. Investors ^h	19 3/4	+ 1 1/8
Stadium Realty Tr.	9 7/8	+ 5/8
State Mutual SBI ^h	24	- 1 1/8
Sutro Mtg. ^h	22 7/8	- 1 1/8
Unionamerica Mtg. & Eq. ^h	32	+ 1 1/2
U.S. Realty Invest. ^h	18 3/4	- 1 1/4
Wachovia Realty Inc. ^e	35 1/2	+ 5/8
Wells Fargo Mtg.	23 3/8	1 1/8

MORTGAGE BANKERS

Charter Co. ^h	30 1/4	- 7
CMI Investment Corp. ^h	45 1/2	+ 4 3/8
*Colwell^h	20 3/4	+ 3 3/8
Cont. Illinois Rlty. ^h	37 3/8	+ 5/8
Excel Investment	10	+ 1 1/2
Fed. Nat. Mtg. Assn. ^h	77 3/4	+ 3/8
First Mtg. Ins. Co.	14	+ 1
*First Mtg. Investors^h	31 1/4	+ 1
*Lomas & Net. Fin.^h	18 3/4	- 1 1/8
*MGIC Invest Corp.^h	74 1/2	- 1 1/2
Midwestern Fin. ^h	20 1/4	- 1
Mortg. Associates	31 1/2	- 3 1/2
Palomar Fin. ^h	11 1/4	- 1 1/4
UPI Corp. ^h (United Imp. & Inv.)	2	- 3/8

LAND DEVELOPERS

All-State Properties	1 1/2	+ 1/8
American Land	.05	- .01
*AMREP Corp.^h	25 3/4	- 1 3/4
Arvida Corp.	10 1/2	- 3/8
Atlantic Imp.	4 1/2	- 1/2
Canaveral Int. ^h	5 1/8	- 3/4
Cavanagh Communities	6 3/4	- 7/8
Crawford Corp.	5	- 1/2
*Deltona Corp.^h	28 1/2	- 6 3/4
Disc. Inc.	2 3/4	- 7/8
Don the Beachcomber Ent. (Garden Land)	4 1/4	- 1/4
*Gen. Development^h	28 1/4	- 1 7/8
Gulf State Land and Ind. ^{hd}	3 3/8	+ 1/8
*Holly Corp.^h	1 1/2	- 1/4
Horizon Corp.	45 1/4	- 6 1/2
Land Resources	3 1/2	- 5/8
Major Realty	8 3/8	- 1 3/4
*McCulloch Oil^h	27 1/2	- 4 3/4
Sol. Rlty. & Util. ^h	4 7/8	- 1 1/8

MOBILE HOMES & MODULES

Conchemco ^h	17 3/4	- 4 3/8
*Champion Home Bldrs.^h	37 3/4	- 7 3/8
Commodore Corp. ^h	14 3/8	- 5 1/8
De Rose Industries ^h	9 1/2	- 3 3/8
*Fleetwood^h	30 3/4	- 1 7/8

← See us at the NAHB show booth 3009.

← CIRCLE 24 ON READER SERVICE CARD

Company	Nov. 5 Bid/Close	Chng. Prev. Month
Golden West Mobile Homes ^b	19 1/4	+ 1
*Guerdon ^b	30	- 6 1/4
Mobile Americana	8 1/4	- 1 1/4
Mobile Home Ind. ^b	26	- 1 1/2
Monarch Ind.	7 1/2	- 1 1/4
*Redman Indus. ^b	25 1/4	- 3 1/4
Rex-Noreco ^b	16	- 3 1/2
*Skyline ^b	50 1/4	- 3 1/4
Town & Country Mobile ^b	10 1/2	- 2 1/4
Triangle Mobile	9 1/4	+ 1/4
Zimmer Homes ^b	16 1/4	- 4 1/2

Albee Homes	3 1/4	- 3/4
AABCO Industries	1 1/4	- 1/4
Brigadier Indust.	4	- 7/8
Environmental Systems	11 1/2	- 1
Hodgson Houses	6	- 1 1/4
Liberty Homes	18 1/4	- 5 1/4
Modular Dynamics	1 1/4	- 1
Modular Housing Systems	12 1/4	- 2 1/4
National Homes ^b	32 1/2	- 2 1/4
Nationwide Homes ^b	12 1/4	- 3/4
Shelter Resources ^b	9 1/4	- 2
Stirling Homex	18 1/2	+ 7/8
Swift Industries	3 1/4	+ 5/8

DIVERSIFIED COMPANIES

Amer. Cyanamid ^d	30 1/4	- 2 1/4
Amer. Standard (Wm. Lyon)	13 3/4	- 9 1/2
AVCO Corp. ^b	14 1/2	- 2 1/4
Bethlehem Steel ^b	23 3/4	- 2 1/4
Boise Cascade	16 1/4	- 7 1/4
CNA Financial (Larwin) ^b	23 1/4	- 1/2
Castle & Cooke (Oceanic Prop.)	15 1/4	- 1 1/2
CBS ^b (Klingbell)	44 1/4	- 1 1/4
Christiana Securities	123 1/2	- 11
Citizens Financial nd	12 1/4	- 2 1/4
City Investing (Sterling Forest)	17 1/4	- 2
Corning Glass ^b	175 1/4	- 44 1/4
Cousins Properties	25	- 1 1/4
Dreyfus Corp. ^b (Bert Smokler)	24 1/4	- 2 1/4
Evans Products	48 1/4	- 1
Ferro Corp. ^b	29 1/2	+ 2 1/2
First Gen. Resources	3 1/4	- 1
Fischback & More ^b	37 1/2	+ 1 1/2
Forest City Ent. ^b	24 1/4	- 2 1/4
Fruehauf Corp. ^b	34 1/2	- 7/8
Fuqua Indus. ^b	18 1/4	- 1 1/4
Georgia Pacific	46 1/4	- 6 1/4
Glasrock Products	6 1/4	- 1 1/4
Great Southwest Corp.	1 1/4	+ 1/4
Gulf Oil (Gulf Reston)	26 1/2	- 7/8
INA Corp. (M. J. Brock) ^b	50 1/4	- 2 1/4
Inland Steel ^b (Scholz)	27 1/2	- 2 1/2
International Basic Econ.	6 1/4	+ 1/4
International Paper ^b	31 1/4	- 1 1/4
Internat. Tel. & Tel. (Levitt)	51	- 5 1/4
Investors Funding ^b	10 1/4	+ 5/8
Killearn Properties ^{ba}	15 1/4	- 1 1/4
Leroy Corp.	2 1/2	- 1 1/2
Monogram Industries ^b	11 1/4	- 1 1/2
Occidental Petroleum (Occ. Pet. Land & Dev.)	12 1/4	- 2 1/4
Pacific Coast Prop. ^b	3 1/4	- 5/8
Perini Corp. ^b	5 1/4	- 1/4
Philip Morris	59 1/4	- 5 1/4
Prosher Corp.	3 1/4	- 1 1/4
Rouse Co. ^b	26	- 1 1/4
Santa Anita Consol. (Robt. H. Grant Corp.)	25 1/4	- 5
Sayre & Fisher ^b	2 1/4	- 1/4
Tishman Realty	17	- 2 1/4
Titan Group Inc.	3 1/4	+ 1/4
UGI Corp. ^b	19 1/4	- 7/8
Uris Bldg. ^b	14 1/2	- 1 1/2
U.S. Ply-Champion ^b (Lewers & Cooke)	31 1/4	- 1 1/4
Weil McLain ^b	24	- 1
Westinghouse (Coral Ridge Prop.)	88	- 8 1/2
Weyerhaeuser ^b	47 1/4	- 2 1/4
(Weyer. Real Est. Co.)	9 1/4	- 1 1/4
Whittaker (Vector Corp.) ^b	47 1/4	- 2 1/2
Wickes Corp. ^b	47 1/4	- 2 1/2

BUILDING PRODUCTS

Aican Aluminum ^b (Aican Design Homes)	17 1/4	+ 1/4
Ameron ^b	15 1/4	+ 5/8
Automated Bldg. Components	8 1/4	- 3 1/4
Bird & Son	75 1/2	+ 9
Brooks Scanlon	20 1/4	- 2 1/2
Ceco Corp. ^b	27 1/2	- 1/4
Certain-teed ^b	43 1/4	+ 6 1/4
Clow	22 1/2	+ 2 1/4
Colonial Sand nd	10	+ 1/4
Consolidated Rock	25	- 1 1/2
Flintkote Co.	31	+ 5/8
Florida Steel ^b	25 1/4	+ 1/4
GAF Corp. ^b	20 1/4	+ 1 1/4
Glen Gary Corp. ^b	7 1/2	- 1 1/4
Interpace ^b	27 1/4	- 1 1/4
Johns Manville ^b	39 1/4	+ 1/4
Keene Corp.	8 1/4	- 7/8
Kirsch Co. ^b	55 1/2	- 3/4
Knape & Vogt	46 1/2	+ 1/2
Lowe's Companies	69 1/4	+ 1 1/4
Masonite Corp. ^b	58 1/4	- 5
Mouldings Inc. ^b	6 1/4	- 3 1/4
National Gypsum ^b	20 1/2	- 2 1/4
NL Industries ^b	13 1/4	- 2 1/4
Norris Industries ^b	37	- 1 1/4
Owens Corning Fibergl. ^b	55 1/4	+ 2 1/4
PPG Industries ^b	40 1/2	- 3 1/4

Company	Nov. 5 Bid/Close	Chng. Prev. Month
Permaneer Corp. ^b	9 1/4	- 2 1/4
Philips Industries ^b	20 1/4	- 2 1/4
Pioneer Plastics ^b	9 1/4	- 3 1/4
Ply Gem Industries ^b	7 1/4	- 7/8
Potlatch Forests ^b	26 1/4	- 1 1/4
Pratt & Lambert nd	17	- 1 1/4
Reliance Universal	16 1/2	- 1 1/4
Republic Gypsum	10 1/4	- 1 1/4
Robertson (H. H.) ^b	21 1/2	- 2 1/2
Schott Indust. ^b	6	- 1 1/2
Scotty's Home Builders ^b	36 1/4	- 1 1/4
Sherwin Williams	44 1/4	- 1 1/4
Slater Electric A	5 1/4	- 2
Southwest Forest Indus. ^b	15 1/4	- 3 1/4
Standard Brands Paint ^b	74	+ 1 1/4
Supercrete Ltd. ^b	2 1/4	- 1/4
U.S. Ceramic Tile ^b	6 1/4	- 1 1/4
U.S. Gypsum ^b	65 1/2	- 4 1/4
Valspar Corp. ^b	4 1/4	+ 1/4
Vulcan Material ^b	23 1/2	- 3/4
Warner Co. ^b	44 1/4	- 5/8

APPLIANCES

Bernz-O-Matic	9 1/4	- 3/4
Hobart Manufacturing ^b	62 1/4	+ 3 1/4
Hoover Co.	48 1/4	- 11 1/4
Magic Chef ^b	39 1/2	+ 2
Maytag Co. ^b	38 1/4	+ 7/8
Tappan Co. ^b	24 1/4	- 2 1/2
Weibull Corp. ^b	3 1/4	- 3/4
Whirlpool Corp. ^b	89 1/2	- 5 1/2

CEMENT PRODUCERS

Alpha Portland ^b	13 1/4	- 1/2
American Cement ^b	7	- 7/8
California Portland nd	33	- 1 1/2
General Portland ^b	27 1/4	- 7/8
Giant Portland ^b	13 1/4	- 5/8
Ideal Basic Indus. ^b	16 1/4	- 1 1/4
Kaiser Cement & Gyp. ^b	14 1/4	- 5/8
Lehigh Portland ^b	14 1/4	- 1 1/4
Lone Star ^b	22	- 2 1/4
Louisville Cement nd	26 1/2	+ 1/4
Marquette Cement ^b	10	- 1/4
Martin Marietta ^b	17 1/2	- 2 1/4
Medusa Portland ^b	34 1/4	- 3
Missouri Portland ^b	28 1/4	- 2 1/4
Penn Dixie Cement ^b	8 1/4	- 1 1/4
Puerto Rican Cement ^b	10 1/4	- 7/8

CONSTRUCTION MACHINERY

American Hoist & Derrick ^b	11 1/4	+ 1/2
Caterpillar Tractor ^b	45 1/4	- 4 1/4
Clark Equipment ^b	41 1/4	- 4
Harnischfeger Corp. ^b	21 1/4	- 4 1/2
Kaiser Industries ^b	7 1/4	- 1 1/4
Deere & Co. ^b	42 1/4	- 3 1/4
Pettibone ^b	13 1/4	- 1 1/4

HEATING-AIR CONDITIONING

Borg Warner ^b	25 1/4	- 2 1/4
Buffalo Forge ^b	36 1/2	- 3 1/4
Carrier Corp. ^b	40 1/4	- 1 1/2
Coleman Co. ^b	23 1/4	- 7 1/4
Copeland Refrig. ^b	67 1/4	+ 1
Crane ^b	41	- 4
Culligan ^b	14 1/4	- 3 1/4
Fedders ^b	40 1/4	- 1 1/4
Intertherm Inc.	9 1/4	- 5/8
Masco Corp. ^b	68 1/4	- 1 1/4
Tecumseh	149	- 17
Trane Co. nd	70 1/2	- 1 1/4

HOME FURNISHINGS

American Furniture Co.	12 1/4	- 1/4
American Seating ^b	19 1/4	+ 1/4
Armstrong Cork Co. ^b	39 1/2	- 2 1/4
Bassett Furniture	52 1/4	- 1 1/2
Bath Industries ^b	44 1/2	+ 5
Baumritter Corp.	36 1/4	+ 2
General Fireproofing ^b	8 1/4	- 5/8
General Housewares	9 1/4	- 1 1/4
Giffen Industries	3 1/4	- 3/4
Hamilton Cosco ^b	6 1/4	- 1/2
Henredon Furniture	42 1/4	- 1 1/4
Hickory Furniture	11 1/4	- 1 1/4
Kroehler Mfg. nd	22 1/4	+ 2 1/4
Levitz Furniture ^b	99 1/4	+ 8 1/4
Lightolier ^b	10 1/4	+ 7/8
Ludlow Corp. ^b	27	- 7/8
Mohasco Industries ^b	36	+ 2 1/2
Ozite Corp.	12 1/2	- 2 1/4
Simmons Co. ^b	34 1/4	- 1 1/4

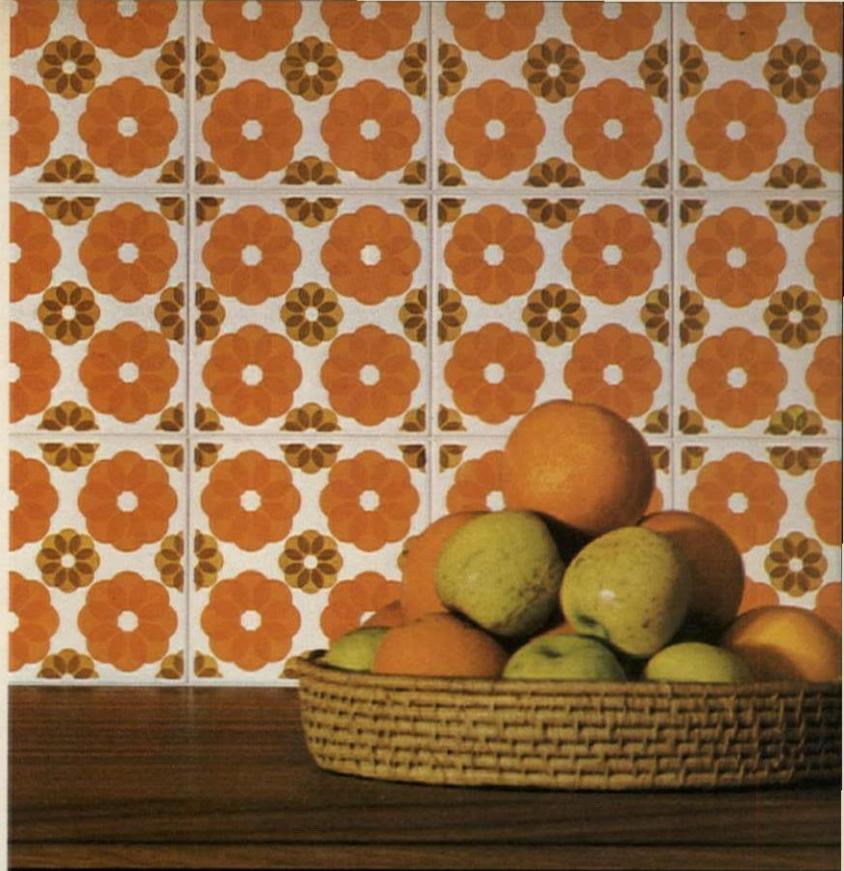
TOOLS & HARDWARE

Black & Decker ^b	71 1/4	- 3 1/4
Bliss & Laughlin ^b	16 1/2	- 3 1/4
Emhart Corp. ^b	31 1/4	- 3 1/2
Kikkok Corp. ^b	9 1/4	- 1
Scovill Mfg. ^b	49 1/4	+ 1 1/4
Skil Corp. ^b	19 1/2	- 7 1/2
Snap-On-Tools	68 1/2	- 2 1/2
Stanley Works ^b	29 1/2	- 2 1/2
Tool Research ^b	26 1/4	- 1 1/2

MISCELLANEOUS

Butler Mfg.	31	- 1 1/4
Dorr-Oliver ^b	12 1/4	- 2 1/4
Foster Wheeler ^b	21 1/4	- 2 1/4
Morrison Knudsen	16	- 1 1/4
Neptune Meter ^b	14 1/4	- 1 1/2
Otis Elevator ^b	39 1/4	- 7/8
Raymond Intl. ^b	10 1/4	- 1/4

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. *—Computed in HOUSE & HOME'S 25-stock value index. y—adjusted for 2-for-1 split. Source: Standard & Poor's, New York City.



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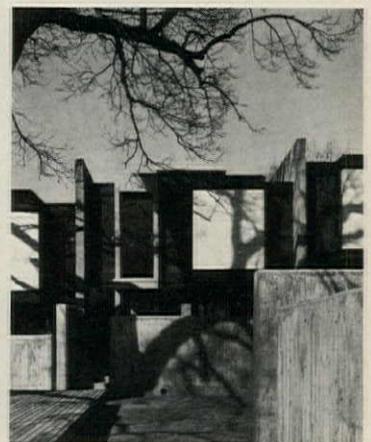
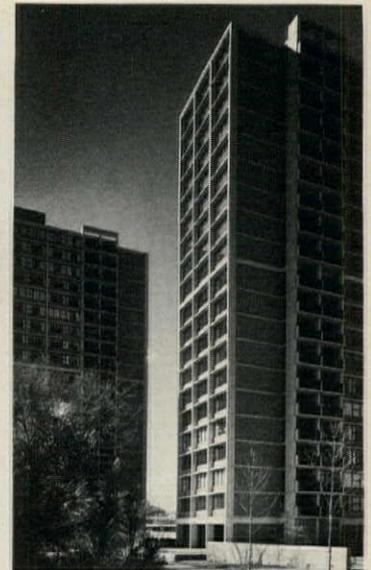
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CIRCLE 25 ON READER SERVICE CARD →



PHOTOS: GERALD CORNELIUS



Neighborhood courtyard (foreground at left in photo above) is enclosed on three sides by a tower and townhouses. Rent-range at the 396-unit project: \$140 to \$450.

Mixed design serves a dual purpose in a downtown project

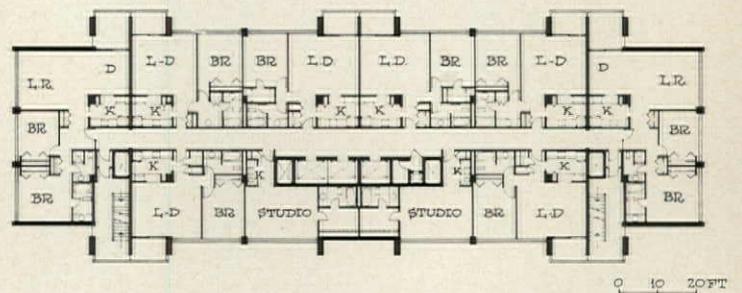
Besides providing a choice of high- or low-rise living, this tower-apartment and townhouse mix defines the first two neighborhoods of a projected eight-neighborhood plan in Tulsa's downtown urban renewal program.

Each of the two neighborhoods is a cluster plan of townhouses, one apartment tower, parking facilities, and open space (site plan, below). The towers, at the interior of the five-acre site, separate the neighborhoods and form a public

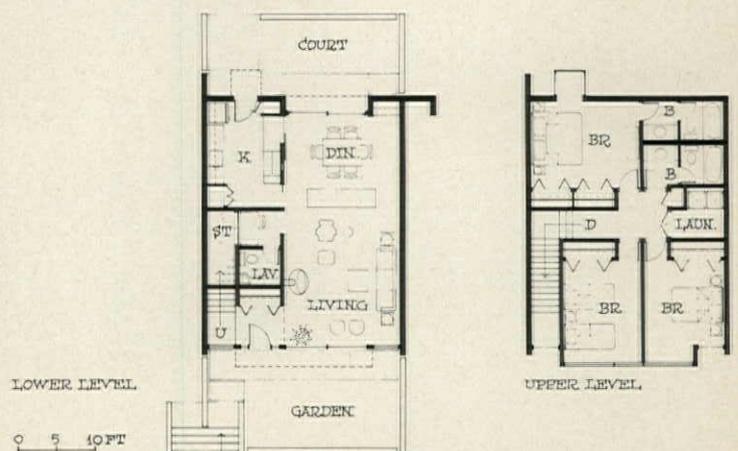
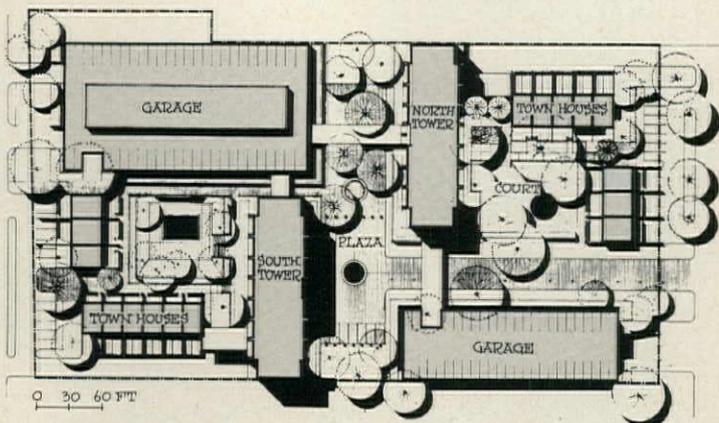
plaza between them. Tower apartments open to private balconies; townhouses, to patios.

Partially-below-grade garages, connected to the towers, serve high-rise residents. Perimeter parking is provided for the townhouses.

Pedestrian corridors connect the project to Tulsa's civic center and major employment area. H.A. Lott Inc. was the builder; Murray Jones Murray, the architect. The project is owned by Tulsa Center Development Co.



Tower floors have ten apartments: 6 one-bedroom units, 2 two-bedroom units, and 2 efficiencies. All apartments except the efficiencies have private balconies.



Townhouse plan features a 32' living and dining area running the length of the lower level, a convenient second-level laundry, and extensive storage space.

We completely pre-finished this door at the factory. All the builder did was put it in the opening and save \$20.

For years we've offered the world's largest line of high quality wood windows and patio doors. Now we can deliver them completely pre-finished. The inside of this patio door is a beautiful walnut (fruitwood and white also available). The outside is Marvin's XL-70, the factory finish that forms a tough chemical bond with the wood. Here's the clincher: with factory pre-finishing, the builder avoided the high cost of finishing the door on the job.

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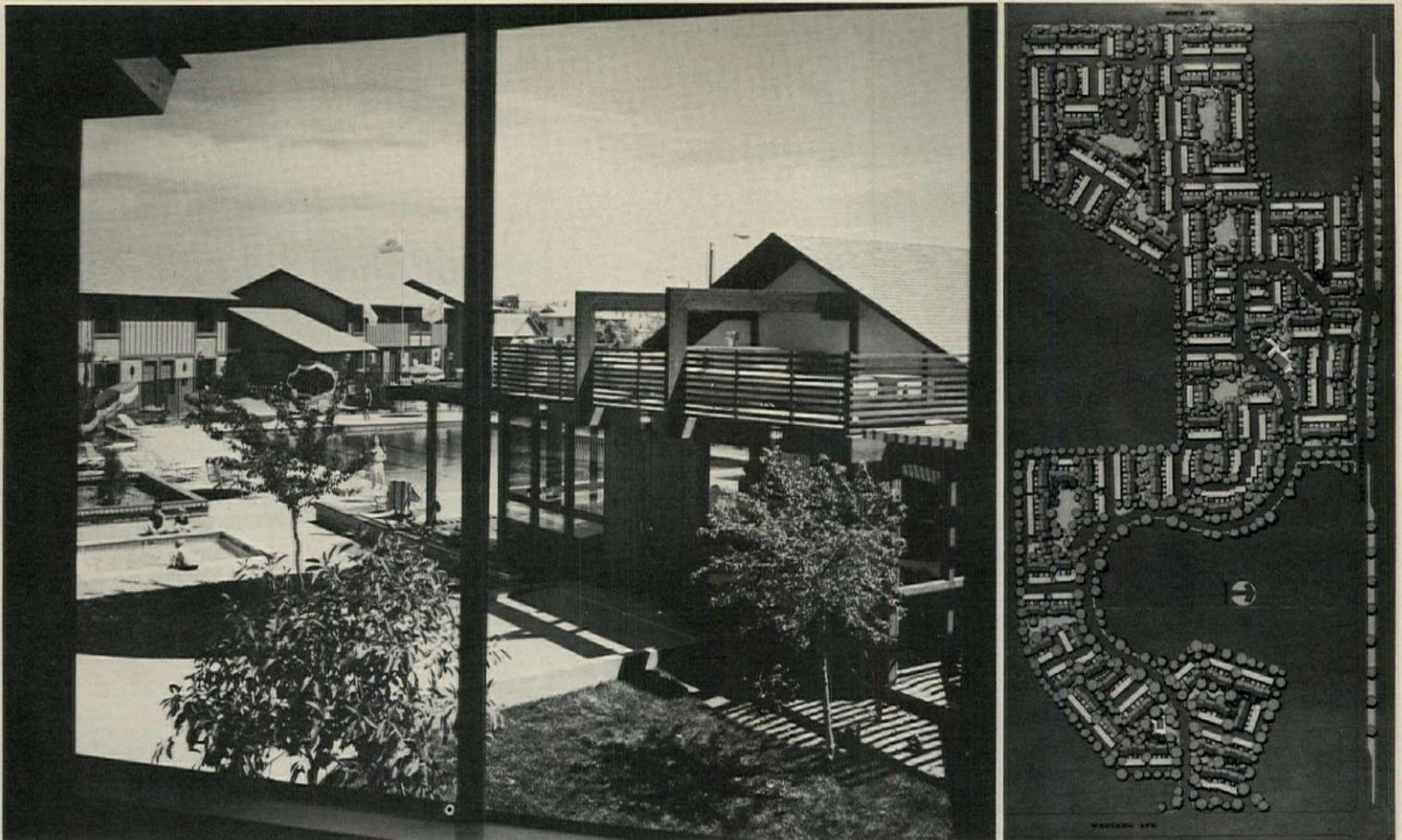


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27

CIRCLE 27 ON READER SERVICE CARD





Recreation center at Bradford Place (foreground, photo above) has large clubhouse, heated swimming pool. Site plan (above, right) is of original 407-unit section.

