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Adds value to your homes

Village Square™ is Congoleum-Nairn's newest cushioned sheet vinyl in the Comfortflor® series.

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Available in 4 attractive brick colors: red, brown, green and beige. Village Square goes well in kitchens, family rooms, halls . . . makes any room seem larger . . . look lovelier.

Village Square is made with the builder in mind, too. Co tinuous 6' width means fewer seams. Clear Felt backir makes it easier to install. Embossed design hides underflo

irregularities. And with all these wonderful advantages, Village Square is surprisingly low in cost ... fits almost any building budget.

For free sample or other information, write to Congoleum-Nairn, Inc., Kearny, New Jersey 07032.



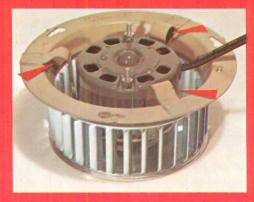
A comprehensive Home Builder Program has been developed to help you sell your product faster. Write Congoleum-Nairn. Builder Service Department.

NuTone Heaters Are Built <u>Better</u> at All Vital Points to Give You

TROUBLE-FREE PERFORMANCE



JUST "PLUG-IT-IN" . . . The complete "B" Unit! You don't risk faulty on-job wiring.

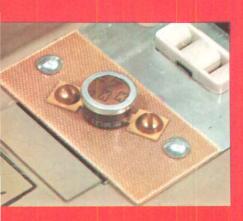


THEY'RE QUIET!

Motors are spring-mounted for less noise, with maximum power.



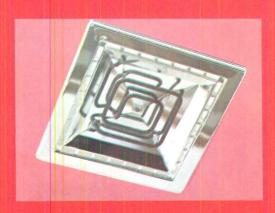
THEY'RE "SAFE"!
Every model is U. L. listed and meets national and local Codes.



NO "NUISANCE TRIPPING"! Automatic Reset Thermal Protectors guard against overload.



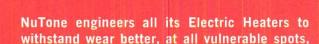
EASY "DIAL" CONTROL Switch-Plates are prewired and cased in heavy Die-Cast Frames.



WIDE-ANGLE HEAT!
NuTone Reflectors are engineered for more even heat distribution.



SEE NEXT PAGE -



to spare you troublesome service headaches.

And you get this protection at no extra cost!

If there's one thing Builders and Contractors hate, it's complaints from homeowners about Heaters which fail to operate properly. Even worse are the costly service "call-backs".

SAVE 3 WAYS with **NUTONE** HEATERS

See previous page

Get Better Values

Why take chances, with heaters that use short-cuts at the crucial places . . . where breakdown and failures are most common?

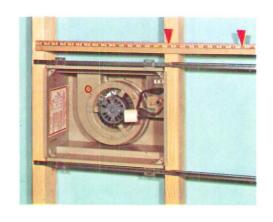
NuTone Heaters offer an EXTRA measure of quality there, to insure a longer life of dependable operation under hardest use.



Easier to Install

Why run your cost up with heaters which take more time and money to install?

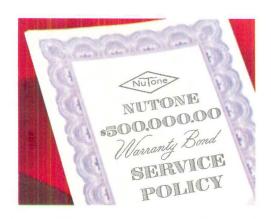
NuTone's Adjustable Hanger-Bars offer you quickest mounting between 16" or 24" OC studs. And NuTone's Plug-In "B" units save hours of on-job time.



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OUSE & HOME Feb. 1967, Vol. 31, No. 2. Published onthly by McGraw-Hill Inc. Founder: James H. McGraw 1860–1948). Subscription rates for individuals: U.S. and ossessions and Canada, \$6 per year; single copy, if available, \$1; Latin America & Philippines, \$20; elsewhere, 25. Executive, Editorial, Circulation and Advertising ork, N.Y. 10036. Telephone: 971–3333. Second class ork, N.E., Published at 1500 Eckington Place, N.E., Oshiga paid at Washington, D.C. 2000.2. Title & in U.S. Patent Office. Opyright & 1967 by McGraw-Hill Inc. All rights re-roduced either in whole or in part without consent of pyright owner. Officers of McGraw-Hill Publications: osseph H. Allen, president; Bayard E. Sawyer, executive ce president; Robert F. Marshall, senior vice president; Sohn M. Holden, marketing; Huber M. Gemmill, circuland; Allend, Proposition of the content of the board; Shelton Fisher, president; L. Keith Goodrich, Donald C. McGraw Jr., obert E. Slaughter, executive vice presidents; John Cooke, vice president and secretary; John L. McCraw, treasurer. Member: Audit Bureau of Circulations of American Business Press. This issue of House & Home, published in national and separate editions noted or publi

House & Hon

A McGRAW-HILL PUBLICATION

VOL. 31 NO. 2

FEBRUARY 1967

EDITORIAL

Why should pension funds be interested in buying mortages? Because mortgages offer the funds a higher yield than high-grade bonds, plus diversification, flexibility, security, convenience, and social benefit

DESIGN

For the P.U.D.: a new kind of planning and design service 84 Architect Dick Leitch wraps all planning and design into a single package and even delves into merchandising. Here's a case study of a typical project

CONSTRUCTION

How a lumberyard beats the prefabbers at their own game Davidson's Lumber Co. supplies every type of builder in the Indianapolis market by stressing production flexibility and a special brand of service