On target marketing: sales in this project are one year ahead of schedule

In fact, 60% of the 407 townhouse units at Bradford Place were sold 60 days after it opened in mid-March.

The reason: pre-construction marketing studies which not only helped Grant Co. of California set the sales record (and thereby move up the project's

completion date by 12 months), but also led the company to buy a contiguous piece of land for 89 additional units.

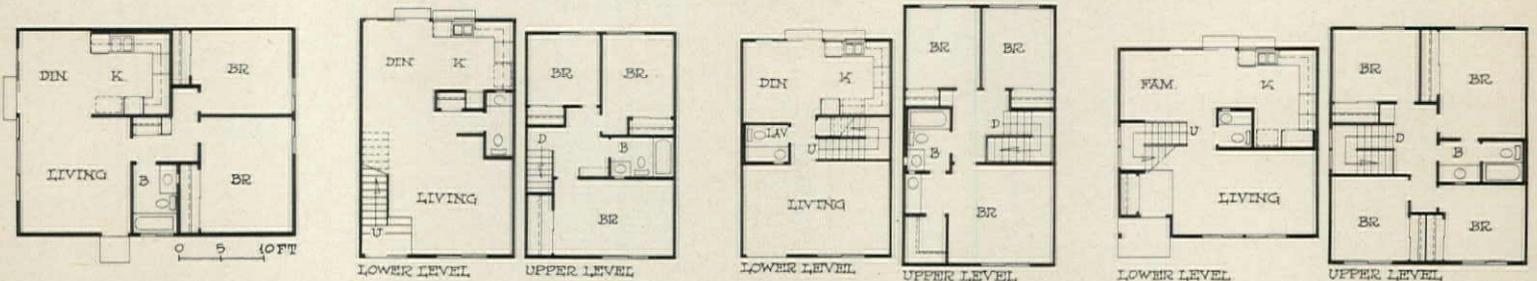
Marketing studies zeroed in on population, employment, and buyer profiles. The findings: the location was a strong growth area (Stanton, Calif.), and the

proximity of six freeways meant residents could easily reach jobs in nearby Los Angeles.

Potential-buyer analysis indicated that 90% would come from rented apartments, and that where husband and wife worked, combined monthly income would be \$1,050.

Actual figures for the 449 sales made by November 1: 90% former renters; combined income, \$1,068.

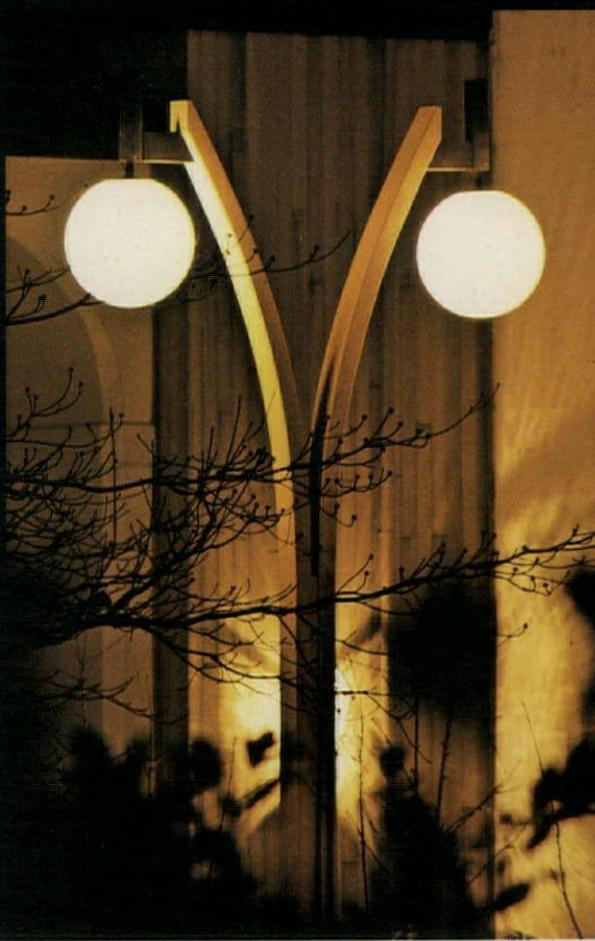
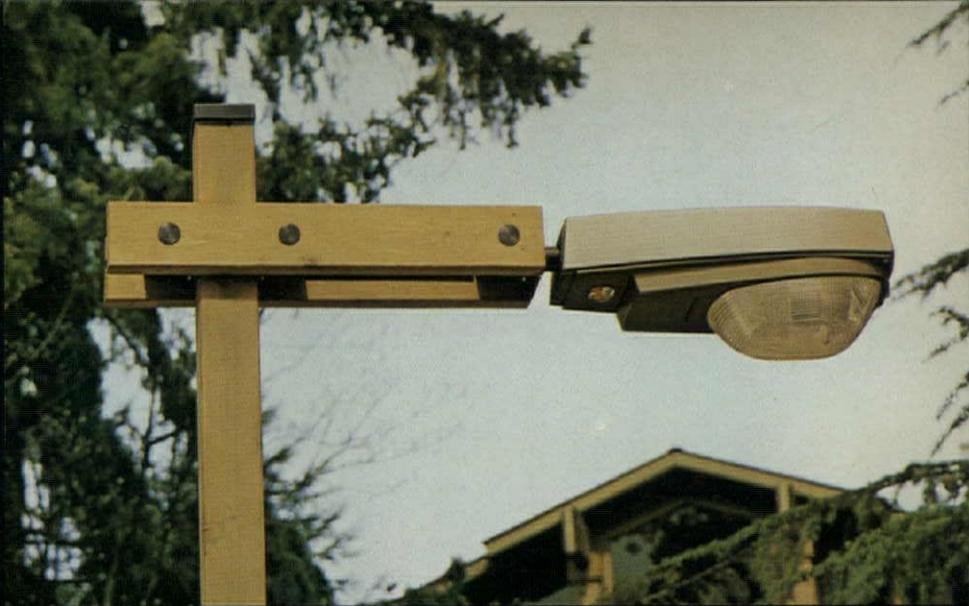
All units were financed with FHA and VA mortgages. Earl Kaltenbach & Assoc., AIA was the architect; Lent-Forsum Assoc., land planner.



Typical townhouses contain two-, three-, and four-bedroom units (floor plans). The \$21,250 to \$24,700 prices include carpeting, draperies, two-car garages.



Kitchen in three-bedroom, \$21,550 unit has a sliding window pass-through to the patio. Built-in range, oven, dishwasher, and disposer are included in all units.



Get a community closer to nature fast.

Weyerhaeuser® Lighting Standards are an environmental system with hundreds of combinations for residential areas, schools, shopping centers, parks and urban renewal projects.

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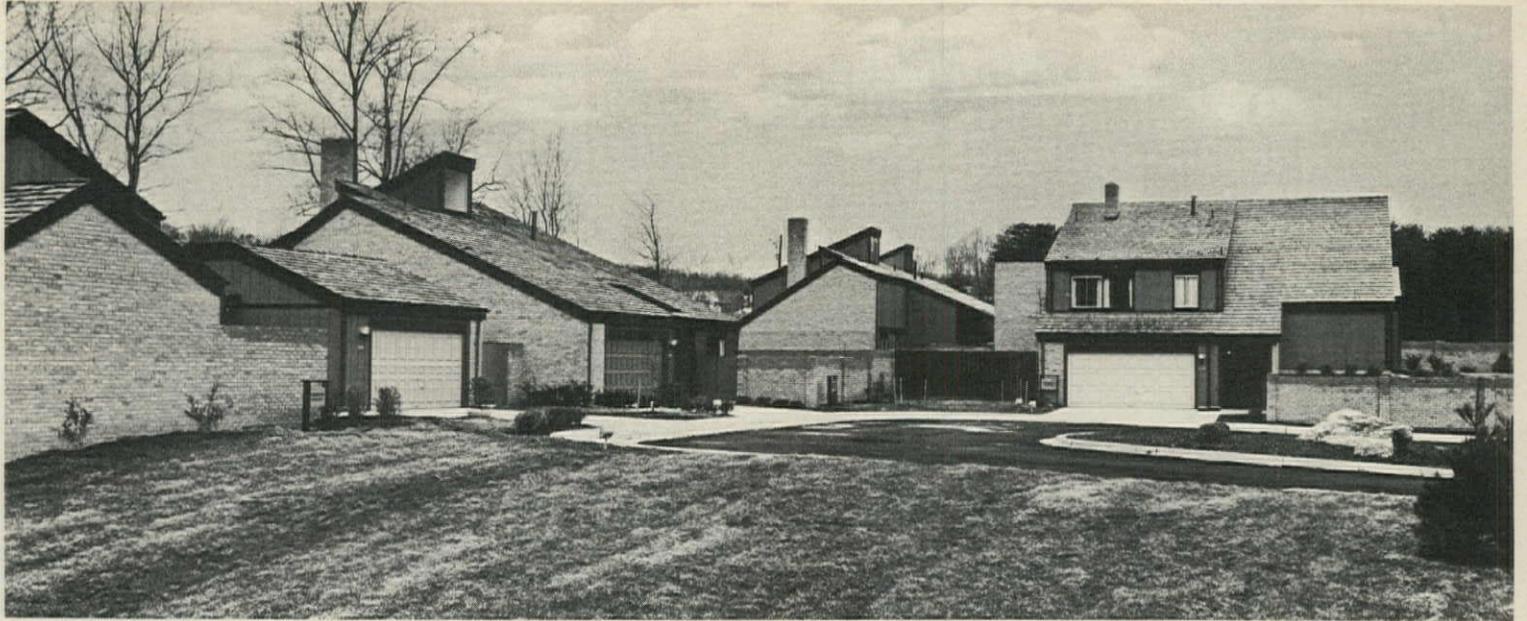
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Court-style grouping (photo above) is used throughout the 23.6-acre Drumaldry subdivision. Cost of the 104 four-bedroom houses (floor plan, below) is \$64,900.

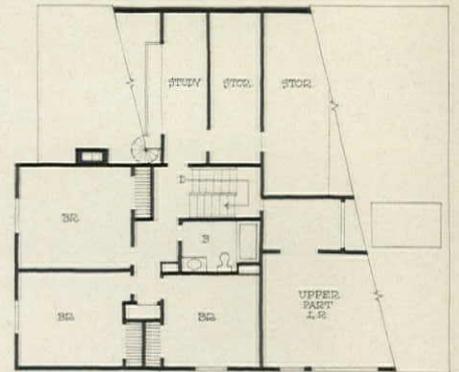
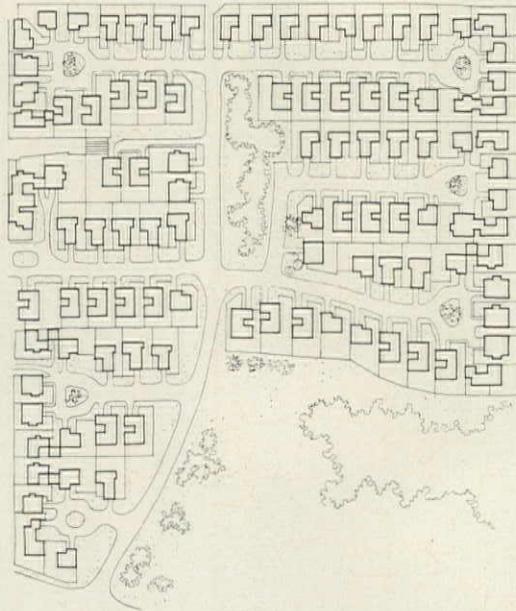
Large houses on small lots—but no privacy problem

The houses have 3,150 sq. ft. of living area, and lots are only 6,000 sq. ft. Yet there's no lack of privacy—inside or out—at this Bethesda, Md. project.

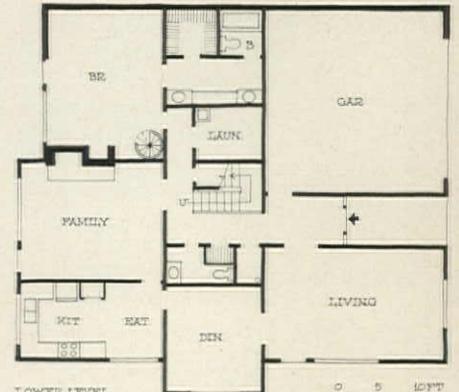
Why? Zero lot line siting at one side gives each house plenty of outdoor living space at the rear and other side. And the 6'-high masonry walls that surround each house permitted the use of large glass areas to open up rear interior spaces.

Homes are grouped in a series of courts reached from the single entrance (site plan, right). Although the court-style plan gives each group of homes a separate identity, community continuity is retained by using the same materials throughout. A central park area ties the community together. Miller and Smith Inc. is the builder-owner; David N. Yerkes & Associates, the architect.

PHOTOS: J. ALEXANDER



UPPER LEVEL



LOWER LEVEL

0 5 10 FT

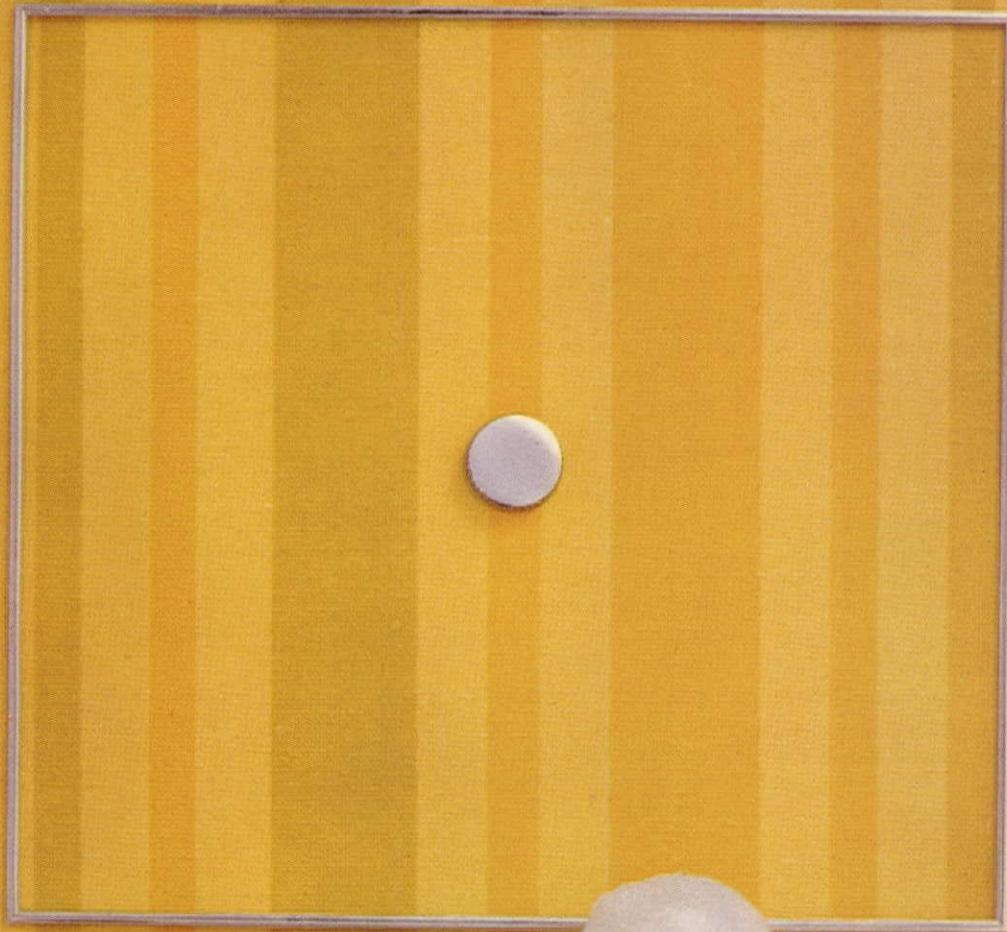


Entrance and zero lot line side elevations are closed off for privacy. Dormer over the central staircase brings daylight into the middle of the house.



Rear and opposite side elevations provide outdoor living space which opens into the living room, master bedroom suite, and family room (see floor plan).

*Introducing the exhaust fan
that doesn't stick out
like a sore thumb.*



Downright ugly, that's what kitchen and bath exhaust fans have been for too long! Now, meet The Front-Liners... first new concept in exhaust fan design in 25 years.

Gone is the grimy, open-metal grill. Instead, Front-Liners put up a solid front of alloy-reinforced polymeric material, so tough it can "take it" in a dishwasher. Fronts remove easily, can be papered or painted to match room decor, or left "as is." Side openings let Front-Liners pull more air with lots less noise. And for economy's sake, Front-Liners can even substitute for costly kitchen range hoods.

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CIRCLE 31 ON READER SERVICE CARD



"When you're dealing with tenants, there's no such thing as an automatic security system"

"Burglar-proof security," says the ad. "Self-locking, automatic, unbreakable, can't be forced, foolproof." So you buy the automatic lock and install it in the entrance door to an apartment building, and the very next day some tenant politely holds the door open while a perfect stranger enters the building and spends the rest of the afternoon inside, picking locks and burglarizing apartments. The lock may be automatic, but unfortunately the tenant is not.

Locks are basic elements in apartment security, and also the most vulnerable. The most a developer can do is to provide locks that can't be forced. This means hardened-steel deadbolts on individual apartment doors and accessory spring-bolt locks in the frames of sliding glass patio doors and windows which force burglars to break glass to open them.

Of course, deadbolts are dependent on the tenants' vigilance in remembering to use them, but even self-locking doors and windows depend on that.

Take, for example, the standard electric outer-door lock combined with individual apartment intercoms and released by remote control. A visitor arrives at the outer door to a building, finds the name of the tenant he is seeking on a directory and pushes the button next to the name. In many instances the tenant responds by releasing the door lock from his apartment without bothering to question the visitor through his intercom. A thief can always gain entry through this kind of lock merely by pushing buttons until some unquestioning tenant opens the lock. Or the thief has the alternative, equally as easy, of waiting until an arriving tenant unlocks the building door, catching the door before it closes, and slipping through.

Impressive-looking locks and so-called security systems make for excellent merchandising in today's law-and-order-conscious society. In our projects, we even seal off outdoor courtyards with self-locking gates. Prospective renters are duly impressed, but how much good the locks do is strictly up to the tenant after he moves in.

Periodic tenant reminders. We try to make our self-locking doors work by warning tenants not to let strangers enter their buildings or courtyards. We send them form letters periodically urging them to check out all visitors on their intercoms before releasing locks and to try to avoid entering their buildings when a stranger is

lurking about the door. We admonish them: "You wouldn't let a stranger slip into your apartment behind you, but many of you think nothing of permitting strangers to enter your building. If this happens despite your efforts to prevent it, at least alert one of the managers that a suspicious person is at large in the building."

Locks actually have three strikes against them: Tenants don't use them conscientiously, lock-pick artists can open the best of them, and not everything can be locked up.

Guards can serve a dual purpose. Even though locks are the basic element in apartment security, they can't take the place of personal surveillance and policing. A guard isn't foolproof, but at least his effectiveness doesn't depend on the tenants.

We use mobile guards primarily for things that can't be locked up, e.g., cars. We can secure underground parking areas in high-density complexes with one or two electronic garage doors activated by transmitters in tenants' cars. But in a low-density garden apartment project there are so many parking areas and entrances that locked gates aren't economically feasible.

We protect open parking areas by having them patrolled from an hour or two after dusk to just before dawn seven days a week. Whether the guard carries a gun is optional, but he should have a trained dog. A vandal or thief hiding under a car can elude a guard, but not a dog. Dogs can cover more ground faster than a guard, and thus lend a high degree of efficiency to parking area patrol.

Private guard services aren't cheap, but you can get more than your money's worth out of them. For example, you can use guards for extra jobs like serving eviction notices and reporting misparked cars to your tow-away service. Also, you can use a mobile guard for more than one project to amortize the cost over several hundred apartments.

We have a single guard patrol up to three projects within a mile or so of each other. He follows an erratic schedule, always changing his sequence and sometimes doubling back to a project he has just left. If he is needed in a hurry, the apartment managers can raise him by walkie-talkie, or his central dispatcher can reach him by radio.

You can simplify a guard's surveillance schedule by locking up areas that are made-to-order for assaults and robberies

—recreation buildings and laundry rooms—from 11 or 12 p.m. to 8 a.m.

A guard also benefits from the help of a good tow-away service. Aside from mis-parked cars being kept out of tenants' assigned spaces, they also should be kept out of fire truck and ambulance lanes. To make the tow-away man's job easier, we give each tenant a windshield sticker displaying the number of his assigned space, and we paint the space number in a prominent overhead location on a beam or fascia board rather than on the pavement.

We also send recurrent reminders to tenants about the seriousness of leaving cars parked in the middle of access lanes.

The project manager's function. While the tenants themselves are the biggest flaw in the tenant security measures, careless apartment managers also contribute to lapses in security. Many managers are lax about the use of common storage rooms. The developer may equip the rooms with excellent locks, only to have them supervised by a manager who turns over the keys to any tenant who wants access. Court claims for items missing from common storage rooms are too frequent to permit this kind of mistake. We insist that tenants never be permitted to place or retrieve possessions in a common storeroom except in the company of a manager; and we require that every item stored must be tagged and inventoried. This cuts down on disappearances—and alleged disappearances—of tenants' stored possessions and prevents exaggerated claims.

A naïve manager may go even further. The ultimate mistake is giving the key to an occupied apartment to a prospective renter and letting him inspect it by himself. This should be a number-one "don't" in any training program for managers.

One of the toughest security problems is supervising occupied apartments in complexes that are under construction. The need for final adjustments and hookups in new apartments means that a series of independent subcontractors must continue entering apartments after tenants have moved in. Normally, an apartment manager is called upon to accompany the contractor, but we can't spare a manager's time for this. Instead, we've found the most efficient way to meet this security need is to hire a full-time person during construction to do nothing but accompany subcontractors while working inside occupied apartments.

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your signature—or for continuous showing on site! The U/R fiberglass bath gives all your properties a terrific plus. It's the fastest selling feature in modern homes today. So let Universal-Rundle help you tell the world that you're the builder in your area who's way out front. Send in the coupon now!

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CIRCLE 80 ON READER SERVICE CARD



how this ad in House & Home paid for itself 76 times over in actual sales

\$265,500 in sales have been traced directly to readers who used House & Home's reader service card to request more information on Universal-Rundle's Fiberglass Bath of the Future.

Not counting action taken by readers who used Universal-Rundle's coupon, actual sales triggered by the ad totaled 76 times the cost of the ad.

In addition to actual sales, the Universal-Rundle ad resulted in \$231,300 in units **specified** . . . \$107,550 in units readers are **planning to purchase** . . . \$61,050 in units **approved** . . . \$304,200 in units **recommended** . . . and \$2,487,300 in units readers are **still investigating** for specific projects.

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Full documentation on how the Universal-Rundle ad paid for itself 76 times over is readily available from

McGraw-Hill's marketing and management publication
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330 West 42nd Street, New York, N. Y. 10036

PRODUCTS '72

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a timesaving guide to the 1972 NAHB exhibits

Builders attending the big sprawling NAHB convention in Houston next January will face a bewildering array of products, new and old, spread out over a huge exhibit area. Products '72 has been created by House & Home and its advertisers to organize your shopping tour of this impressive display. Copies will be available free at the show.



see the best, newest, most exciting

This pocket sized guide to the exhibits is a collection of building products, materials, tools and equipment . . . in each case especially selected by the exhibitors themselves as being the best, the newest, the most exciting they will be offering in 1972. Each product will be handsomely illustrated in full color, described in detail and identified by company and booth number.

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Be sure to attend the NAHB Convention in Houston: January 23-27, 1972

LETTERS

Modular Breakthrough

H&H: In your October article, "The problem of suppliers is slowing down the real modular breakthrough," there were several references by modular manufacturers to suppliers not developing "a lot of things for us" and to the fact that they "need to buy components that are as complete as possible." In the next breath, these same people complained about prices and delivery.

The simple facts are that virtually every modular manufacturer has different specifications, manufacturing methods, and material requirements. They are not used to, and can not manufacture, a product of a custom nature—particularly in a speculative, low volume, per account basis.

Mobile home manufacturers have achieved a high degree of standardization and consequently enjoy excellent service, low pricing, and constantly improving products.

In my firm's opinion—and every other industry supplier's I know—the modular builder will never command the service, price, and product mix he desires and deserves until a degree of standardization is reached.

I think your article was exceedingly unfair to the suppliers

of this industry, and I am sure that there are many hundreds of others that would agree with me.

JAMES LONG,
marketing manager
Gossen Corp.
Milwaukee, Wis.

The views stated in the mentioned article are those not of HOUSE & HOME, but of a number of people actually engaged in producing modular housing. As one of them pointed out in the story, it may be a little unrealistic to expect the building product industry to create special products for modular housing which will probably account for fewer than 50,000 units this year.

It may also be unrealistic to expect modular housing to reach the degree of product standardization of mobile homes. As permanent housing, which mobiles aren't, modulares will have to provide a much wider variety of sizes, types, and prices of housing. However, if modular housing grows to the extent that most people expect, there should be enough to justify considerable standardization in spite of this necessary variety—ED.

Waste based brick

H&H: Your September article, "In-

dustrial waste: a new source of low-cost bricks and blocks", failed to mention one significant fact: None of the products mentioned can be called brick according to the Federal Trade Commission. FTC has ruled that only building units made of clay can be called brick.

It is interesting that an apparently growing number of people are attempting to emulate brick.

The cost savings you note in favor of the new ersatz building products are a little deceptive. Costs, you say, range from \$17.50 to \$20 per 1,000 for the waste-based bricks compared to "roughly \$25 to \$40 for conventional bricks."

Even if this cost differential is real, it amounts to no more than \$200 in the price of an average house.

Brick, of course, bases its quality and efficiency on two principal factors—its durability and its beauty. Both depend on the characteristics of clay, the element the new products eliminate.

In view of this, we think the idea of using wastes to make building products to compete with brick deserves a great deal more skepticism than your article exhibits. However, if someone should develop a building unit that does not use clay, is more efficient than brick, and is less expensive, then

our industry will welcome it—and probably begin producing such units on its own.

R.W. OTTERSON
executive director
Structural Clay Products Institute
McLean, Va.

The captions identifying insurance consultants James E. McNiff and William P. Davis III were inadvertently transposed in the November article "Everything you always wanted to know about builders' insurance," (page 84). The editors regret the error and submit the following photographic correction:



WILLIAM P. DAVIS III JAMES E. MCNIFF

The photo credit was inadvertently omitted from HOUSE & HOME's November presentation of the vacation house design by architect H.L. Owen. Pictures of the house, a First Honor Award winner in the 1971 Homes for Better Living program, were taken by John Zimmerman for American Home magazine—ED.



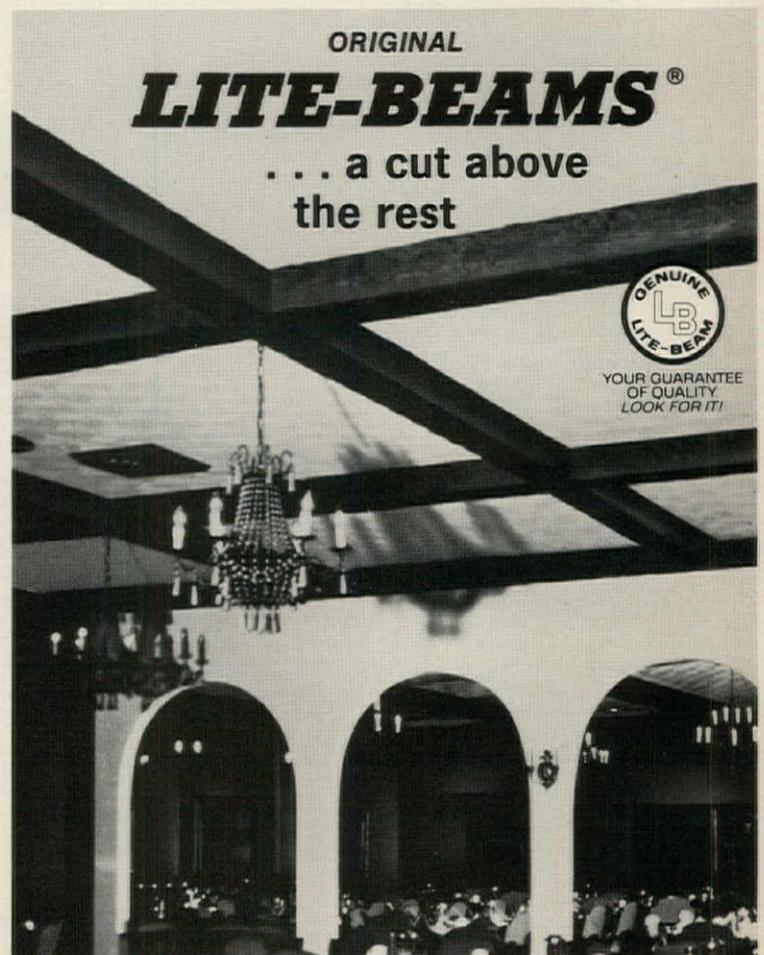
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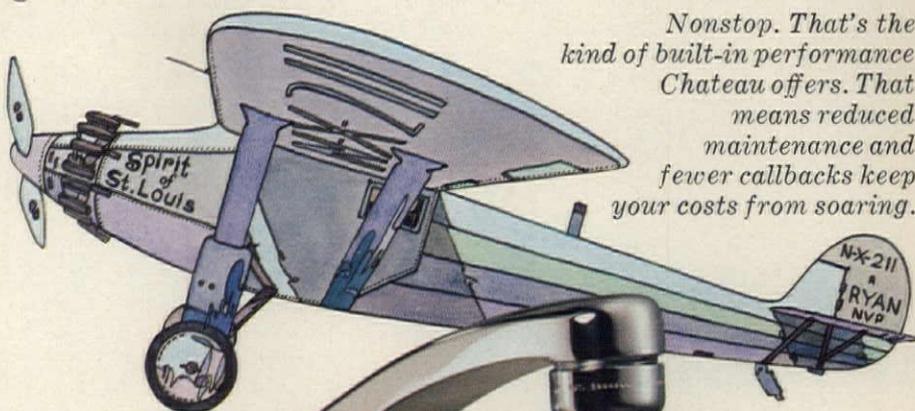
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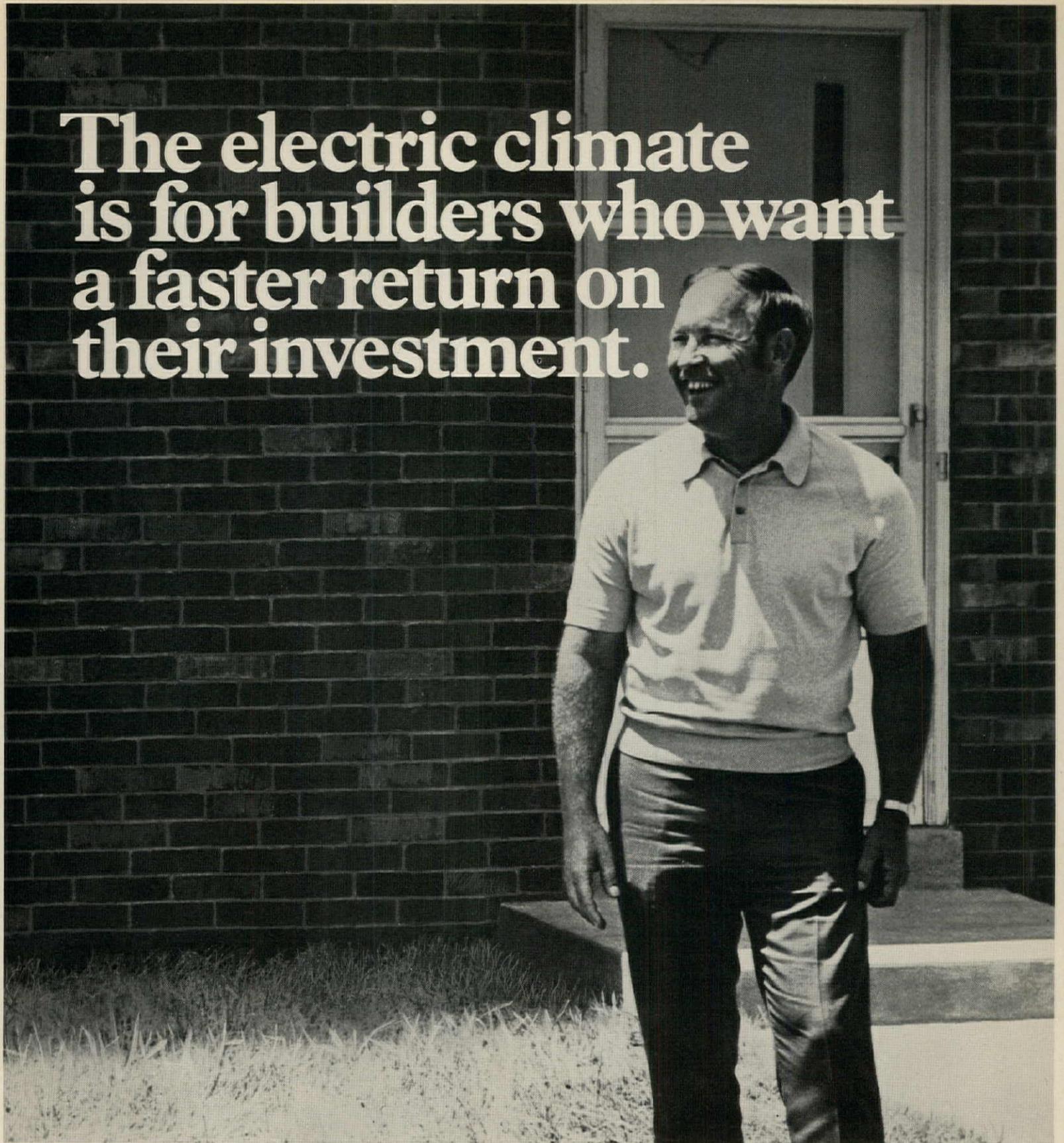
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stall. In fact, it speeds up my construction by two weeks to a month in the winter! So I save time *and* labor costs. How do they sell? As fast as I can build them! I've got 50 more units going up now!"

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House & Home 1971 Directory of Modular Housing Producers

Pandemonium—the only word to describe what happened the week after House & Home published a 14-page study on "Who's building the modulares and how many?"

We were literally swamped with urgent telephone calls, special delivery letters and personal visits from readers asking for extra copies of the June issue, additional reprints of the modular story, and more detailed information about the leading modular producers.

To meet this strong demand, the editors of House & Home have now put it all together in a handy, pocket-size, four-color **DIRECTORY OF MODULAR HOUSING PRODUCERS**.

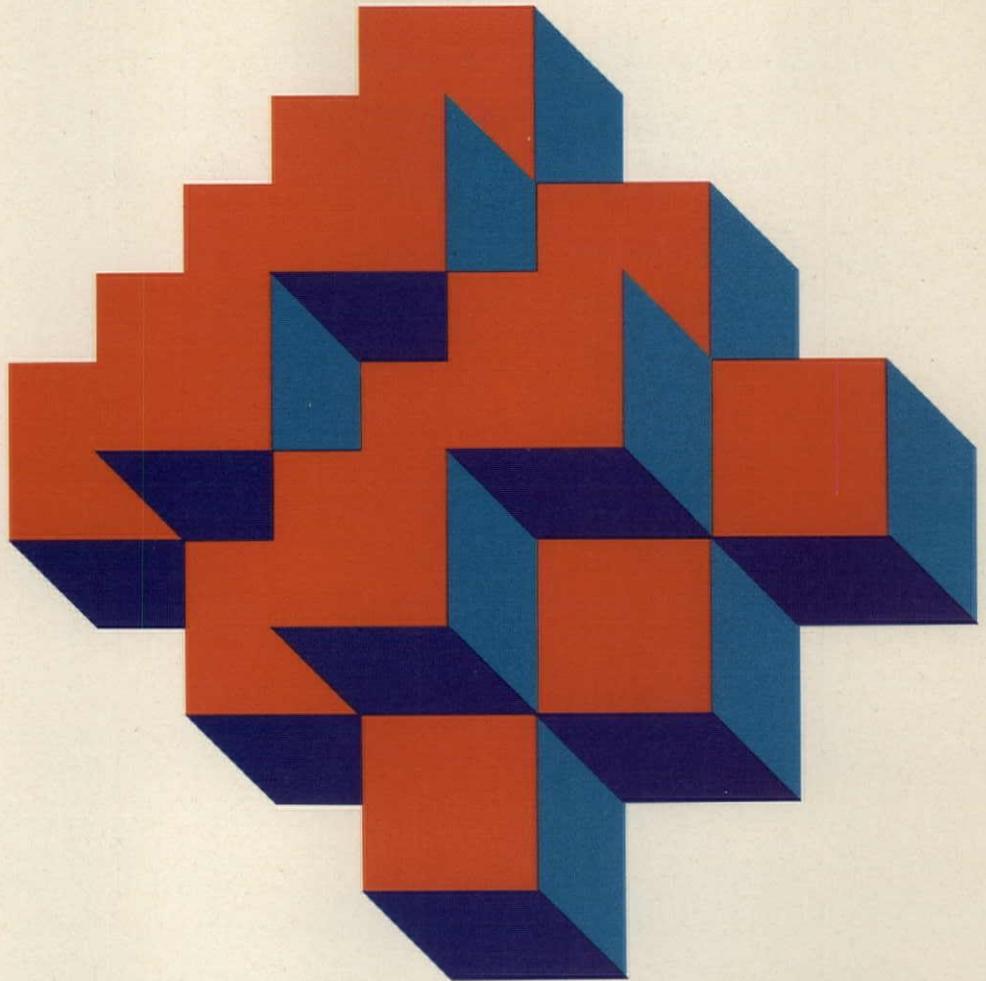
With additional firms added right up to press time, House & Home's 1971 Directory packages the modular marketplace for suppliers, producers, and the wide spectrum of builders, realtors, developers, dealers, distributors, government and financial people who want to do business with each other.

The 1971 **DIRECTORY OF MODULAR HOUSING PRODUCERS**

House & Home

**Directory
of Modular Housing
Producers**

1971



includes the following data on virtually every company active in modular housing production:

Modular Manufacturers: Company Name/Address, Names of Principals, Parent Company Affiliation.

1970 Modular Production: Single-Family Units, Multi-Family Units

Factory Data: Number of Plants, Location of Plants, Total Plant Capacity.

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CIRCLE 40 ON READER SERVICE CARD

What's in a name?

At last, someone has made a sensible start toward defining the many aspects of industrialized housing. Now let's carry it a little further

Let historians note that at least one milestone was reached at the industrialized housing convention (INBEX) in Louisville last month. The National Association of Building Manufacturers, co-sponsors of INBEX, took the long-overdue step of saying in clear English just what many of the words used in describing so-called industrialized housing really mean.

This is no small achievement. Up to now we have all been wallowing in a semantic swamp of distorted terms, often promulgated by public relations people, consultants, promoters, and even—heaven help us—magazines, all of which have vested interests in their own particular definitions.

What NABM has put forth it calls an "industrialized housing glossary of terms," and it should lead us to at least part way out of the swamp.

There are an even dozen terms in the glossary, and there isn't room here to report them all. But a few examples should suffice.

Take the term component, which has been used up till now for everything from a 2x4 to a complete module: NABM says it is "an assembly or sub-assembly of a building such as a roof truss, wall or roof panel, or plumbing wall." Simple, clear, unmistakable.

Module is defined as, among other things, a three-dimensional section of a building which, when completed, will meet all specifications of conventional, permanent, on-site construction. This eliminates the confusion caused by mobile home people, who sometimes like to call their double-wides modular houses.

Mobile homes are described as factory-assembled, nonpermanent structures which need not comply with prevailing building codes, usually financed as chattel, and taxed as a vehicle or personal property. What could be more precise?

We'd like to offer two suggestions, one minor and one major.

First, we'd like to retain the term sectional house to describe single-family modular housing. It's clear, commonly accepted, and if modular housing is understood to refer only to multifamily housing, there will be much less chance of confusion. This

would be a change from NABM's glossary, which refers to sectionals as "a form of single-family modular housing."

Second, we'd like to confront this term industrialized housing. It's been used to describe everything from a stick-built house with trusses to a modular to a mobile home. Even NABM skirts the issue by calling it a form of manufactured housing, which in turn is described as "any and all types of buildings produced in a factory to be transported to a site for erection or placement."

Some people have even gone so far as to say that any housing that includes any components built in a factory is industrialized housing.

This is absurd. Such a description covers literally every house built today, and for that matter, the last twenty years. And it renders meaningless a term—industrialization—that might otherwise be very useful in describing certain methods of construction.

We offer two possible definitions of the term.

Let it refer to modular housing. This is the only really new method of house production that has come along since World War II; all other changes have merely involved increased componentization—windows, pre-hung doors, trusses, panels, etc. The basic method of assembling the house on the site has remained unchanged. Modular housing, on the other hand, is qualitatively different in that it moves almost all construction except the foundation off the site and into the factory.

Or . . .

Let industrialization refer to close integration of the building process, whether on the site or in the factory. The article immediately following this page is a very good example of such industrialization—a combination of stick-building, component building, and component manufacturing which may well be the most efficient operation in the country today.

Just for the record, until some other agreement is reached on this question of semantics, we're going to use the terms modular housing and factory-built housing interchangeably. It's not perfect, but at least you'll know what we're talking about.

MAXWELL C. HUNTOON JR.

IS THIS OPERATION THE ULTIMATE IN INDUSTRIALIZED BUILDING?

As far as single-family housing is concerned, it just may be. The plant shown on the facing page is providing Fox & Jacobs of Dallas with parts and panels for over 2,000 houses a year. More to the point, it is part of a system that has held F&J's hard costs (without land, financing, overhead, or sales expense) to well below \$9 a sq. ft., and enables the company to sell even its smaller houses (H&H, Sept.) at the \$14-a-sq.-ft. level.

"Our prices today are actually lower than they were three years ago," says Dave Fox, president of F&J. "And we're including more amenities than we did then, too."

To those who think of industrialization as automated machinery and 3-d modules, F&J's operation will come as something of a shock. It is based largely on standard power tools and simple systems. But while most so-called industrialized systems—including modular—involve only the assembly of components, F&J actually manufactures many of its high-cost components, like cabinets.

"On the other hand," says Bud Krodel, F&J's operations manager, "if we can buy a component cheaply enough, we don't make it. For example, we buy all our roof trusses, counter tops, and interior and garage doors."

But while the plant operation does cut direct costs, its biggest contribution is indirect: it allows F&J to run on an amazingly tight and efficient site schedule. The first component load from the plant includes everything needed to close in a house; the second load, which goes out 14 days after the first, brings in everything for finishing. From the finished foundation (a 6-7 day job),

only 18 working days are needed to complete the house. This kind of control is especially important because F&J currently is building at a dozen sites.

"We think of our plant not as an end in itself, but as part of a system," says Fox. It gives us greater capacity; we could probably double our production now without increasing our fixed costs. "Because we can deliver fast, it helps our marketing. Because we can warehouse, we have more flexibility in purchasing. And because we can offer year-round employment, we get and keep better people.

"We don't look at ourselves as just retailers now, but as manufacturers as well."

Furthermore, says Fox, the relative simplicity of the plant would make it possible to change over to modular production, or even mobile homes, should either become desirable.

The next seven pages describe the basic elements of F&J's industrialized system. They include:

- *The flow of materials and components.* Materials come into the plant area and must be stored, moved into manufacturing areas, stored as components, then moved out to the site. All of this must go smoothly, since much of F&J's system depends on having components for 40 houses, or three days' production, in inventory all the time.

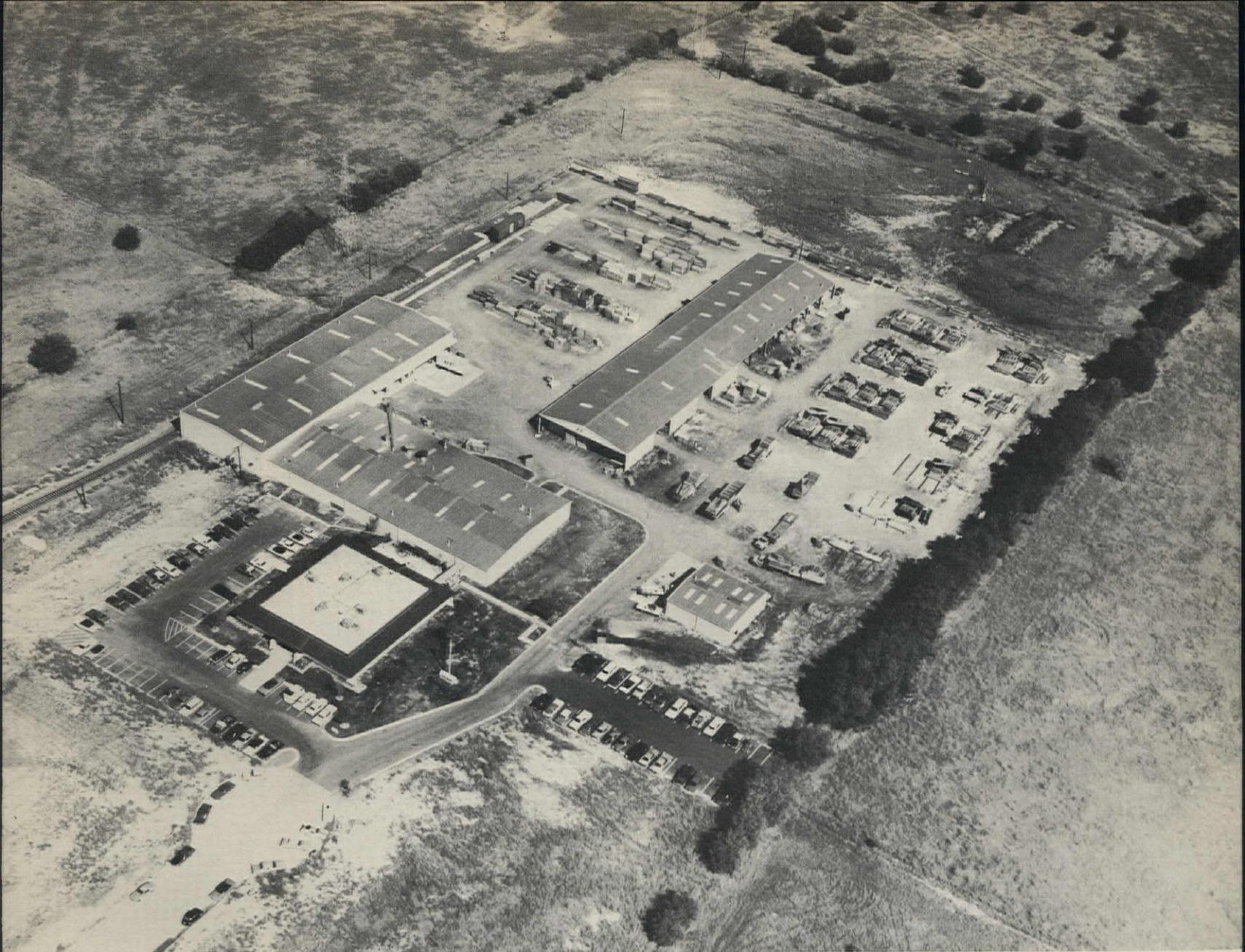
- *Panel construction.* This includes all exterior and interior wall panels, plus sub-assemblies, like window frames, which are later built into the panels.

- *Cabinet manufacturing.* Not just kitchen cabinets and vanities are built here, but also various indoor and outdoor trim elements.

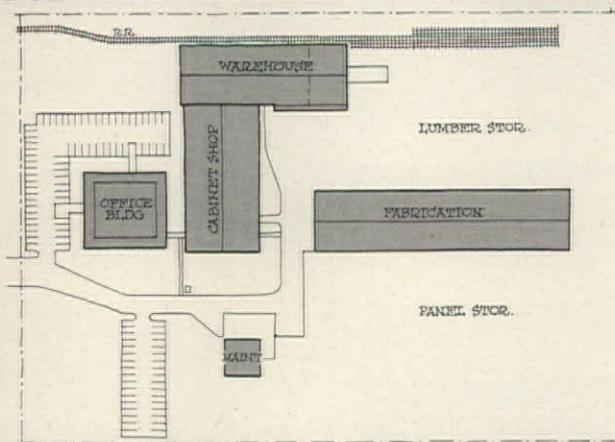
F&J's president Dave Fox, left, is shown in his company's panel fabricating plant with Bud Krodel, operations manager and the man responsible for the entire warehouse and manufacturing facility.



PHOTOS: EAMON KENNEDY



Plant complex, also shown in the site plan at right, sits on 15 acres in Carrollton, a Dallas suburb. It is on a rail siding that can accommodate 11 boxcars, and it includes a warehouse, panel plant, cabinet shop, and office building. There is also outdoor storage space for both raw materials and finished components. Warehouse has 18,000 sq. ft. of space; panel plant has 26,000; and cabinet shop, 17,500, plus a 2,500-sq.-ft. wing for extra supplies and an employee lunchroom. There are three acres of paved outside area, and another five acres for future expansion. Total cost of the facility was \$1 million.



Office building and plant are shown here from street. F&J has had a fabricating plant for 15 years; this new facility was built last year because the company, which used to buy land in about 100-acre parcels this year acquired 1,855 acres in five parcels and needed increased production capability.



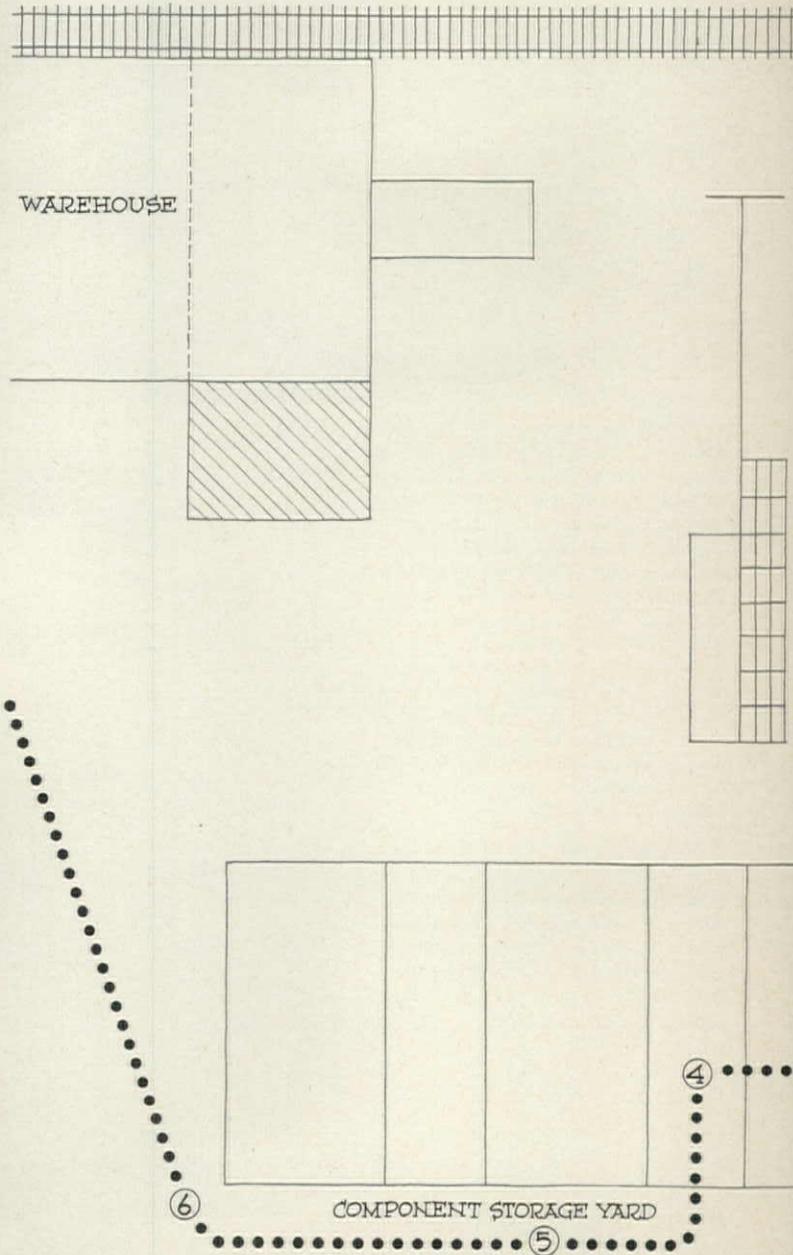
MATERIALS FLOW: FROM BOXCAR TO SITE



1 Lumber is taken off boxcar with forklift. One man can unload a carload of studs in about 30 minutes; formerly, done by hand, it took four days.



6 Components are unloaded at site. Special ground-hugging float, 40' long (legal limit is 44'), carries two complete small houses.



5 Panels are placed on float. Staging area holds about 40 houses—slightly under three days' production at present rate of 15 a day.



② Bundle of studs is put in raw material inventory in yard area. Building visible in background is panel fabrication plant.

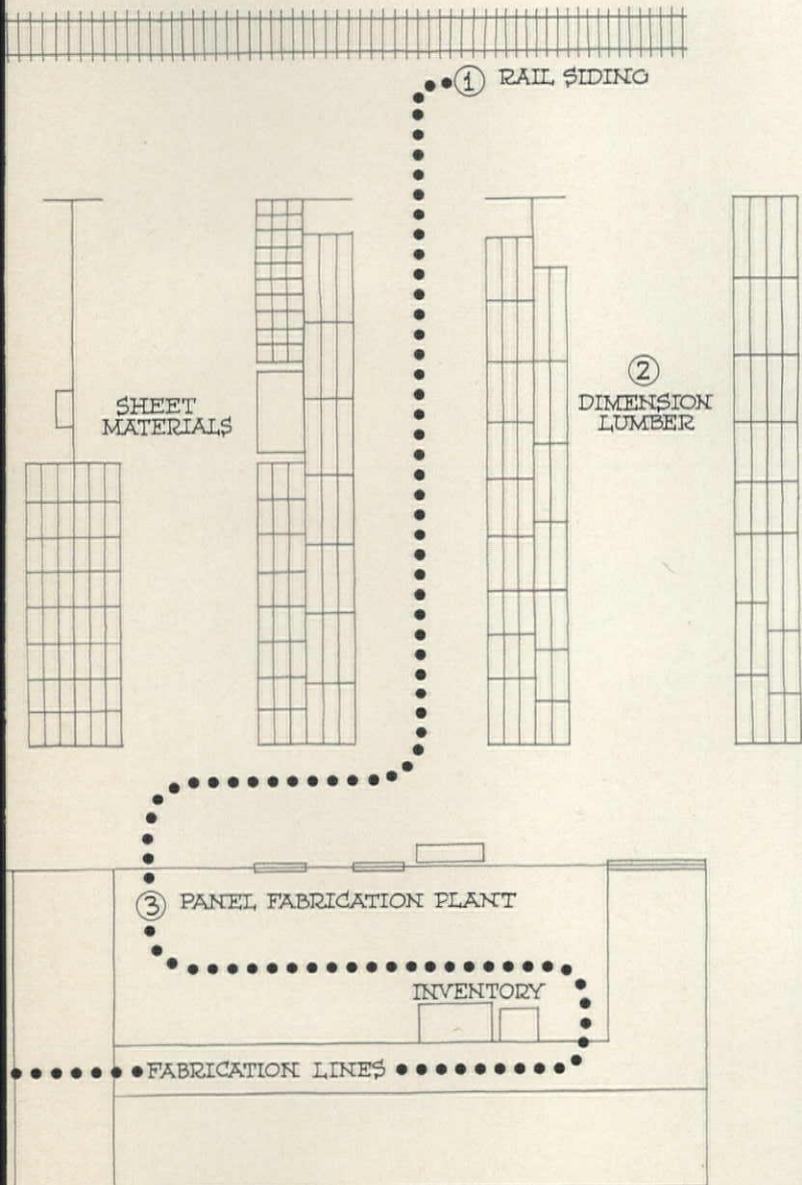


③ Load of sheathing is delivered by forklift to panel plant. From three to five weeks inventory of raw material is always kept on hand.

PHOTOS: EAMON KENNEDY



④ Interior panels are picked up for moving to staging area. The company plans to install overhead cranes at the ends of the production lines.



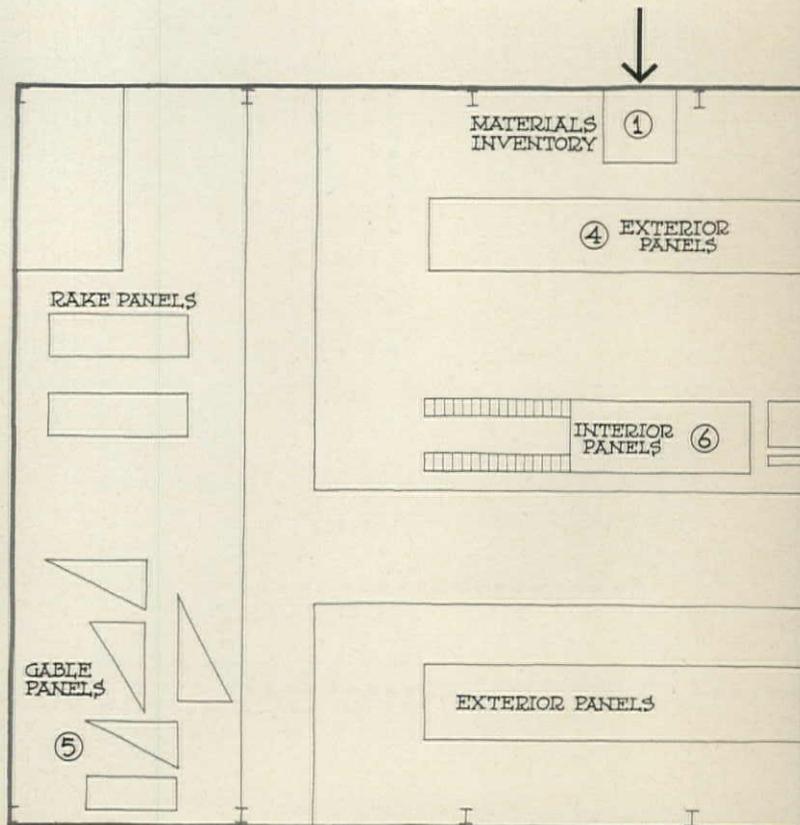
PANEL PLANT:
SIMPLICITY IS
THE RULE



1 Studs are delivered through door at right, sheathing through door at upper left, right next to their points of use.



6 Pneumatic nailers are shop's basic power equipment. Panel operation has 38 employees, 18 of them on the assembly line.



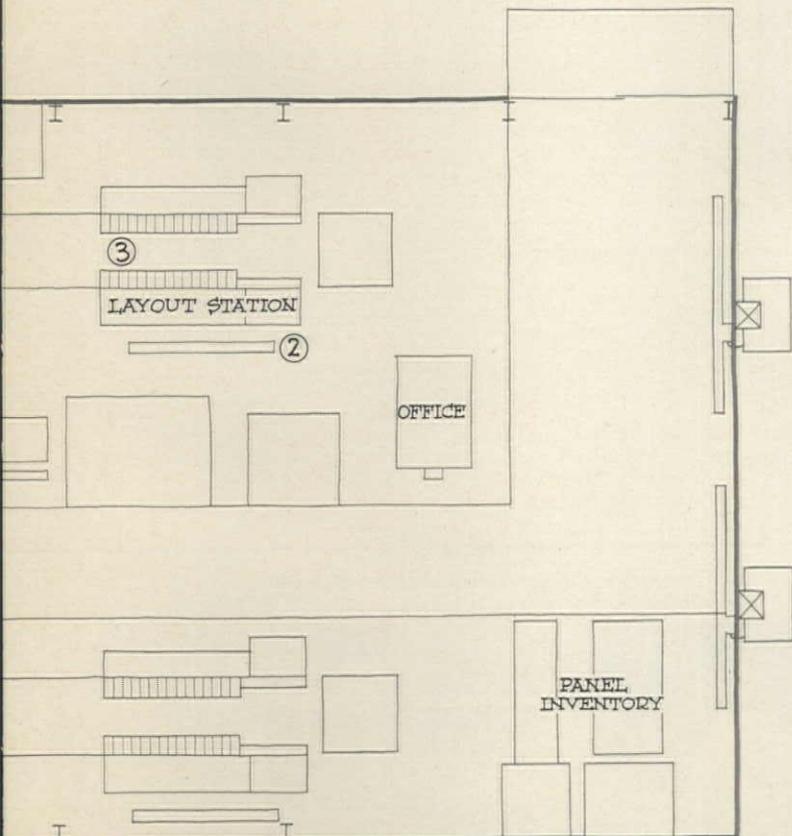
5 Gable panels are put together on this table. An average of five men work here, turning out about 60 panels every day.



2 Layout operation establishes lengths of panels, positions of openings, and special features. It stays half a day ahead of production line.



3 Subcomponents—in this case, window frames—are made off the main panel assembly line, then installed in panels at this station.



4 Subcomponents having been built in, corner braces are let into end panels. Framing is held by hydraulic table till sheathing goes on.

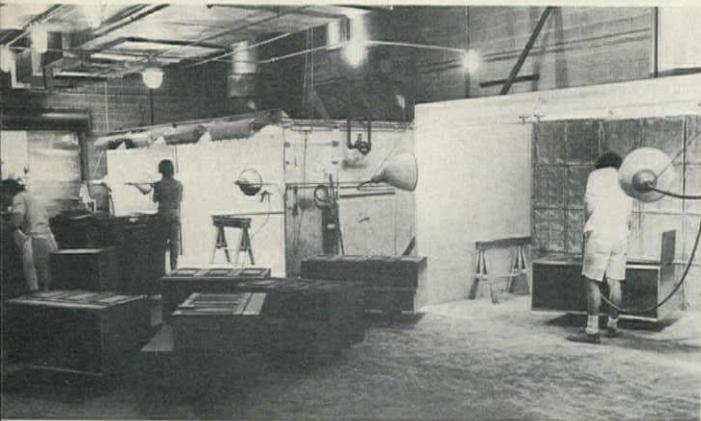


PHOTOS: EAMON KENNEDY

CABINET SHOP: A REAL MANUFACTURING FACILITY



9 Air make-up system for spraying operation is shown in foreground of photo at left; behind it is shack from which paints (photo, right) are pumped into spray booths.



8 Lacquer is sprayed on cabinets. Air in booth is conditioned and humidified.



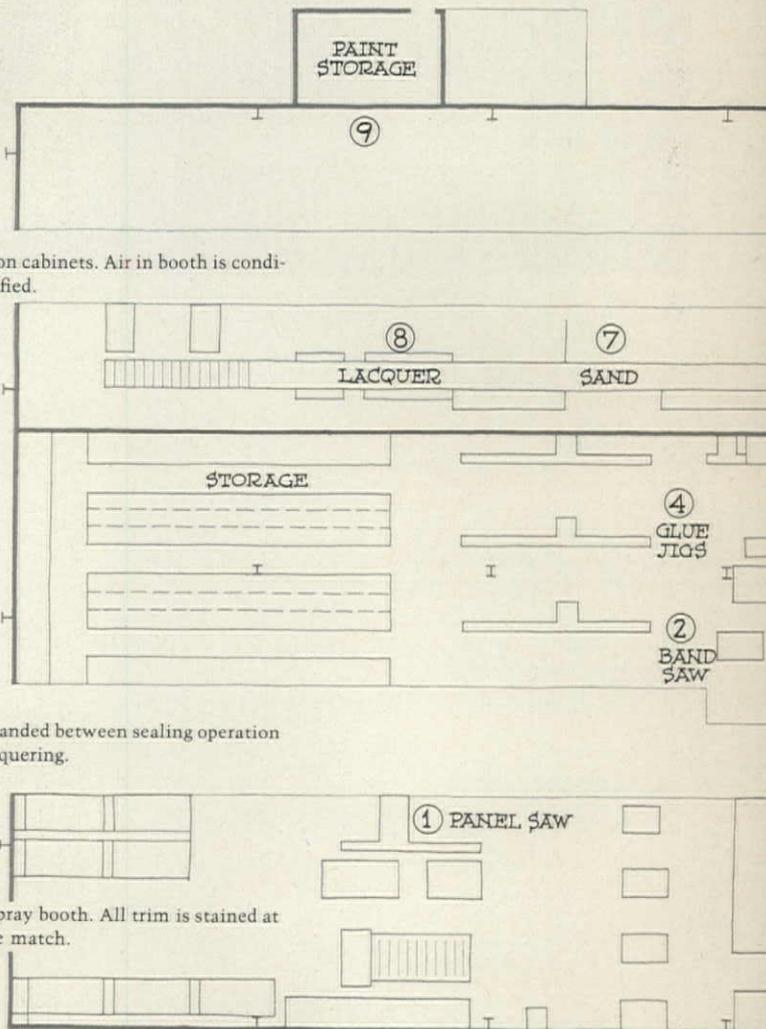
7 Cabinets are hand-sanded between sealing operation and subsequent lacquering.

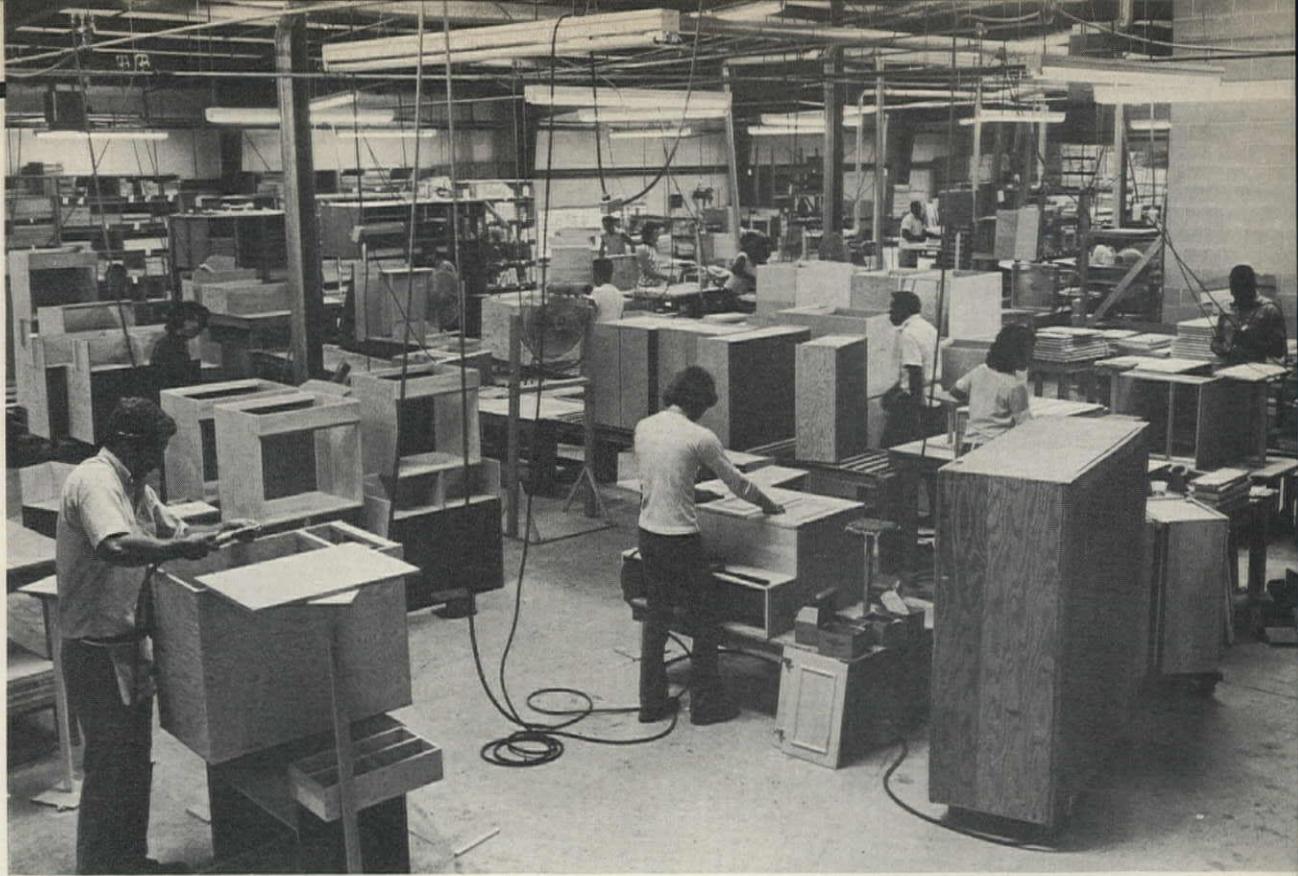


6 Stain is applied in spray booth. All trim is stained at same time to insure match.

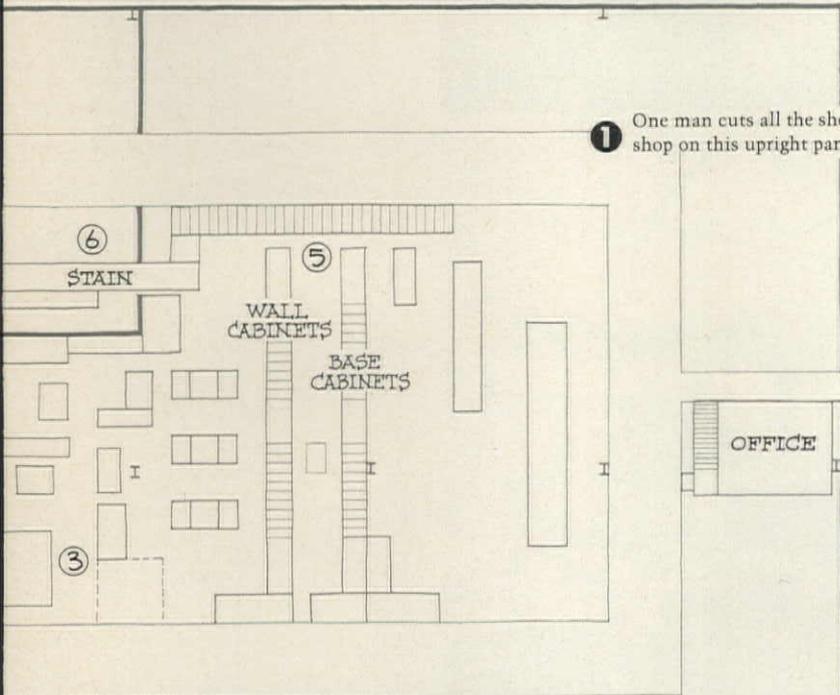


5 Doors are installed on overhead kitchen cabinet with air-powered screwdriver.

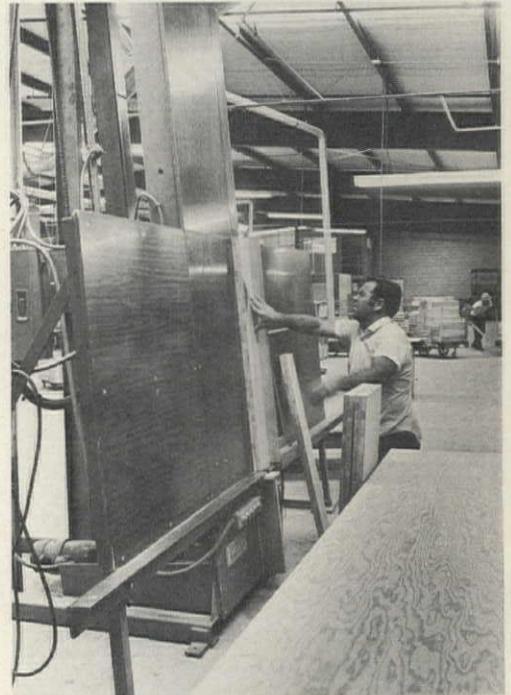




Overall view of cabinet assembly area shows air hoses hanging from ceiling; all hand tools are air-powered. Operations are set up so unskilled workers can learn them in a couple of weeks. Of 28 shop employees, 12 are women.



1 One man cuts all the sheet goods used in the cabinet shop on this upright panel saw.



2 Rotating jig, used with bandsaw, cuts arches for houses with Mediterranean trim.

4 Frame-type kitchen-cabinet doors are made of veneered plywood and mitered molding.



3 Arch material, cut in previous operation, is assembled with power stapler and glue.



THE END PRODUCT: A TYPICAL FOX & JACOBS HOUSE

PHOTO: WALT McDONALD



Some of the amenities made possible by Fox & Jacobs' manufacturing facilities are shown here. They include the high-style kitchen cabinets in the kitchen at right, the decorative wall trim in the master bedroom below at right, and the trellis patio roof below. F&J is currently building three lines: from \$18,100 to \$21,500, \$23,000 to \$26,000, and \$31,000 to \$36,000. ■



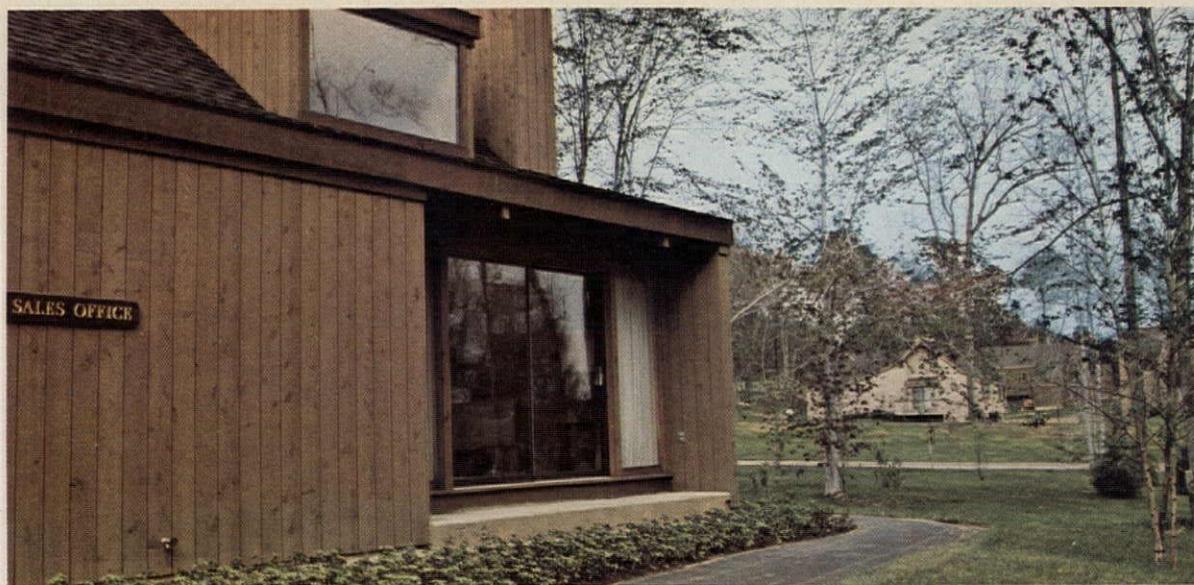
PHOTOS: EAMON KENNEDY



PROJECT
PORTFOLIO

3

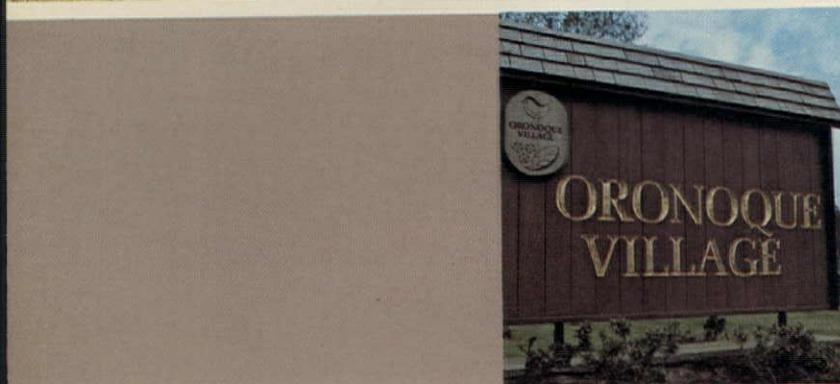
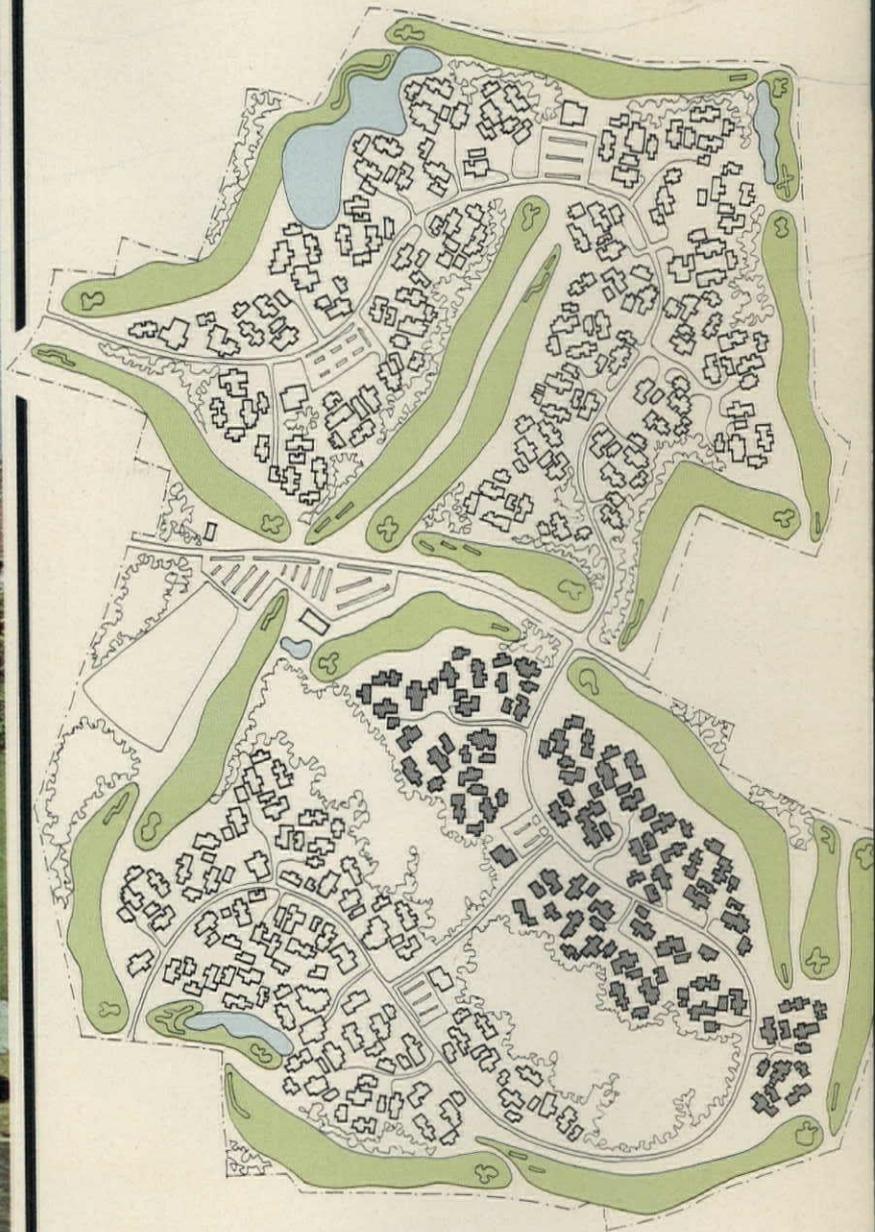
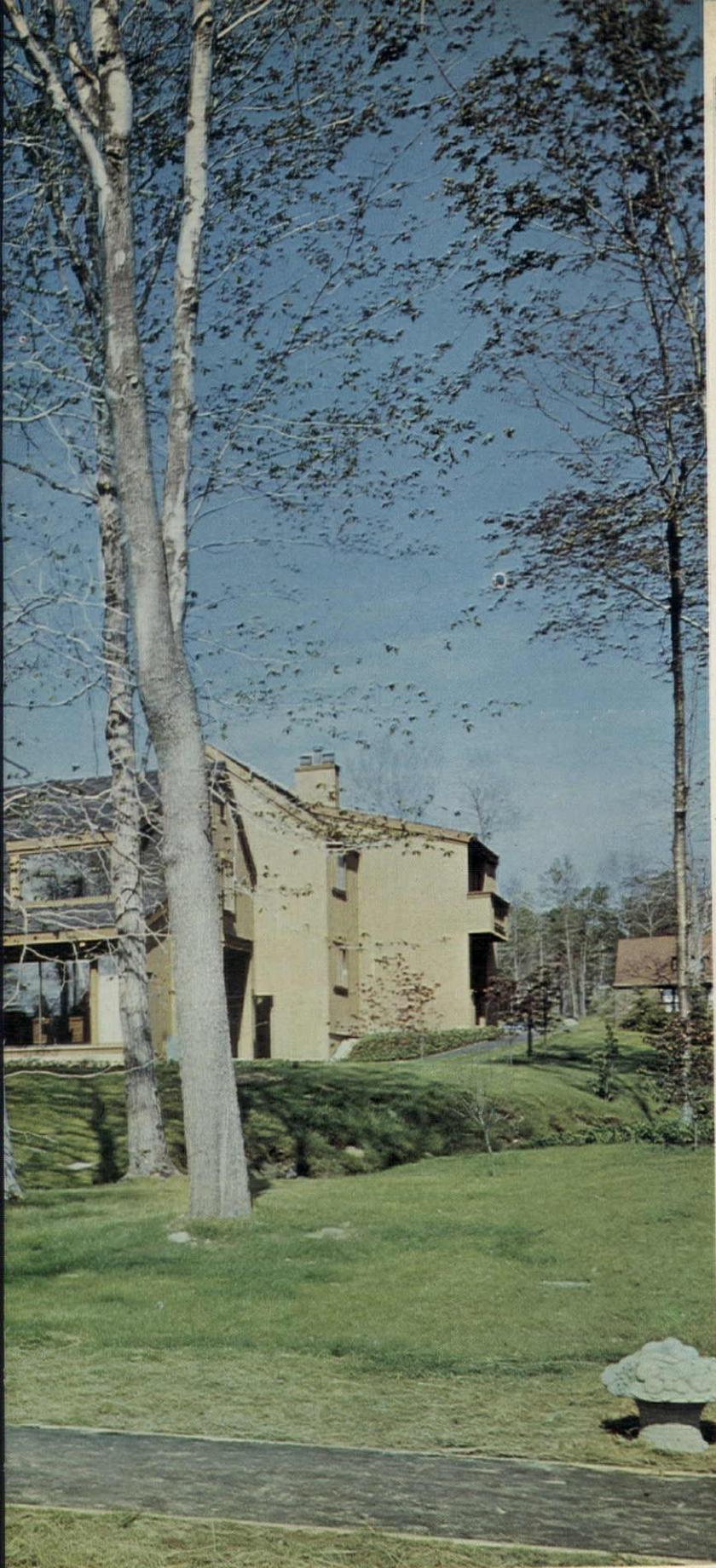
PHOTOS: JOSEPH MOLLITOR



PROJECT: Oronoque Village
LOCATION: Stratford, Conn.
DEVELOPER: Bargas, Inc., and Oronoque Development Corp.
PLANNER AND SUPERVISING ARCHITECT: Desmond Muirhead Inc.
ARCHITECTS: Walz & MacLeod, D. Antinozzi & Associates
ENGINEERING AND LAND CONSULTANT: T. Donald Rowe
GOLF COURSE DESIGNER: Desmond Muirhead
SIZE OF PROJECT: 304 acres
NUMBER OF UNITS: 1,200 condominium attached houses

From top to bottom, photos show: a corner of the sales office with one of the project's first sections in the background; an almost-completed 7,000-sq.-ft. recreation and community building, one of four the project will eventually include; and the rear of one residential building with 2 one-bedroom condominium units above, six garages for this and adjacent buildings below.





Oronoque Village is an adult community that includes features of both single and multifamily housing. The houses themselves are, for all practical purposes, one- and two-story, single family units. But they are attached and clustered to create the kind of open space shown in the photo at left.

The land plan, above, shows how the project's 18-hole golf course is used both as greenbelt and as a buffer from adjacent land.

TO NEXT PAGE



PROJECT PORTFOLIO

3 Basic building types in Oronoque Village are shown above. At right is a one-story model, at left a townhouse with 2 one-story units behind it. Note that all units have garages in the basement. The basements are there not by choice but because the local building department insisted on them. Thanks to the rolling nature of the site, one side of most basements can open on grade. Result: cars can go under the buildings, making more land available for green area. Shown at left is one of the first clusters overlooking one fairway of the project's 18-hole golf course.



Typical house group (*photo above*) shows the adaptability of Oronoque's cluster concept to the terrain. Buildings can be raised or lowered several feet in relation to each other to fit different topographic conditions, and an almost infinite number of building combinations is possible. Building at right contains 2 one-story units; this style has been discontinued because buyers showed a marked reluctance to 1) climb stairs to a second-story unit, and 2) live in a first-floor unit with someone else above. Present model area for the project is shown in photo at right.





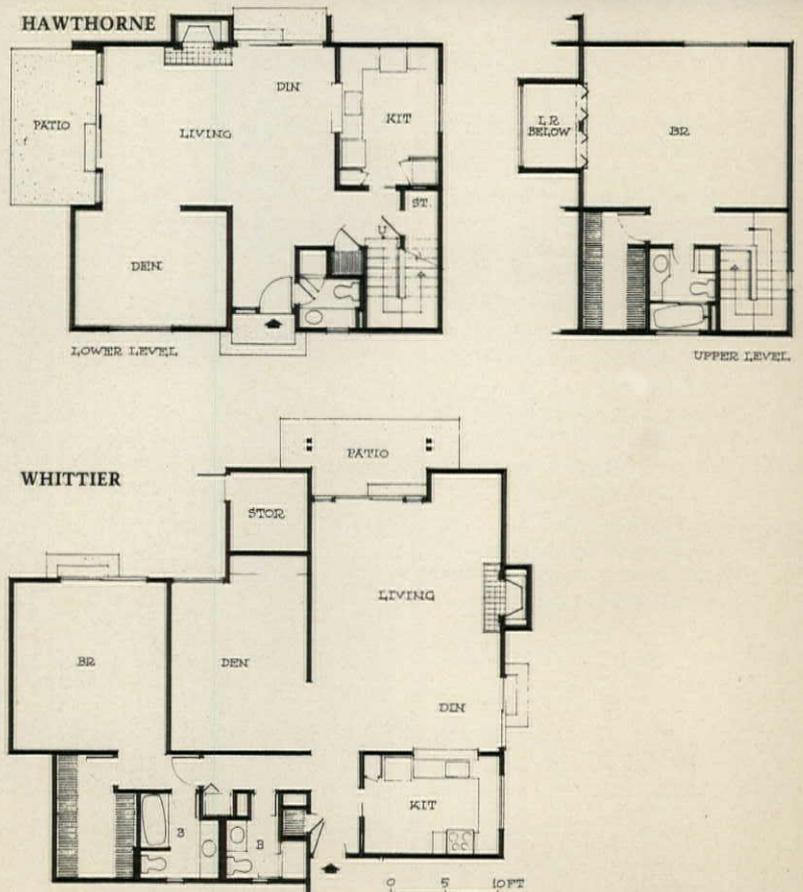
PROJECT PORTFOLIO

3 Most popular of the present plans is the Thoreau (see facing page) at \$38,900. Next is the Whittier (right) at \$41,900, then the Emerson, a one-bedroom model, at \$33,990. There were originally two townhouse models, now only the Hawthorne, whose plan is shown on this page, remains. It is the fourth best seller at \$37,900. All models are available on golf-course sites at an additional cost of \$2,000.

In granting Oronoque Village its present density of four units per acre (the site was formerly zoned one per acre), the town fathers placed unusually stringent limitations on the project. In addition to age restrictions—one member of the family must be at least 35 years old and no children under 17 are permitted—units themselves are held to four rooms and only one bedroom. Despite this, sales have been

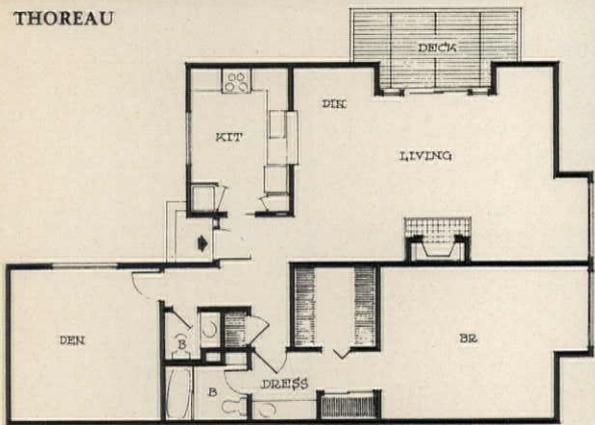
excellent. Nearly 100 families have moved in, and more than 60 firm contracts have been signed since units went on sale in March. About half the buyers fall into the empty-nester category—professional people and executives between 45 and 55. The other half is about evenly divided between the under-35 and over-55 groups.

The photo above shows the living room of the Hawthorne, the last surviving townhouse in the project. The high windows open out from the second-floor master bedroom. On the facing page, from top to bottom, are the living room of the Emerson as seen from the kitchen, the master bedroom suite of the Thoreau, and the living room and den of the Whittier.

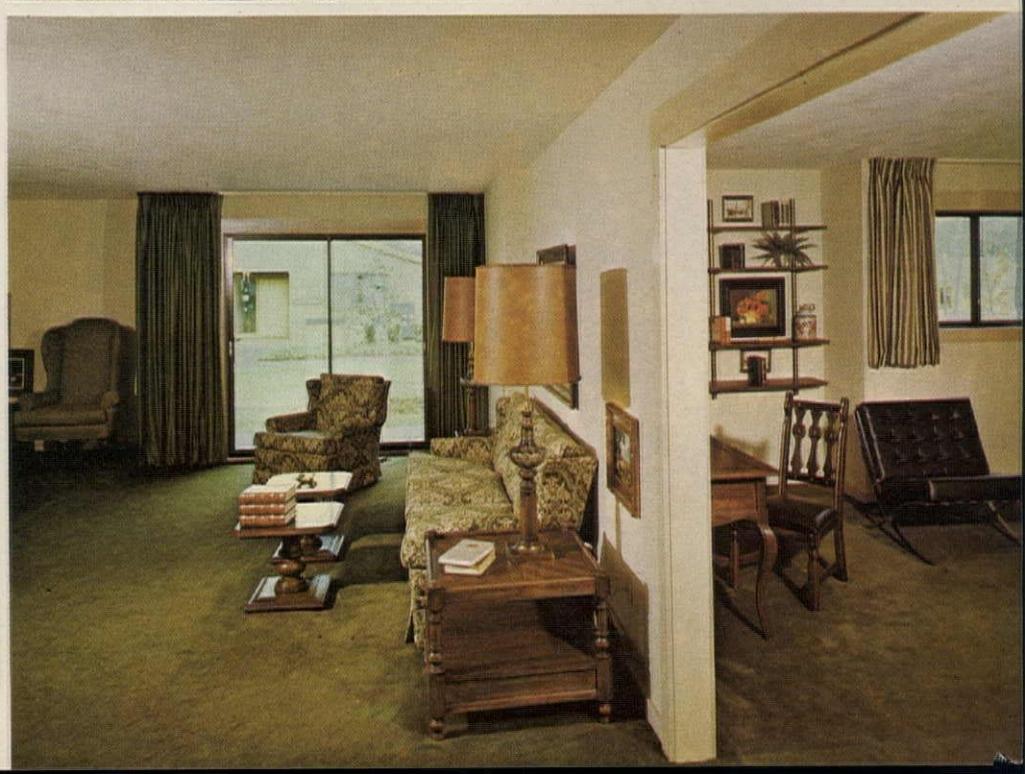
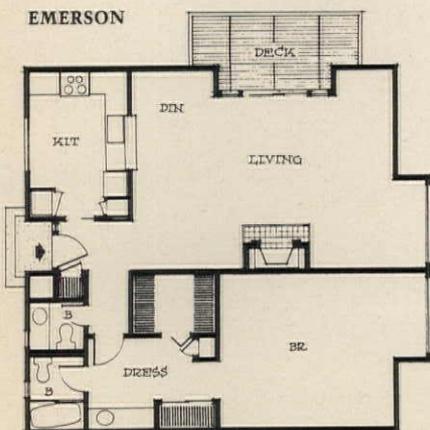


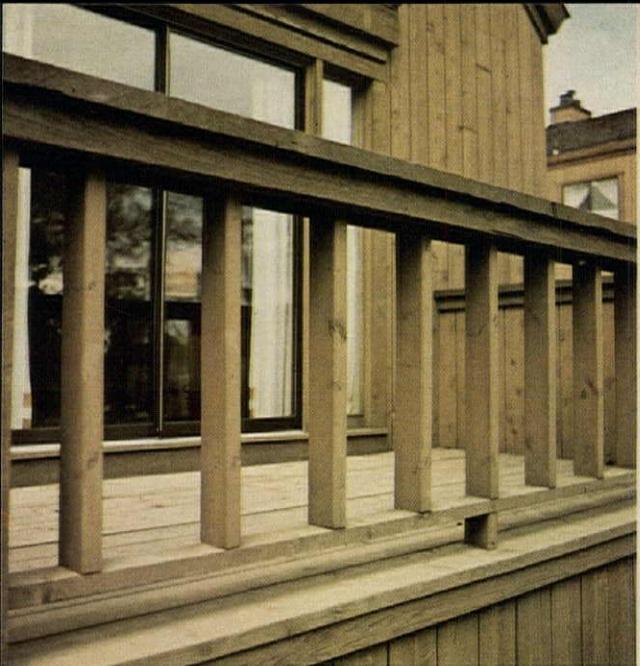


THOREAU



EMERSON





PROJECT PORTFOLIO

3 Detailing is a key aspect of Oronoque Village's semi-rural atmosphere.

At top left is the railing style used on porches and balconies. Made mostly of framing lumber, it fits in well with the natural finishes used on the houses. Meters are concealed in boxes like those at top right which are made of siding, hence nearly invisible. Trim, as shown at left, is strong and simple, consequently relatively inexpensive. Shown above is a street sign, representative of all the project's graphics.

PHOTOS: JOSEPH MOLITOR

Somewhere in Outback County you've got your eye on two or three pieces of contiguous farmland—anywhere from 350 to 700 acres, maybe even 1,000. You know they could be turned into a very profitable development. But where will you get your money? Should you joint-venture? Form a partnership? Lots of builders have made lots of money that way. But they've also paid a lot of taxes on their profits.

There's another way to put the deal together—and minimize the tax bite through long-term capital gains. Here, two lawyers* tell you...

How to keep more of your profits through a stock-for-stock deal



*Lenard L. Wolffe and James M. Richardson are members of the Philadelphia law firm of Pechner, Sacks, Dorfman, Rosen & Richardson. Mr. Wolffe, who received his LL.B in 1950 from George Washington University, was admitted to the Pennsylvania Bar in 1951. He has authored numerous articles on land use, zoning, and planning for a wide range of publications including the Temple Law Quarterly and the Urban Land Institute Bulletin. He was assistant city solicitor for Philadelphia from 1956 to 1962. Mr. Richardson received this LL.B in 1955 from the University of Pennsylvania. He is a member of the Philadelphia, Pennsylvania and American Bar Associations.

The basic difference between the stock-for-stock deal and other methods of financing a project is that you will be bought out. You'll swap your stock (representing land zoned and ready for building) for stock of a major—a big public company that will bankroll the job and also pay you a salary for building it.

Chances are your gross profit will be greater than if you were joint-venturing or in a partnership. But more importantly, that profit will be taxed as a long-term capital gain instead of as ordinary income.

Sounds great, doesn't it? So let's see how it works.

We'll assume for the moment that your project is ready to roll; you've got your zoning and final plan approval, and you've lined up your major. You have options on 1,000 acres which you had rezoned for residential, commercial, and light industrial.

Your base acquisition cost (what you put in out-of-pocket) is \$100,000. This includes \$35,000 in planning fees, \$15,000 in legal and accounting fees, and \$50,000 for the options. It will cost \$3 million to exercise the options. So, since the value of the rezoned land—with planning and rough engineering done—is somewhere around \$12 million, the potential profit is about \$9 million.

The acquiring company buys the entire job under a corporate reorganization on a stock-for-stock (or stock-for-assets) basis. In other words, they buy you out by ex-

changing some of their stock certificates for all of your shares. Almost invariably, this will be "investment stock"—stock not yet registered with the Securities and Exchange Commission.

The stock you receive will be split in two parts. One part (the initial shares) you get immediately: probably about 100,000 shares (at say \$20 each) worth about \$2 million. The second part, another 100,000 shares, should come some three to five years later—IF the job lives up to the pro forma's projection of profit. The contingent deal is known as the earn-out. Thus, you come out with 200,000 shares of stock worth roughly \$4 million, or approximately one half of the projected net profit.

Up to now you haven't received any cash. So you bargain for the right to dispose of up to 25% of your initial shares by having the acquiring company register that number of shares at its expense. Once registered, they are sold, and you get back \$500,000 almost immediately.

This sale should be taxed at capital gains rates. If you figure roughly 40% of the money as the tax bite, you will have \$300,000 left over. And, you still have \$1.5 million worth of stock, and a chance to have another \$2 million worth in the earn-out. Of course, you'll also get your salary for building the project.

So much for the basics. But there are a lot of fine points involved. And that's what the rest of this article is all about.

The preliminaries

There's a lot of work to be done before you're ready to approach a major; much of it the same as if you were joint-venturing or in a partnership. But there are some important differences. The first, and probably biggest, concerns early financing.

Front-end money. In a joint-venture your front-end money normally begins to come in as soon as you get zoning approval. So your early costs are minimal—some legal fees, something for preliminary plans, engineering, etc.—depending on what terms you are able to work out with your lawyer and planner.

But in a stock-swap deal you generally won't have access to your financing until you get final plan approval and building permits. So you'll have to be prepared to lay out a big chunk of front-end money. Sometimes, for a project such as we're talking about, it might be as little as

\$50,000 and could go to \$150,000 or more. This is your responsibility.

Why won't the acquiring company come in until you have final approval? Because it will want pro forma back-up data before making commitments. Its lawyers won't go along with the deal if the data is sketchy. They'll insist on seeing permits, and probably finals for the first section. They'll want to make a tight check of your cost figures, and they won't be able to do it unless you're ready with everything down in detail.

In a few instances some successful developers have actually obtained just their options or agreements on the land, and are sufficiently skilled so that, with some help from their planners, they have negotiated with an acquiring company contingent upon their being able to deliver a deal.

Sometimes these arrangements are bind-

ing; more frequently, they aren't. Often nothing more is exchanged than a letter of intent (non-binding) that the major will swap stock on this basis "if, as, and when" everything is okay. Usually, this works when the major knows the builder well and has already had extensive dealings with him.

But chances are you won't have your major lined up in advance, so you'll have to make arrangements to come up with that front-end money.

Corporate organization. You should organize a new corporation whose stock will ultimately be swapped for that of the major. A new corporation is recommended because the acquiring corporation will back away from any company that might have unforeseen liabilities. Starting fresh for this specific deal lessens that possibility.

Your lawyer and accountant (and pos-

Finding a buyer (major)

Your project is ready to roll. You've got your zoning and final plan approval. You've done your paperwork. Now it's time to pull in your major.

The presentation. Some builders prepare a booklet in about 20 copies. Your lawyer should help you write this, or at the very least edit it so that it includes no statements that cannot be backed up.

The first section is a general description of the job. For example:

"We have under option 450 acres of land in Outback County, in the State of Transhampshire, located at the intersection of I-79 and State Route 408 approximately 10 miles east of Centerville. It is zoned P. U. D. for approximately 2,800 units, of which 700 are apartments, 1,600

townhouses, and the rest in singles and semi-detached units. In addition, _____ sq. ft. of commercial and _____ sq. ft. of industrial are provided for."

You should attach a map in front showing the location and a copy of an opinion letter of counsel in the back as to the validity of the ordinances and the kind of legal control you have over the land.

Cutting the deal

You've lined up your major, and you're ready to bargain. What do you ask for, and what can you reasonably expect to get?

Basically, you want three things: (1) stock representing the value of what you have done—land value reflecting zoning changes, which is in part the value of the land in light of anticipated net profits over the period of development; (2) guarantees that financing for the development will be forthcoming with a reasonable degree of speed; and (3) assurance that you will be on the payroll to build the project.

Stock. The best way to work the deal is to exchange your stock in your corporation which has options for the real estate and has accomplished all the work for stock in the acquiring company. This is the simplest way as there is no transfer tax on real estate or on options to acquire real estate. At this juncture, this kind of deal is considered free of tax if it is done properly. And getting it done properly is your lawyer's job. Don't try to do it yourself. You'll get skinned.

(In some cases, if the acquiring company has reservations about your company, it may want to acquire only your company's assets, so there will be no unforeseen liabilities. In this case, you would sell the assets in exchange for stock in the acquiring company. The problem here is that of possible transfer taxes on the value of the real estate. This is the reason we recommended that you set up a new corporation for this deal.)

Basically, you will be showing the acquiring company projected financial statements including, ultimately, a projected net profit. This is one of your bargaining tools. Another tool is the increased value of the real estate based on the new zoning. These figures should reflect all of the work you put into the project.

Obviously, the terms of each deal depend on individual details. But in general, you are in the ball park if you ultimately expect to receive half the net profits, assuming these net profits are realized. But, you can hardly expect the acquiring com-

pany to transfer stock to you for your share of the projected profits without some degree of certainty that those profits actually will exist.

So, at the time the deal is consummated the acquiring company generally transfers to you stock having a value equal to 25% of the projected net profits. These are initial shares. The remaining 25% (subsequent shares) will come when the project is completed, contingent on the profits actually being realized.

As noted in our earlier example, at this point you haven't received any cash. All you have is paper—shares of the acquiring company. But that paper can't be sold or hocked because, according to your agreement, the stock is restricted by a letter of investment. Usually, this means you must hold the stock for a minimum of two years.

So you have the acquiring company agree to register some of the stock without charge to you (registering stock can be quite costly). The stock is then sold, and at this point you get back some cash—taxable as a

sibly a tax consultant) will be concerned with all details of the corporation and its books. Everything will have to be put in readiness because IRS may want to look at the back-up. And you can be sure the major's legal department will go over the books with a fine tooth comb. One bad word from its lawyers, and the whole deal blows up.

Your lawyer and accountant will be key men in the deal and will have to certify to all sorts of things. So right from the beginning they must know exactly the kind of deal you have in mind.

Zoning and planning. Basically, the same rules apply here as in any other kind of deal. Only more so. Regarding zoning, your major will insist that everything be laid out in black and white. It will not be satisfied by handshake agreements with local officials on even small matters—the

kind of things you might have a tacit understanding on if you were doing the job by yourself.

At the very least, you'll need agreements memorialized—that is a memo in your file dictated after any conversation you have with any commissioner or other official regarding what you can or cannot do.

Also, since your major has to answer to its stockholders, and because it's in the public eye, it doesn't want to be involved in any deal that engenders unfavorable publicity. So it's especially important that your zoning lawyer help sell your concept to the community with a minimum of backlash. This doesn't mean you have to walk away from a zoning fight. Just don't bear down too hard.

As for planning, if you want to keep your front-end outlays to the minimum, try working out a deal with the planners for

a base fee covering their costs plus a very modest profit and with a stipulation for an incentive bonus if and when everything works out.

But more importantly, it is vital in this type of deal that your team include planners with a track record for getting their jobs through with a minimum of grief. If possible, they should have a current national reputation in legal and planning aspects of P. U. D. S, and consequently be well-known to your major.

In the planning process bear in mind the objectives of the acquiring company. It is interested in one thing—bottom line profit (actual cash profit, not net). It is not looking for a tax shelter. So selling, not renting, should be your goal. If possible, plan some apartments for the early stages which, can be built and sold to show a good bottom line number.

The next portion should be your pro forma statements showing what the job can throw off after all costs, year-by-year. When possible, your accountant should verify this, although admittedly it is sometimes difficult to do.

Search for a major. How do you go about finding a company that might be interested in participating in a real estate develop-

ment project? There are several methods.

One way is to ask around. You'll be surprised at how many major-listed companies are looking for that kind of deal. Another way is to put an ad in trade journals and/or the *Wall St. Journal*. Many people have obtained results this way—and at a fairly minimal cost.

A third way is to go to a broker or

finder. But this route should not be followed until all others are exhausted. The reasons: you will have to pay a fee, and, in general, you lose control of the situation.

If you have laid the groundwork properly your project will have considerable investment allure, and you should not have difficulty in convincing others of the potential profit.

capital gain rather than straight income.

You also should get an agreement that you may piggy-back on other registration statements the company makes. (In piggy-backing, your stock can be added to stock the company is registering for other purposes at little or no extra expense to you.)

Of course, the same provisions should apply to your contingent or subsequent stock.

Since you are acquiring stock, you will have to negotiate its price. This may be either its market value on the day you complete the transaction or its average value over a period of 30 days or so prior to the transaction. There is a lot of work between the signing of the agreement and the closing of the transaction, including certified statements, opinions of counsel, and a multitude of other documents. So you might be better off getting the average price over a period of time. In that way you will not be speculating on the day-by-day market price.

Financing. In addition to your stock agree-

ment, you will want commitments from the acquiring company that it will provide the financing for the property, either directly, through guarantee of the loans, or in whatever manner it may contemplate arranging such financing.

Employment. You also will want an employment agreement to make sure you will continue to be in charge of the project. In general, your salary should be determined by comparison with salaries in subsidiaries of comparable size, plus their fringe benefits.

Your side of the deal. In return for what you're getting, you'll have to agree to a few things. To make sure the job is completed in case something unexpected happens to you, you'll have to provide second-level management. The acquiring company will expect you to come up with two men acceptable to them—one for building, one for sales. They'll also insist on key-man insurance.

You'll probably have to sign a no-compete covenant in which you agree not to

engage in any competitive venture within a stated period of time—usually for the number of years it takes to complete the project. This agreement holds even if for some reason the company becomes dissatisfied with your performance and kicks you out before the project is completed. You'll still get your salary, but you won't be able to do any other work.

In general, you'll be running the project—through a wholly-owned subsidiary which the major will set up. But there will be a comptroller from the front office to monitor the job.

If you're not the kind of person who can work within the strictures of a big public company, a stock-for-stock deal isn't for you. But if you're a reasonably successful builder, have built a variety of things, have a good reputation in your community, and can forgo some of the benefits of controlling your own operation, you could wind up with the satisfaction of having built a really big job—as well as with a big profit on a relatively small investment. ■

New developers

Bud Reeder, at right, has never built a house; he's an ex-IBM employee. Ken Euell, center, while an experienced general contractor, has built only four houses in his career. John Ryan, left, is by contrast an earthmoving contractor with six years' homebuilding experience. Earlier this year, the three men formed Unitized Building Corp. to sell sectionals in their 150-house subdivision.



How come these developers buy their houses



New sectional house

The two halves of a sectional, slated for delivery to Unitized Building Corp., emerge from Capital Industries' plant in Avis, Pa. Capital opened the plant (*see page 64*) in part to serve growing demand from developers such as Unitized.

from a factory?

Up to now it's been a pretty well accepted tenet that while sectional houses often make economic sense for a scattered-site operation, stick building is cheaper when a one-site project of any size is involved.

Yet the men on the facing page bought and sold 50 sectional houses for their development this year. They did it because they are convinced that . . .

. . . regardless of tradition, sectionals are more profitable than comparable stick-built houses, and

. . . there are fewer frustrations when the house is put on a site rather than built on a site.

The men are Ken Euell, John Ryan, and Bud Reeder—president, secretary-treasurer, and sales manager of Unitized Building Corp., Billings, N.Y. They're part of what Capital Industries of Avis, Pa., a house manufacturer, sees as a shift toward volume use of factory houses.

Traditionally, builders who buy sectional houses buy no more than four or five in a year. But this year, 12 builders out of 143 Capital customers have purchased better than 15 houses each. And some are veering toward real volume. Two other examples:

- Arnold Ritt, who heads Crest Affiliates Inc., on New York's Long Island, has sold 300 sectional houses this year. Ritt is geared to hit 500 units next year, selling and erecting sectionals throughout the 1971-1972 winter.

- J. Mark Robinson, president of J. Mark Robinson Homes, Tunkhannock, Pa., sold 60 sectionals this year—almost all via Farmers Home Administration Mortgages.* He anticipates selling 100 more next year—two houses a week all year long. He puts in extra foundations during the warm months to insure steady production during winter.

Euell, Ryan, and Reeder of Unitized Building Corp. are relative newcomers to homebuilding (see photo caption on facing page). They were attracted to sectionals, they say, when they discovered, in the face of contrary opinions, that a well built sectional house could be built more cheaply than a comparable stick-built house.

They launched their firm when they uncovered a ripe market: the rural Hudson, N.Y. area—25 miles south of Albany. Conversations with real estate agents in the community convinced them that space-hungry apartment dwellers living in the Central Hudson Valley would be eager to buy a home if the price were low enough and little or no down payment was needed. The cheapest new single-family houses in the

area were selling at \$24,000—out of reach of most buyers.

Unitized Building Corp. came into being last April, offering sectionals in a 150-unit development. Houses were priced at \$18,500 to \$24,000 on roughly one-third of an acre. On July 15, two months after the model home opened, Euell, Ryan, and Reeder knew they had hit the right market. They had sold 50 sectionals—twice the amount the community's biggest stick builder did in a whole year. They stopped there not because of a lack of buyers but because the project is on temporary septic tanks, and 50 units was the limit for the land. A sewage treatment plant will be built next year.

Here's what Unitized Building's executives say about their venture:

"Sectionals are more economical than conventional houses"

Euell tells why:

1. "We buy factory-built houses for less money than it would cost us to stick-build comparable models. And that lower cost is the key to our market. If the house cost another \$1,000, we wouldn't be able to sell it." As evidence, Euell points out that most of the first 50 sales were at \$18,500—the bottom of the line.

2. "We have no construction-loan costs." The obvious reason: Euell has no construction loans. His firm pays all costs for any house that is not mortgaged by Farmers Home Administration and collects at the closing. With that arrangement, the firm's cash is tied up for only two or three weeks.

When the house has a Farmers Home Administration mortgage, Euell gets 20% when the foundation has been completed, 40% when the house is delivered, and 40% when the house is completed. The Farmers Home money is paid to Euell directly from the homeowner's mortgage account set up by Farmers Home.

3. "There's little or no on-site theft or vandalism because there's hardly anything around to steal." Once the house is put on its site, it's locked securely.

4. "We have more time to plan ahead. Without the day-to-day problems of construction, we're free to improve our organization, scout around for land, and, in general, to plan the company's future activities."

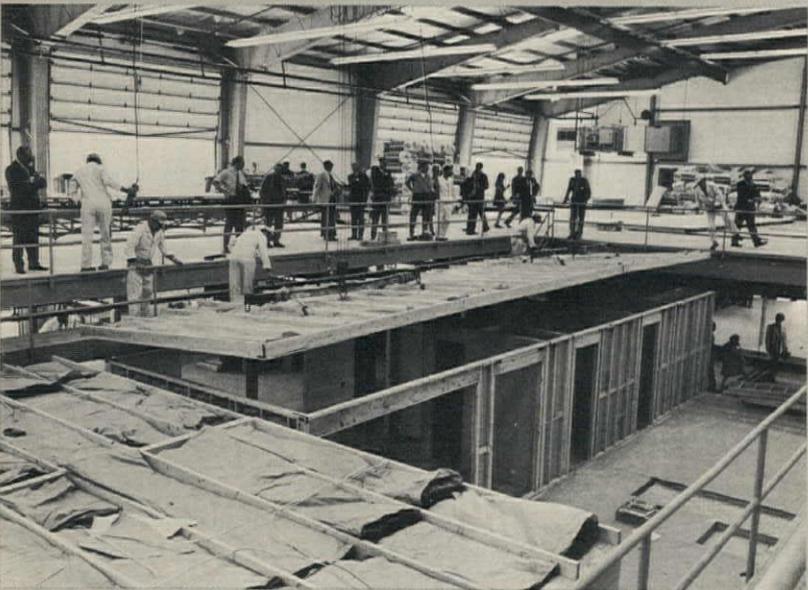
And, Euell adds, having that time is like having money in the bank. "We're less apt to make costly errors when we have time to think."

5. "We have fewer subcontracting problems." Euell deals only with one electrical and one plumbing sub. "We control everything else ourselves."

"Our profit margin is healthy", Euell says, adding that the company makes nearly \$3,000 on each house it sells. Here's

TO NEXT PAGE

*When Farmers Home grants a mortgage, it lends the money to the homeowner in contrast to the FHA procedure which simply guarantees a bank-oriented mortgage. Farmers Home makes mortgages only to needy families and will, depending upon the family's finances, subsidize a portion of the interest itself. The maximum mortgage varies by locality, \$20,000 is typical.



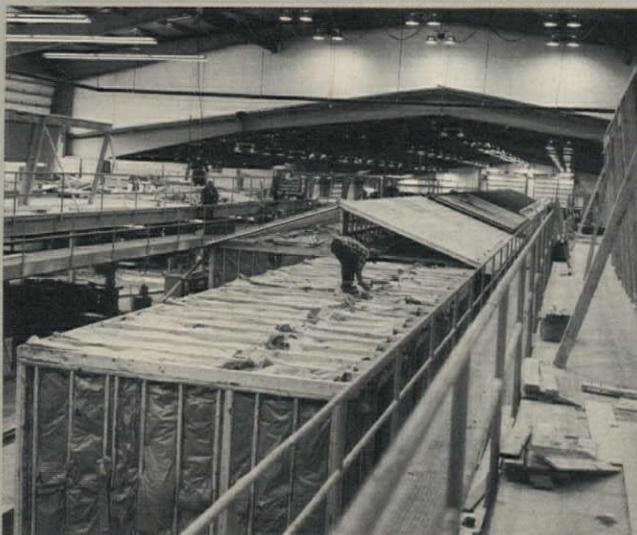
New sectional-house plant

Capital Industries unveiled its just-completed 83,500-sq.-ft. plant (top photos) to housing dignitaries and the press in September. (The outmoded plant was 75,000 sq. ft.)

The \$1.2 million plant was designed to lessen materials handling. It has 10 work stations that are manned in a way to eliminate congestion. Its one-shift capacity is 1,000 houses a year.

Present production (at bottom), is one house a day. The work force for the new plant will exceed 150 employees with an annual payroll in excess of \$1 million.

The company offers a choice of 26 floor plans.



how the costs break down for the \$18,500, 42'x24', 3-bedroom ranch—the most popular in the development:

\$8,600	House
835	Transportation, highway fees, erection
3,700	Foundation
2,500	Improvements

\$15,635 TOTAL

Euell says the cost of the land was so low he doesn't include the figure in his computations.

"Local codes are not a roadblock"

And in this case, there's a good reason why: before Euell, Ryan, and Reeder even organized Unitized Building, they discussed sectional houses with the local inspectors. How, they wanted to know, would the inspectors rate a house that can't be fully inspected because it arrives constructed.

The Unitized Building team explained how the house was built and pointed out that it was accepted by the New York State Building Code, the New York Board of Fire Underwriters, Farmers Home Administration, VA, and FHA.

The inspectors' initial reaction: "That's nice—but let's see the house." Their subsequent action: all houses have been promptly okayed on arrival at the site.

"The Sectionals are marketed as ordinary houses"

Prospective homeowners don't even know they're in a factory-built house, says Reeder, Unitized's sales manager.

"I had a customer the other day who had just left Ghent, N.Y., where he'd seen factory houses that looked like mobile homes. He walked through our house and said, 'Gee, this is a nice house. You know, I can't stand those factory ones!' When I told him he was in a factory-built house, he just refused to believe it."

Typically, Reeder holds back information on where the house was constructed until midway in his talk with a prospect. Then, he explains, "we say such things as, 'When the factory completes your order' and 'your house should be delivered by September 24.' That way, the customer discovers he's in a factory house *after* he has made up his mind that he likes it. There are no complaints."

"And why should there be?" adds Euell. "Unless you saw the bolts in the basement, you'd never suspect this house was built in a plant."

"But there have also been some problems"

The most painful, according to Euell, are these:

"We had growing pains with the factory." It took time for Euell and his men to

get accustomed to the factory and its ways—and vice versa.

"At first we didn't quite know what to expect. There was no book written to tell us what we needed to know about the house, its construction, and the factory operation."

Even today, there are still some bugs to be worked out: "the house we get doesn't always jibe completely with the plans. Yesterday, for example, we received a house with wrong-sized windows. Whenever we find an error, we call the factory immediately. Otherwise, our next house and the house after that will have the same error."

"A house arrives late about once a week." That's usually because bad weather has made another builder's road impassable, holding up Capital Industries' trucks.

"If that builder owned a bulldozer—as we do—he'd be able to get his house to its site with no problem," says Euell. "But he usually doesn't. And by the time he rents one, two days are wasted."

"Capital's production schedule often favors the houses it sells retail over those it sells to builders." Euell sees no solution to this problem. "If I want my house first, and Capital wants its house first, who do you think is going to win?"

But, says a Capital spokesman, "Never—absolutely never. There is no priority given to our houses. We honor our dealers first. Perhaps one of our field representatives told that to Euell as an excuse."

While most difficulties are specifically sectional-house problems, Unitized Building also had a few conventional obstacles. The biggest concerned mortgages:

"We couldn't find a bank to make mortgages with little or no down payment," Euell says. The local bankers, he adds, are an unbending, conservative bunch who—just for openers—didn't like his company because it was brand new, didn't trust him and his fellow officers because they didn't live in the community, and balked at investing in a large development because they had never had one plopped in their laps before, and the prospect frightened them.

The few banks that agreed to making mortgages insisted on 20% to 25% down.

Euell threw up his hands in disgust and found a mortgage broker in Goshen, N.Y., who produced two willing mortgage sources: Albany Savings Bank and Inter-County Title Guaranty & Mortgage Co., a New York City mortgage banking firm. Albany grants 90% mortgages as a rule, and will give 95% FHA provided somebody else does the paperwork. Inter-County makes no down-payment loans. So much for the present operation. What about the future?

Euell and his fellow executives are prepared to sell houses on the remaining 100 lots next year. And they have their eyes on their next sectional development. It's only a matter of time.

New homeowners

Thomas and Barbara Morrissey typify the families who buy Capital sectionals through Unitized Building Corp. They had

been living in an apartment with their 2½-year-old son (in mother's arms).

When their daughter was born a year ago, it was impossible to continue living where they were.

A house was the only solution.

But the cheapest they could find sold at \$23,000—out of reach for Tom, a high school teacher. When they spotted Unitized Building's sectionals for \$18,500

to \$24,000 on opening day, they were among the first to

buy. They financed their \$20,000 house with a no-down-payment Farmers Home Administration mortgage that includes an interest subsidy because of their finances.



massive study of 184,122 sales leads from House & Home readers confirms that sales action in housing & light construction comes from every segment of the industry

To identify all the important people in housing and light construction who are active in the selection of building products, materials, and equipment, House & Home followed up 184,122 advertising inquiries from its reader service cards and received a 31% return involving 57,327 inquiries.

Survey questions were designed to determine what, if any, "sales actions" were taken as a result of readers having seen advertisements in several issues of House & Home.

For the purpose of this study, "sales actions"—that is, those actions bringing products and

prospects closer to a sale—have been defined as *specifying, recommending, approving, purchasing, and still investigating further.*

For each sales action, of course, the unknown multiplier is the number of residential or other units for which the sales action was taken. For example, a single *purchase* mention could involve a 10 house development, a 280-unit apartment complex, or anything in-between.

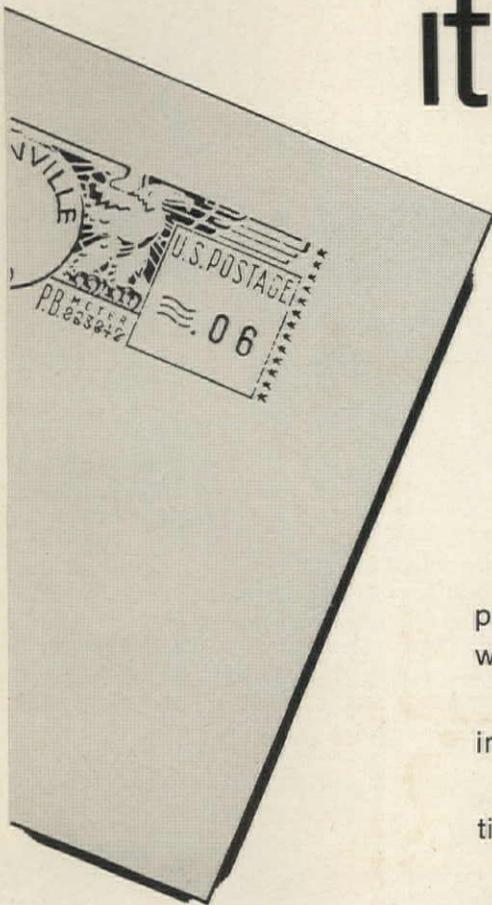
Results indicate in the clearest possible manner that sales action comes from every segment of the industry, as shown in the table below.

SALES ACTIONS TRIGGERED BY ADVERTISING

Industry Classification	Literature Requested by Readers Surveyed	Literature Requested by Survey Respondents	Literature Received by Survey Respondents	Specified Product	Recommended Product	Approved Product	Purchased Product	Still Investigating Product	Total Sales Actions	Sales Actions as % of Literature Received
Architects & Designers	37,609	13,073	11,584	1,940	1,917	1,321	397	3,039	8,614	74.4%
Builders & Contractors	78,279	23,001	19,939	1,781	2,251	2,069	2,518	6,604	15,223	76.3%
Commercial/Industrial	3,269	1,071	934	74	105	54	57	334	624	66.8%
Engineers	5,908	2,254	1,959	151	237	118	105	627	1,238	63.2%
Financial	2,976	1,165	1,051	57	115	48	57	364	641	61.0%
Government	3,643	1,645	1,432	69	146	87	60	411	773	54.0%
Realty	7,616	2,514	2,262	152	249	207	147	850	1,605	71.0%
Retail Dealers	3,689	889	752	80	92	64	97	221	554	73.7%
Subcontractors	6,520	1,811	1,574	132	178	141	203	490	1,144	72.7%
Wholesale Distributors	2,071	658	564	32	64	40	40	189	365	64.7%
Others not identifying self	32,542	9,246	8,013	555	870	560	434	2,536	4,955	61.8%
TOTAL	184,122	57,327	50,064	5,023	6,224	4,709	4,115	15,665	35,736	71.4%

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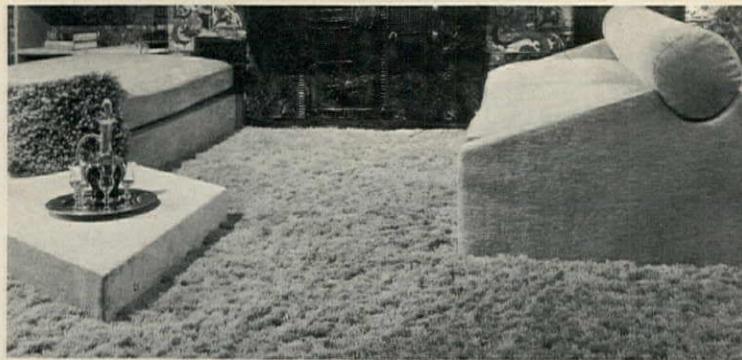
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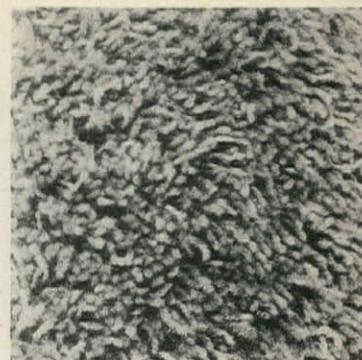


Thick shag, shown close up at left, is made of a slim, tightly twisted nylon yarn, creating a durable and resilient carpeting. Yet the effect is a glossy texture, much like silk, which imparts a luxurious look to any floor. The living room shown above, like many living rooms today, is set up for informal entertaining near—or on—the floor. "Intuition" carpeting, which comes in 21 colors, makes it look luxurious at a retail price of about \$11 per sq. yd. Lees, Norristown, Pa.

CIRCLE 215 ON READER SERVICE CARD

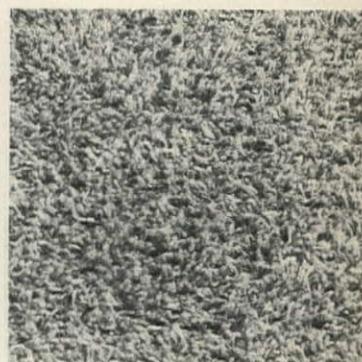
Three-color shag comes in blue-green tones, gold tones, and avocado tones, plus such other color combinations as raspberry and oranges, mint with golds, and blues with lavender. "Orlando" is made of nylon not only for its colorability but for its wearability and resilience. It meets all FHA specifications and will retail for less than \$7 per sq. yd. Johns-Manville, New York City.

CIRCLE 220 ON READER SERVICE CARD



Four-color shag is featured in 18 colorations. Not just color families, these colorations include such combinations as red, black, and orange or brown, green, and aqua. "Maxi" shag is so called because its twply heat set nylon pile is more than 1½" deep. It comes 12' wide, has a double jute backing, and more than meets FHA specifications. Congoleum, Kearny, N.J.

CIRCLE 221 ON READER SERVICE CARD



Six-color shag comes in 16 colorations that are very closely matched. Color families include reds, grays, rusts, ambers, whites, turquoises, and several varieties of brown, green, and gold. "Kaleidoscope" is a thick shag of continuous-filament nylon yarn. It retails for about \$9 per sq. yd. and comes in 12' widths. Bigelow-Sanford, New York City.

CIRCLE 216 ON READER SERVICE CARD



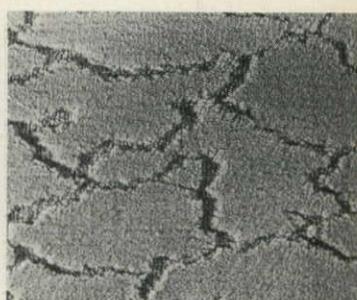
Dense level pile, designed to be exceptionally durable, is offered for heavy duty use. Yet it has, because of mixed light and dark shadings, the fragile look of crushed velvet. Twenty-one colors include "Marmalade", "Celery", "Vermouth", and "Plum". "Reminisce", retails for \$11. Monticello, Burlington, New York City.

CIRCLE 217 ON READER SERVICE CARD



Textured broadloom has three heights of deep pile constructed in a pattern of gently curved interlocking waves and a precisely sheared surface. Made of Monsanto's "Acrilan" acrylic fiber, "Great Demand" comes in 11 combinations of two or three colors. It retails for \$10.50, comes 12' and 15' wide. Downs, Willow Grove, Pa.

CIRCLE 222 ON READER SERVICE CARD



Cut and loop construction produces a carved look. Tufted in a design that looks like clouds, this heavy plush pile is made of American Enka's "Enkaloft" nylon staple fiber. "Classic" carpeting comes in 12 solid colors. It is available in both 12' and 15' widths, and it has a double jute backing. Fort Valley Mills, Dalton, Ga.

CIRCLE 223 ON READER SERVICE CARD



Vinyl "bricks" in brown, rust, or white are three-dimensional design embossed on sheet flooring cushioned with vinyl foam. The three-brick pattern is so carefully reproduced, even grains of sand in the mortar are visible. Vinyl protective layer makes "Normandy" a low-maintenance floor. GAF, New York City.

CIRCLE 218 ON READER SERVICE CARD

Carpet tiles, used in a supermarket aisle as shown, withstand the heavy traffic of shopping carts even with little or no adhesive. "Tex-Tiles" have dense pile surfaces of anti-soil nylon or acrylic yarn fused to vinyl backs that conform to the floor, preventing 18" squares from lifting at the edges. Collins & Aikman, New York City.

CIRCLE 224 ON READER SERVICE CARD

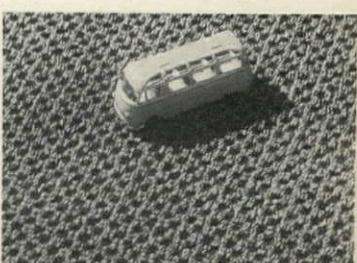


Low-cost "slates" are actually 12"-square vinyl-asbestos tiles embossed to give the appearance and texture of hand-cut slates set in mortar. Once installed, the tiles present a virtually seamless look. "Stonefield" tiles come in olive, red, white, or slate and are 3/32" thick. Armstrong, Lancaster, Pa.

CIRCLE 219 ON READER SERVICE CARD

Contract carpeting for heavy-duty areas is called "Public Service." Made of "Zefran", 70% acrylic and 30% nylon yarn, it also has "Zef-tat" anti-static yarn woven in. Pioneer Carpet makes it in 11 colors, 6' wide, with either 54-oz. solid or cushion vinyl backing. Dow Badische, New York City.

CIRCLE 225 ON READER SERVICE CARD



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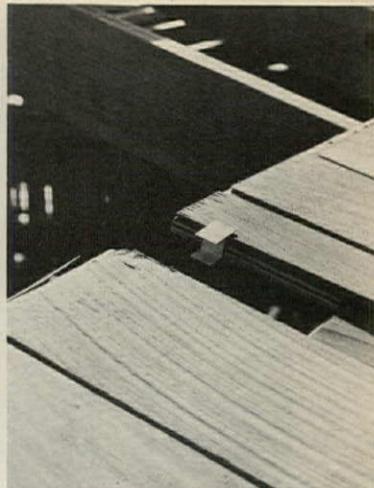
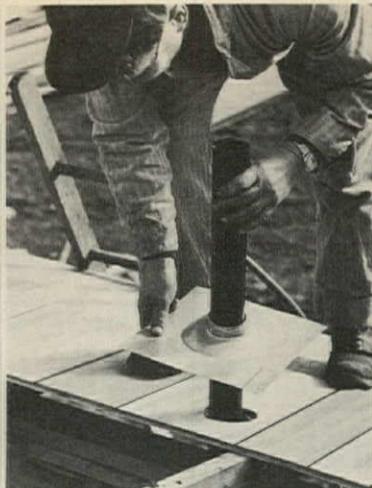
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Marion Lucke, (L), Secretary, Lucke & Strassel Builders, Inc., Cincinnati, O., and Senco Construction Specialist Mike Miller



senco



Eight-foot-long shingle panels speed construction, reduce errors

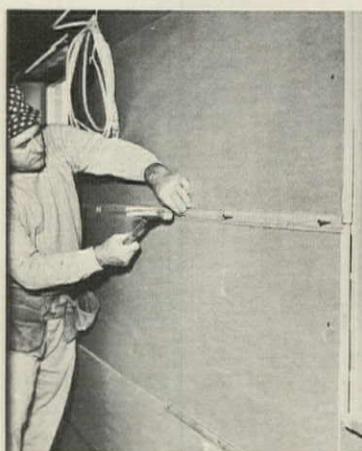
Panels, easily carried by one man, can be installed in less time than individual shingles. Yet they retain the look and weatherability of red

cedar shingles. On top are 16" shingles 18" long and of various widths. Underneath, electronically bonded to shingles, is 1/2" sheath-

ing grade plywood. Panels are cut to fit around vents. Nailed to rafters at 16" or 24" centers, panels sometimes meet between. Then

plywood clips add strength, and the joint is bridged by next panel. Shakertown, Cleveland, Ohio.

CIRCLE 226 ON READER SERVICE CARD



Pipe insulation is of rigid urethane. Shown being installed on dual temperature pipes in a 40-story apartment building in Boston, "Armalok" comes in easy-to-handle 4' lengths, speeds construction

time, reduces costs. White kraft paper and aluminum foil jacket provide a vapor barrier, and the finish is a clean white. Armstrong, Lancaster, Pa.

CIRCLE 227 ON READER SERVICE CARD

Urethane and gypsum system is called "Thermo-Stud". To install, serrated furring channels are embedded in the "Technifoam" urethane building board insulation (photo above left). Then nails are

driven through the furring channels into the concrete, masonry, or brick exterior wall. Finally, the gypsum wallboard is applied with screws (right photo). Celotex, Tampa, Fla.

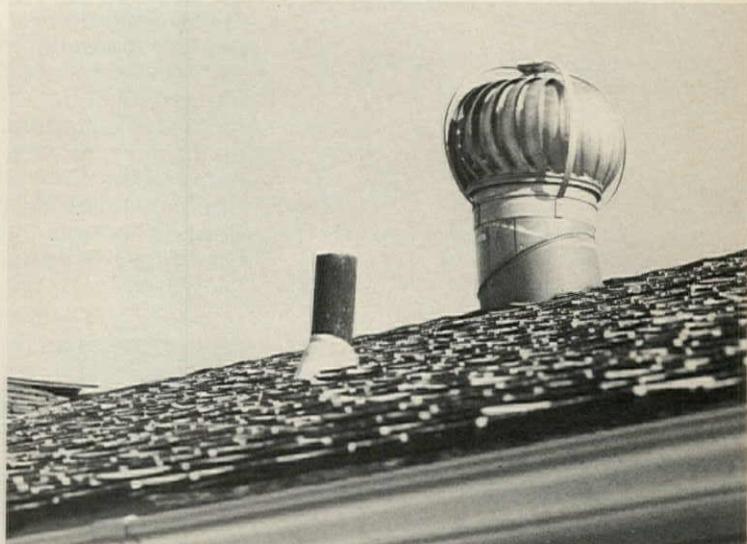
CIRCLE 229 ON READER SERVICE CARD



Low temperature foam system provides a good bond of the urethane foam to substrate or metal even at temperatures down to 28° F. Tested in Alaska's freezing weather, the foam adhered well, showed no

thermal cracking. "Polylite" can be sprayed with standard equipment, has a density of about 2 lbs. per cu. ft., is fire retardant. Reichhold Chemicals, White Plains, N.Y.

CIRCLE 228 ON READER SERVICE CARD



Turbine ventilators, installed on a house roof, remove hot, humid air in summer, keep attic dry and frostfree in winter. There's no motor, so no operating costs. Just a two to three mph puff of air sets

turbine in motion, and a four mph breeze displaces from 215 to 2,700 cu. ft. of air per min, depending on turbine size. Macklanburg-Duncan, Oklahoma City.

CIRCLE 230 ON READER SERVICE CARD

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don't get caught with your pans (shower) down

Sub-floor water damage is no joke... and when shower pan failure is on the second floor or higher, it can be disastrous!

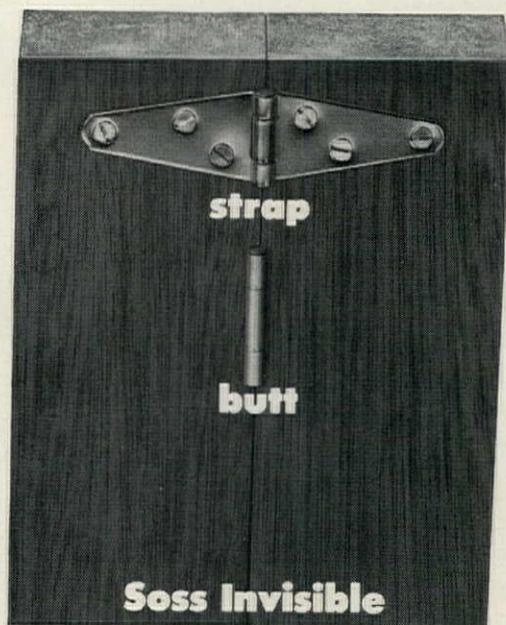
COMPOTITE's waterproof, corrosion-proof, asphaltic membrane seals shower moisture away from vulnerable areas more economically than any other shower pan material. Keeps sub-floors dry, year after year. And the use of COMPOTITE waterproofing results in a fully tiled shower area at no more than the expense of a tub or open-base receptor.



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CIRCLE 106 ON READER SERVICE CARD

Pick the hinge that hides



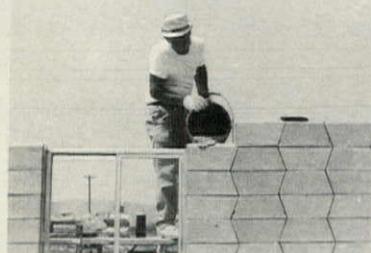
Soss Invisible

Compare the Soss look of invisibility with any strap or butt hinge and you'll choose The Soss Invisibles. These amazing hinges hide when closed to blend with any decor. With The Soss Invisibles you can create room, closet, or cabinet openings which are unbroken by hinges or gaps... the perfect look for doors, doorwalls, built-in bars, stereos, or T.V.'s. The Invisibles are extra strong, open a full 180 degrees, and are reversible for right or left hand openings. See listing in Sweet's or write for catalog: Soss Manufacturing Company, Division of SOS Consolidated, Inc., P.O. Box 8200, Detroit, Michigan 48213.



Urethane foam panels can easily handle the weight of light loading vehicles and the heavy traffic of a pedestrian mall or plaza while providing insulation above an occupied area. Made of high-density, rigid, closed-cell foam cores bonded to asphalt-saturated felt on both sides, they are light in weight (only 1/3 the weight and thickness of cellular glass) and easy to handle. As shown above, they may be simply hot mopped and walked down. And, as shown at left, they may be cut to fit around drains or vents. Apache Foam Products, Linden, N.J.

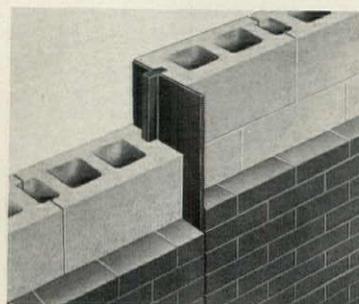
CIRCLE 231 ON READER SERVICE CARD



Low-cost block system needs no mortar. "Wedge Blocks" have twin V-grooves that interlock firmly so hollow cores align vertically. The house above is 25' x 28' with 8'-high walls, 992 ft. of interior walls, four doors, and seven windows. Masonry work was completed in two days at a cost of \$1,209.58. Blocks cost \$634.50; grout for the cores next to windows and doors and at corners cost \$18; and mortar

for the first course came to \$7.02. Labor, including normal mark-up, came to \$550, \$125 lower than \$675 bid. (Other bids ranged to \$1,165.) Pictures show the previously poured slab with bolts protruding, blocks being laid up, grout being poured next to a window, and the closed-in house after two days of work by the carpenters. Wedge Blocks, St. Louis.

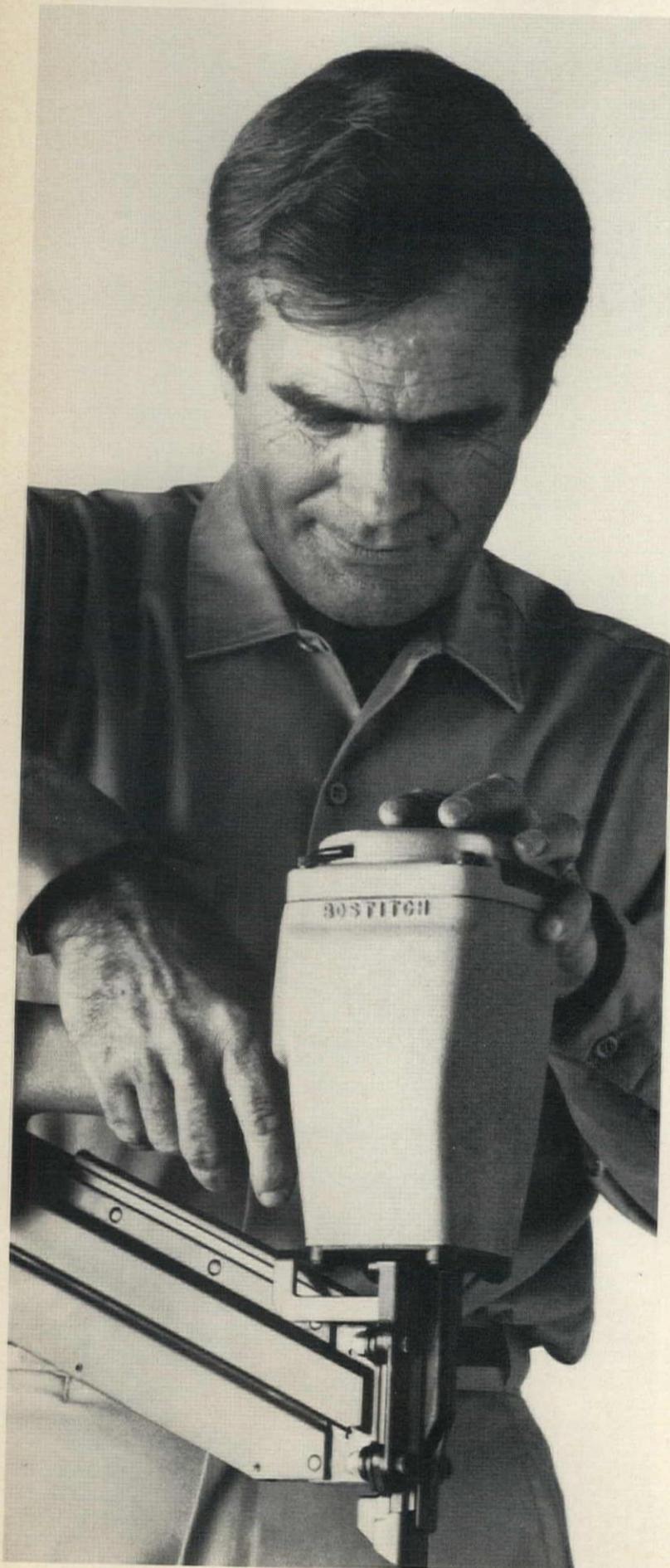
CIRCLE 232 ON READER SERVICE CARD



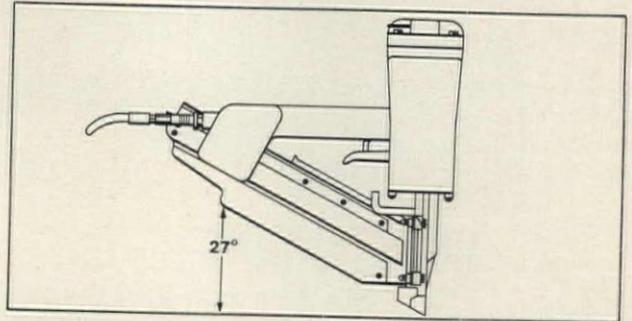
Control joint filler of elastomeric vinyl is designed to relieve stress in the vertical joints of concrete block walls. "Blok-Tite" control joints come 4' long and in widths of 2 1/16", 4 7/8", 6 7/8", 9 1/8", and 11 1/8" to accommodate walls—composite or veneer—up to 13" wide. They fit standard sash blocks. AA Wire Products, Chicago.

CIRCLE 233 ON READER SERVICE CARD

Discover new nailing efficiency: Bostitch 16d Nailer.



The new Bostitch 16d Nailer combines rugged construction with excellent balance in a comfortable tool which speeds framing and other heavy-duty jobs. It is also very easy to use for toe-nailing.



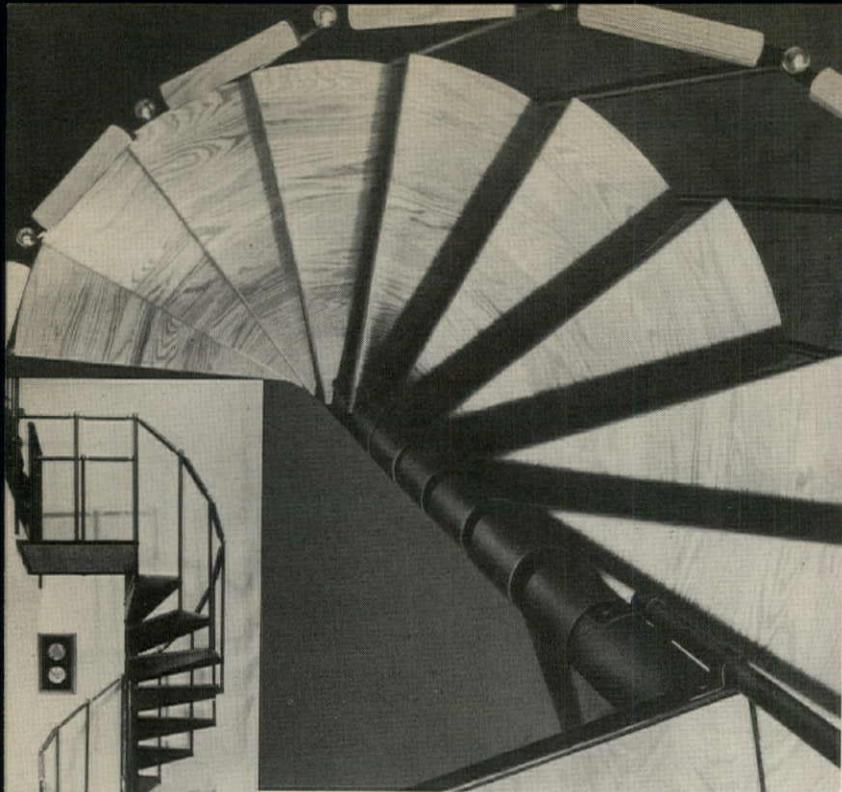
Steep pitch (27°) of magazine makes tool compact in relation to nail load while putting weight at point of impact. Nailer is therefore maneuverable in tight spots and extremely well-balanced, and maximum nailing power is achieved.

Compact sticks of 16d nails load rapidly, let you drive up to 5 times faster than hand nailing without tapes or holders to discard. New 16d Nailer also nails 8d, 10d and 12d nails with no adjustment.

You can hang this machine from overhead, making it easier to operate in the shop. The new 16d Nailer can be fired only when both the manual trigger and the contact trip are activated. Tool can be used for rapid-fire nailing as well as for precise single-shot nailing without adjusting.

Discover the nailing efficiency and handling balance of the new Bostitch 16d Nailer and the complete line of Bostitch tools for the construction industries. Talk to the man with the fastening facts — your Bostitch man. Or write Bostitch, 252 Briggs Drive, East Greenwich, R.I. 02818.

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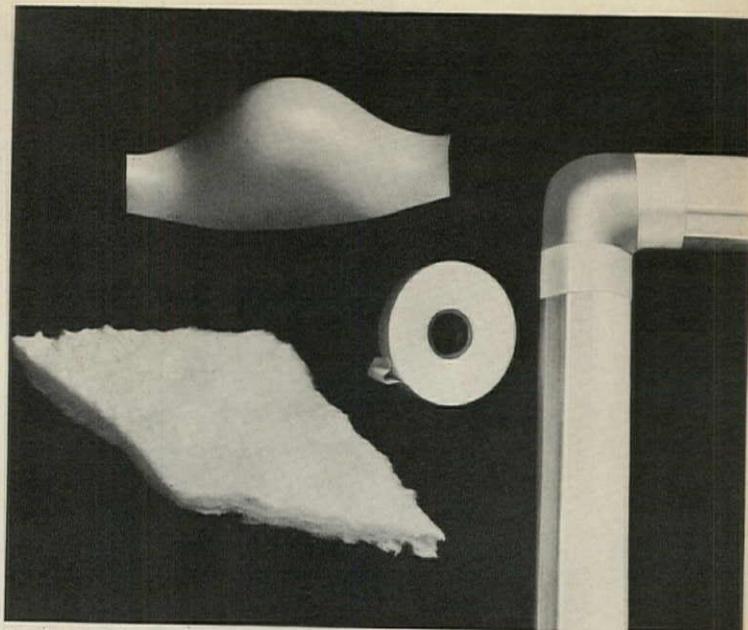
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STUDIO-STAIRS assure "custom-designed" appearance and save substantial space. Each stair is produced to individual job specifications for easy assembly of components.

AMERICAN PANEL PRODUCTS, INC.
1735 Holmes Rd., Ypsilanti, Mich. 48197

CIRCLE 84 ON READER SERVICE CARD

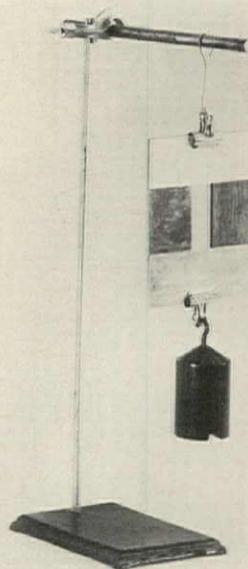
PRODUCTS/STRUCTURAL MATERIALS



Pre-formed fittings are made of semi-rigid PVC. Pre-cut polyurethane foam or fiberglass, furnished with the fitting, is inserted. Then the "Zeston" fitting is hand-formed

around a pipe elbow, tee, valve, or joint, and taped with pressure-sensitive vinyl. Insulates hot or cold pipes. Thermazip, Los Angeles.

CIRCLE 235 ON READER SERVICE CARD



High-strength tape, made of 15-lb.-density vinyl foam, has acrylic adhesive on both sides. Flexible vinyl foam conforms to irregular surfaces, resists most chemicals, plasticizers, water, and fungus. Adhesive, as shown here, is strong enough to hold steel, wood, plastic, and copper together, while supporting a large weight. Arno, Michigan City, Ind.

CIRCLE 236 ON READER SERVICE CARD



Tape sealant for exteriors comes in low-, medium-, or high-density vinyl foam with adhesive on one or both sides. "Foamgard" seals out moisture, dirt, noise, and fumes, and acts as a vibration damper. It has both a high compression rate and high retention. And its water absorption rate is very low, even under high pressure. Blanchard, West Orange, N.J.

CIRCLE 237 ON READER SERVICE CARD

Space-saving packages for fiberglass insulation both stack and pack more compactly than the old-style bulky rolls. "Handle Pak" sleeves are also easier to handle because of a lift-up plastic handle and a strip that "zips" open. New rectangular packages are color-coded by product thickness. Certain-teed Saint Gobain, Valley Forge, Pa.

CIRCLE 238 ON READER SERVICE CARD



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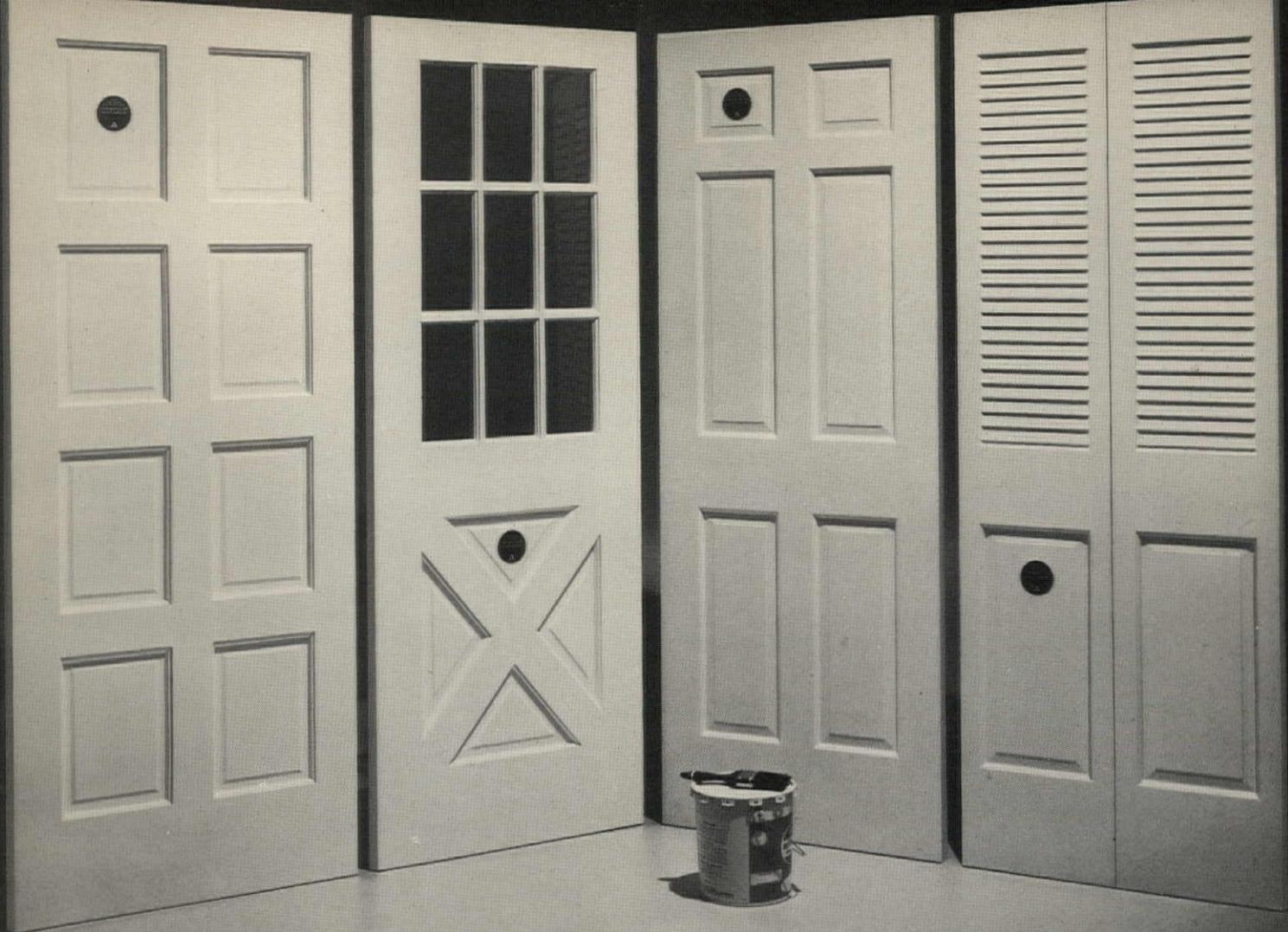
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Doors with this seal of quality cut finishing time and reduce call-backs.

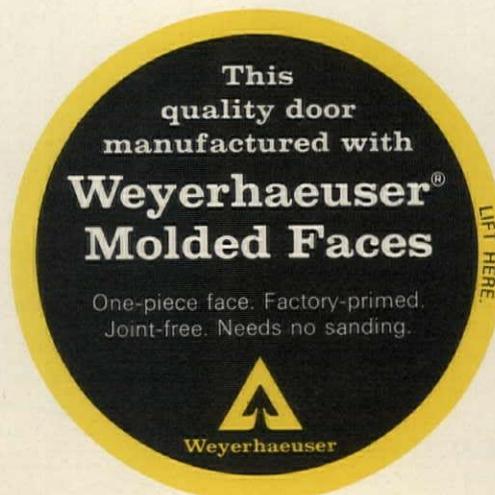
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A dozen companies make these doors. See names at right.



American Door Distributors, Inc.,
Needham, Mass.

Artesia Door Co., Artesia, Calif.

Embler Door Co., Varnville, S.C.

General Plywood Corp., Louisville, Ky.

Glen-Mar Door Mfg. Co., Phoenix, Ariz.

Lifetime Doors, Inc., Livonia, Mich.,

Denmark, S.C., Hearne, Tex., and

Easton, Pa.

Mohawk Flush Doors, Inc., North-
umberland, Pa. and South Bend, Ind.

Morgan Co., Oshkosh, Wis.

Pease Co., Hamilton, Ohio

Premium Forest Products, Ltd.,

Scarborough, Ontario, Canada

Walled Lake Door Co., Richmond, Ind.,

Stanley, Va., Tupelo, Miss. and

Cameron, Tex.

Young Door Co., Plymouth, Ind.
and Sunbury, Penn.

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 Senior Vice President & Secretary



Fire retardant siding remains on the still-standing apartment building above. Fire started in burned-out buildings in foreground, was contained in them by the siding. "Panel 15" credited by fire de-

partment with keeping flames from spreading to the next building. Siding has a pebbled texture, is aluminum bonded to plywood. Weyerhaeuser, Tacoma, Wash.

CIRCLE 239 ON READER SERVICE CARD

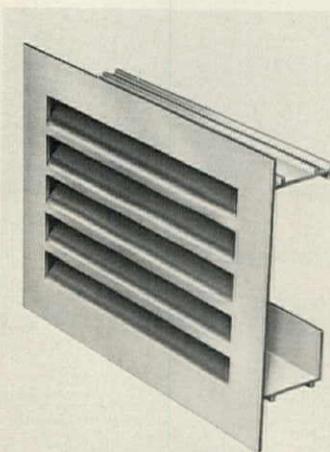
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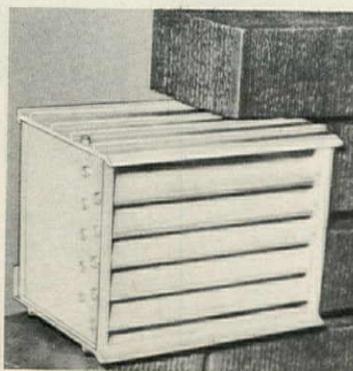


P.O. Box 4907, Carson, California 90745



Flanged brick vent goes in soffit or wall where standard brick vent can't be used. Extruded of aluminum for sharp, clean lines, vent comes in clear or bronze anodized finishes. Fine mesh screen behind louvers keeps out dirt, a continuous drip across top keeps water off the face, and there is an integral water stop. Face is plastic masked to prevent damage during construction. Sizes: from 2½" to 8½" high, from 8" to 50" wide. Construction Specialties, Cranford, N.J.

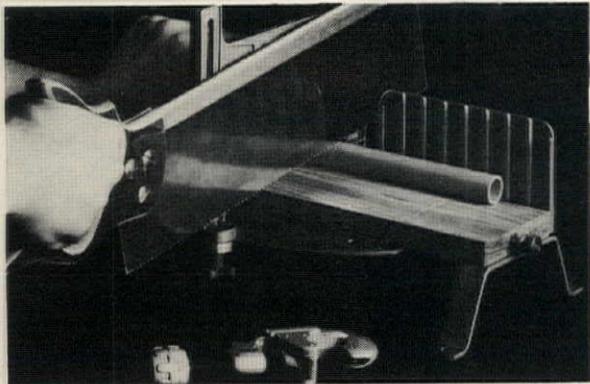
CIRCLE 240 ON READER SERVICE CARD



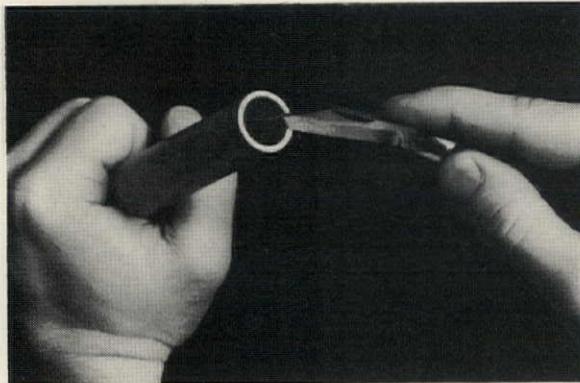
Aluminum vent for brick walls has specially designed blades that keep water out even during heavy storms. The extruded aluminum is protected throughout from pitting and corrosion by an anodized finish. Sylro Products, Merrick, N.Y.

CIRCLE 241 ON READER SERVICE CARD

How to install CPVC pipe for hot and cold water and be sure you are right.



Be sure you cut it square! It's easy in a mitre box. Or use a cutting tool. Pipe made of hi-temp Geon® vinyl (CPVC) is for hot and cold water lines, Geon vinyl (PVC) for DWV, etc.



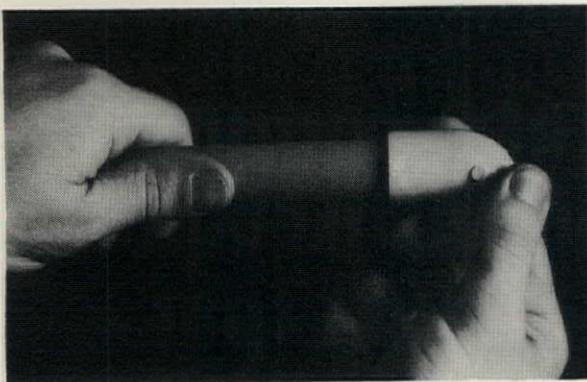
Remove the burrs or ridge from the outside and inside with a knife or tubing reamer. Before you apply any cement, be sure the tubing will enter the socket but not be so loose the fitting falls off.



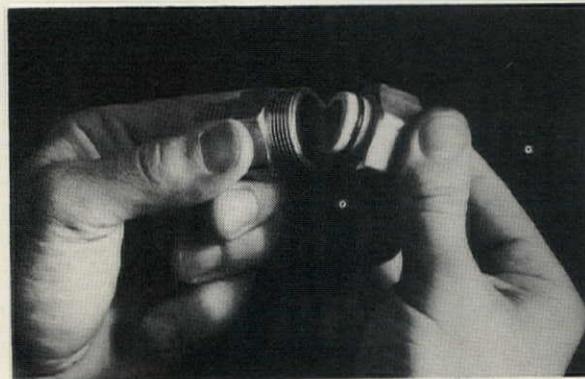
Remove surface gloss from the tubing end and fitting socket with CPVC cleaner or fine sandpaper and wipe clean with a dry cloth. Brush CPVC cement to the inside of the socket.



Then brush cement on the outside of the tubing. Notice how easy it is to handle. Tubing made of hi-temp Geon resists moisture, oil, corrosion, acids, alkalis and other chemicals.



Push the tubing into the fitting. Then give either the tubing or the fitting a quarter turn to insure proper distribution of cement. Immediately adjust for direction. Wipe excess cement from the fitting lip; hold both together for a few seconds.



It's easy to connect hi-temp Geon vinyl tubing to metal lines or valves. A transition fitting like this does the job. Get all the facts about CPVC piping. Write to us for free booklet.

For free illustrated booklet, write **B.F. Goodrich Chemical Company**, a division of The B.F. Goodrich Company, Dept. H-25, 3135 Euclid Avenue, Cleveland, Ohio 44115.

B.F. Goodrich *...in pursuit of excellence*

New flooring styles. Additions to the Armstrong line of resilient floors are shown in a full-color supplement to the manufacturer's 1971 pattern book. Styles shown include "Pallazzo" and "Royal Villa" Solarian; "Coronelle" and "Santa Cruz" Corlon; "Castilian" cushioned vinyl; embossed linoleum; "Craftlon", "Place 'n Press, and regular and custom Excelon tiles. Trims and bonding cement are also featured. Armstrong, Lancaster, Pa. CIRCLE 315 ON READER SERVICE CARD

Ceramic wall and floor tiles. No longer confined to kitchens and baths, decorated ceramic tiles are shown in use in living areas, dining rooms, dens, entries, and patios in a full-color brochure. The tiles in the Franciscan Portfolio are used in continuous patterns over walls and floors and include geometric, contemporary, traditional, Hawaiian, Indian, Mediterranean, and flower designs. Many of the over 267,000 possible color combinations are shown. Interpace, Los Angeles, Calif. CIRCLE 314 ON READER SERVICE CARD

Roofing. A full-color catalog of roofing products including strip and specialty shingles, roll roofing protective coatings, and cements is

available. The catalog is designed for quick reference and includes photographs of the products in use as well as details and specifications for installation. Celotex/Barratt, Tampa, Fla. CIRCLE 313 ON READER SERVICE CARD

New book explains P.U.D. to the decision-makers

Too often, local officials who approve—or turn down—new housing projects simply don't understand what planned unit development is all about. Now, a new book, written in laymen's language, tells the P.U.D. story to the laymen who make up zoning, planning, and town boards.

"PUD: A Better Way for the Suburbs" was written for the Urban Land Institute by Maxwell C. Hutton Jr., a HOUSE & HOME senior editor. The full color, 72-page book gives a history of P.U.D., discusses current suburban response to the concept, and describes P.U.D. from the viewpoint of those most affected by its advent: the community resident, the planning board member, the designer, the developer.

Because the non-professional's

National housing goals. The Committee on Housing and Development of the University of Illinois at Urbana-Champaign has issued the results of a study by Prof. James R. Cooper on the outlook for the 1968-78 national housing goals.

difficulty in evaluating P.U.D.s often stems from his inability to visualize the finished product, a large portion of the book is devoted to 12 case studies. These projects, located in seven states and Canada, were chosen as representative of the diverse aspects of the P.U.D.

Each case history is accompanied by illustrations, photos—many in color—and site plans. There is complete statistical information: acreage; land use breakdown (residential, commercial, recreational, open space); number, size, and type of residential units; and rental and/or sale prices of residential units.

The 9"x12", soft cover book is available from the Urban Land Institute, 1200 18th Street, N.W., Washington, D.C. 20036. ULI members send \$8; nonmembers, \$10.

The author finds that the plan entails an appropriation commitment of more than \$40 billion until 2010 A.D. The study of the social, economic, and political forces involved in the housing goals program is available for \$3 per copy from the Committee on Housing Research and Development, The University of Illinois at Urbana-Champaign, Room 360, Armory, Champaign, Ill. 61820.

Heat/air conditioning. A combination gas heating and electric air conditioning unit which can be installed on the roof or on a slab outside the building is the subject of this new full color brochure. The "Econoair" is available in sizes ranging from 1½ to 30 tons of cooling, with 40,000 to 800,000 BTUH of heating. Payne, La Puente, Calif. CIRCLE 312 ON READER SERVICE CARD

Plank Paneling. This brochure contains plank paneling facts: installation data, species, grades, widths, lengths, thicknesses, and finishes. It pictures 13 solid hardwood varieties in full color. Townsend, Stuttgart, Ark. CIRCLE 311 ON READER SERVICE CARD

TO PAGE 90

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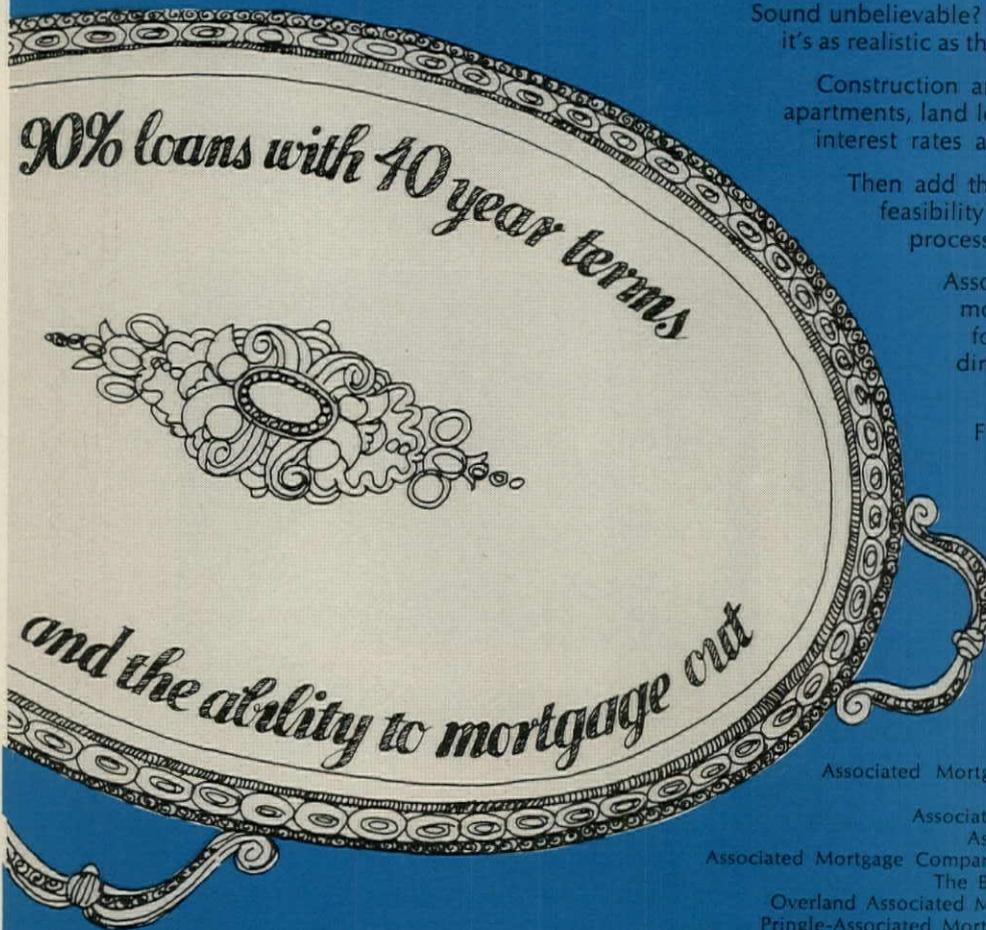
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turns into small pebble-like pieces that are very unlikely to cause serious injury.

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LITERATURE

Air pollution. A valuable publication for the citizen concerned about the environment is "Your Right to Clean Air—a manual for citizen action," published by The Conservation Foundation, Washington, D.C. The 109-page booklet explains the causes of various types of air pollution and gives valuable information for the layman trying to do something to help. There are notes on pollutants, a list of Air Quality Control Regions, hints on organizing and running citizen action groups. Also included is a list of citizen committees across the country that are already active in fighting pollution, and a bibliography of helpful publications and films.

CIRCLE 310 ON READER SERVICE CARD

Interior paneling. The first of 16 chapters in a product training manual is devoted to interior paneling and is 26 pages long. Removable file sections cover panel selection and application, moldings and fittings, related tools and hardware, and a glossary of terms. Described are: types of paneling, edge styles, patterns, and textured surfaces. A selection chart compares composition, standard sizes and thicknesses, colors, and surfaces. Single copies are \$2 each, multiple orders of more than ten cost less. Write directly to The Retail Lumber Dealers Foundation, Dept. HH, 339 East Avenue, Rochester, N.Y. 14604.

Foam-core doors. Exterior, interior, patio, and special privacy doors of foam-core steel construction are the subject of the 1971 full-color catalog. In-depth information explains the virtues of foam-core steel construction—the elimination of warping, sagging, shrinking, and swelling. Also featured in the catalog is information on sidelight, toplight, and venting options, along with installation instructions. Ever-Strait, Hamilton, Ohio.

CIRCLE 309 ON READER SERVICE CARD

Ceramic accessories. Door knobs, drawer pulls, drawer knobs, escutcheons, push plates, and light switch plates in many decorative ceramic styles are described with full-color illustrations in the manufacturer's new catalog. The hand-decorated accessories are also rust-proof and easy to clean. Towne, Rye, N.Y.

CIRCLE 308 ON READER SERVICE CARD

Mobile home parks. An in-depth study of home parks is the first in a series of technical bulletins issued by the Urban Land Institute. Part 1 of the mobile home parks study analyzes technological developments, costs and financing, ownership and management, occupant characteristics, marketing factors,

taxation, and many other factors involved in mobile home parks. A preliminary discussion of mobile home park planning and design considerations is also included. The booklet also contains statistical tables, photographs, site plans, and an extensive bibliography. Urban Land Institute, Washington, D.C.

CIRCLE 307 ON READER SERVICE CARD

The outdoor room. New homes or remodelings get the added advantage of outdoor living with the addition of an outdoor room as described in a new design and idea booklet. Outdoor rooms are less costly than atriums and courtyards because they are added outside the building walls. They can extend from any room in a house—bedroom, kitchen, dining room, living room, or bath. The booklet shows various applications of the outdoor room concept in full-color drawings, plans, and photographs. Western Wood Products Assn., Portland, Ore.

CIRCLE 306 ON READER SERVICE CARD

Wood screens and panels. Twenty "Sculpturewood" patterns available in $\frac{3}{4}$ " and $\frac{1}{2}$ " panel and screen widths are featured in a full color catalog. Offering dividers, walls, and doors, in walnut, birch, poplar, oak, and ash, the series is illustrated in closeups and long shots. Penberthy Architectural Products, Los Angeles, Calif.

CIRCLE 305 ON READER SERVICE CARD

Doors. A full line of birch, hardwood, lauan, oak, and vinyl-clad doors has been featured in a 1972 catalog. The full color booklet includes architectural, bifold, colonial panel, decorator, exterior, flush, institutional, interior, laminated, lighted, machined, prefinished, warpfree, and wrapped wood doors. Mohawk Flush Doors, South Bend, Ind.

CIRCLE 304 ON READER SERVICE CARD

Windows. Fifteen reasons to use wood windows are presented in "The Many Advantages of Wood Windows". A comparison of wood to other types of window is made. National Woodwork, Chicago, Ill.

CIRCLE 303 ON READER SERVICE CARD

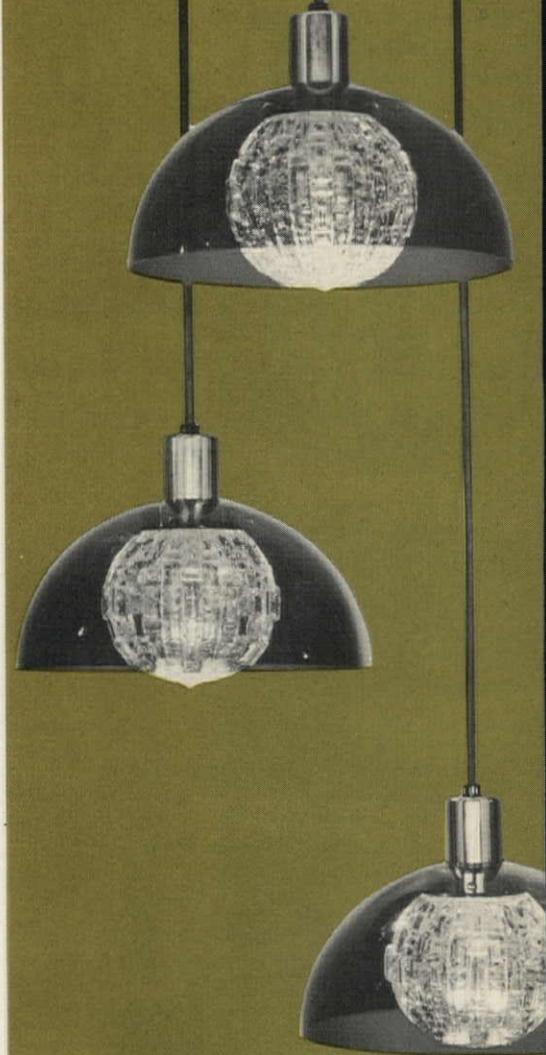
Paneling. This full color folder describes three lines of marble patterned paneling. Melamine-coated, the paneling has matching mouldings and is mar and moisture resistant. AFCO, Houston, Tex.

CIRCLE 302 ON READER SERVICE CARD

Vents. Extruded and cast aluminum brick vent data is featured in this updated brochure. It is illustrated with photos, drawings, and tabular forms. Sylro Products, Merrick, N.Y.

CIRCLE 301 ON READER SERVICE CARD

SMOKY



Combine the warm glow of smoked bronze acrylic domes, hexes and squares with the glitter of crystal... effect new moods, new accents in lighting.

Virден does it with verve...

13 new models that mix acrylic, crystal and chrome. Over 800 other fixtures, too. All colorfully displayed on the 112 pages of the '72 catalog.



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ADVERTISERS INDEX

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- A Architectural File (green)
- I Industrial Construction File (blue)
- L Light Construction File (yellow)
- D Interior Design File (black)

- W Denotes Western edition
- M denotes Mid-Western edition
- N denotes North Central edition
- E denotes Eastern edition
- S denotes Southern edition
- SW denotes Southwest (Swing)

A	
Alliance Mfg. Co.	81
A American Panel Products, Inc.	84
A American Standard Inc.	5
Amsterdam Corp.	24, 25
A-L Andersen Corp.	14, 15
A-I-L-D Armstrong Cork Co.	Cov. III
Associated Mortgage Co.	88
B	
B.F. Goodrich Chemical Co.	71, 87
Blu-Ray, Inc.	36
Botitch (Textron, Inc.)	83
C	
Cameron Brown Co.	76S2-S3
Capital Industries, Inc.	76E1, N1
A-L Caradco Div. (Scovill Mfg. Co.)	40
Colonial Products Co.	73
Combustion Engineering	22-23
A-L Compotite Shower Pan	82
E	
Edison Electric Institute	38
A-I Emerson Electric Co. (Chromalox Comfort Conditioning Div.)	31
G	
Gerber Plumbing Fixtures Corp.	19
H	
Home Comfort Products Co.	67-68
J	
Job Market	74
K	
Kemper Brothers, Inc.	Cov. II
Kingsberry Homes	17
Kwikset (Div. of Emhart Corp.)	9
L	
A-I-L Libbey • Owens • Ford Co.	89
Lear Siegler, Inc.	76M1
M	
Marvin Windows	27
Modular Directory of Housing Producers ...	39
A-L Moen Div. (Stanadyne)	37
N	
NuTone, Inc.	1-2
P	
A-I Philip Carey Co. (Div. of Panacoin Corp.)	Cov. IV
Plan-Hold Corp.	86
A-L Potlatch Forests, Inc.	11
Products '72	35
R	
Redman Industries, Inc.	90
A Rohm and Haas Co.	33

S	
Sales Action & Measurements	34
A-L Schlage Lock Co.	21
Senco Products, Inc.	79
A Soss Mfg. Co.	82
Southern California Gas Co.	76W1
Sweets Light Construction File	92
U	
A-D Urethane Fabricators (Lite Beams Div.)	36
V	
Viriden Lighting	91
W	
Wachovia Mortgage Co.	76S1
Welsh Kitchens	13
A-I-L Weyerhaeuser Co.	29, 85
A-L Whirlpool Corp.	6, 7

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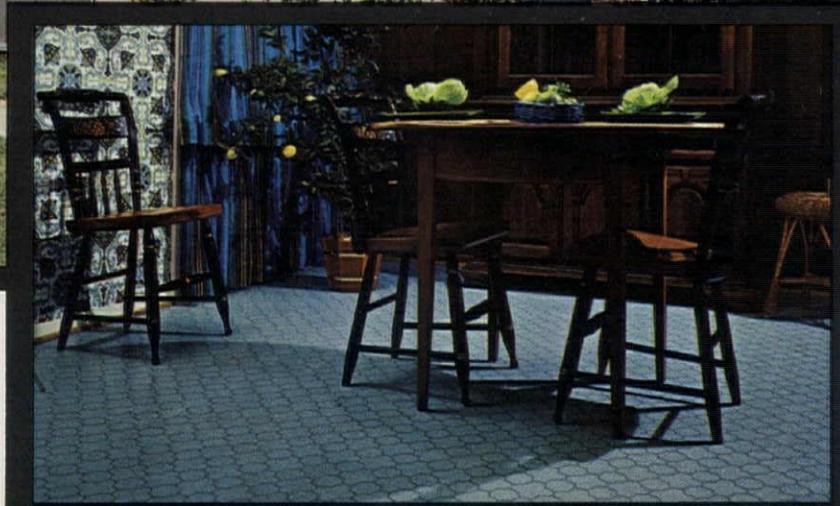


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Sweet's Light Construction Catalog File where reference turns to preference



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“Easily recognizable names like Armstrong are a big advantage. And the Armstrong line is sufficiently broad to meet the needs of the people buying our homes.”

“People are more aware of color and design today . . . and they’re not afraid to use them. They’re proving this with Armstrong floors they’re choosing.”

“Service is the answer to the whole thing. When we pay the market price for a product, we expect it to be right. That’s why we’ve been using Armstrong exclusively since 1963.”

“We’re moving toward sheet vinyl as the standard in our homes—because Armstrong delivers the style and quality women want.”

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