MANAGEMENT

102 The case for-and against-joint ventures More and more builders have teamed up with others to solve money, land, and management problems. Here's a wrap-up of their experiences—good and bad

MARKETS

150 sales a year without mortages or construction loans 108 That's the year-in, year-out record of Detroit's Jim and Charles Babcock. How do they do it? By selling co-op apartments to elderly buyers for cash

PROFILE

What homebuilding can expect from NAHB's new president 111 Leon Weiner, a driving innovator who survived some rough battles on his way to the top, outlines his ambitious goals for the housing industry

NEWS

LBJ's economic spotlight shines on homebuilding Also: Aluminum producer starts building a four-bedroom, two-bath house in the \$10,000 range . . . Mortgage rates take the big turndown . . . Builder Lou Lesser looking for another rabbit trick

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Cover photo: Joseph Molitor (see p. 84)

NEXT MONTH

Can computerized market research really help builders? . . . A portfolio of significant new apartments and townhouses . . . How builders are making money with sectionalized houses . . . Condominiums: how to introduce them successfully to a new market area



Anaconda copper tube and fittings install easier, last longer, add more value to your homes than substitute materials, for a scarcely noticeable difference in costs!

Look at it this way. ALL-COPPER plumbing in your homes can provide your buyers with one of the most desirable features they could ask for. And provide you with one of the most efficient building operations you've ever seen.

Anaconda copper tube for water supply, sanitary drainage and hydronic heating can all be installed by the same team, using the same tools and with the same time-saving installation methods.

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In short, ALL-COPPER plumbing is one evidence of quality construction which is quickly recognized and ap-

praised by home buyers. And this sales advantage can be yours for little, if any, additional cost.

Don't use substitute materials in the belief that copper is not available. In 1966, the industry produced and shipped more than 400 million pounds of copper tube and pipe for general plumbing. Proof of its availability—and salability.

Your plumbing contractor can readily obtain Anaconda Copper Tube and Fittings from leading plumbing and heating wholesalers. For sources of supply in your locality write Anaconda American Brass Company, Waterbury, Connecticut 06720. In Canada: Anaconda American Brass Limited, Ontario.

ANACONDA AMERICAN BRASS COMPANY

LBJ's economic spotlight shines on homebuilding for '67

The homebuilding industry is playing a ar more important role in 1967 economic ecisions by President Johnson and his conomic advisers.

The change from 1966 policy was evient in the President's three major messages ast month: the state of the union, the udget, and the economic messages. Furthermore, as far as can be determined, the rederal Reserve Board is relying on pentago demand for housing to provide a boost to the economy in the latter half of 1967.

The President's concern for home buildrs contrasts vividly with earlier White House opinion on the plight of homepuilders. Six months ago builders bore the brunt of a tight-money policy that slowed inflation and dried up housing's money.

But the tangible value to homebuilders of this changed attitude probably won't how up for quite a while. The President's major economic proposal—a 6% income ax surcharge—has a bare 50-50 chance of being approved by Congress—and not pefore June.

"More money . . ." In fact, many eactions to the President's surcharge proposal indicated that he might not push too hard for it in Congress.

The President's attitude toward the economy was one of grim pursuit of existing policies.

Actually, the various indicators highighted by the President were all favorable —interest rates retreating from earlier peaks, lower wholesale prices, "more money now seems to be available, and . . . I'm confident this movement can continue."

Significantly, the President took special note of the plight of homebuilding:

"Our greatest disappointment in the economy during 1966 was the excessive rise in interest rates and the tightening of credit.

"They imposed very severe and very unfair burdens on our home buyers and on our homebuilders and all those associated with the home industry."

Bone toss. To ease the homebuilders' plight, President Johnson used the historic platform of a "State of the Union" address to announce release of \$1 billion in special assistance money by the Home Loan Bank Board. It is to be lent to savings & loan associations at 5¾% interest (p. 10).

The President's restrained discussion of domestic programs affecting homebuilding indicated the extent to which urban development has supplanted traditional housing programs as the concern of the new Housing & Urban Development Dept.

LBJ pledged full and complete support for his "model cities" program—all \$400 million worth. He said that technology and private enterprise are necessary in rebuilding cities. And that was all he said.

Not so fair. For civil rights advocates, the President's words were discouraging. On the issue of anti-bias in housing, he said only, "We should find a solution to

fair housing so that every American, regardless of color, has a decent home of his choice." The reaction to the half-hearted words was immediate: Daniel Moynihan, former Labor Dept. official, pointed out that LBJ did not repeat last year's pledge for a fair housing proposal.

"Rather he said we must find the solution to fair housing," Moynihan said. "It suggests his feeling that we simply do not now have a solution."

in Congress later this year remains to be seen, of course. But some subjects omitted by the President (start-up of the Nike X anti-missile missile program, for instance) are likely to attract more of the congressmen's attention than some of the ideas suggested by LBJ. Too, the Southern Democrat-Republican coalition has far more power in the House this year.

From an economic viewpoint, the President's messages, and congressional reaction to them, indicate no basic changes in the economic situation for six months.

Tight money is loosening up, apparently fast enough to suit the President.

He's concerned about homebuilding, but not overly so.

All in all, the basic relief for the home mortgage market will grow out of overall economic considerations, not because federal policies stimulate homebuilding.

And that, presumably, is just the way LBJ wants it.

Ex-Sen. Douglas leads the President's land-use study

President Johnson has appointed former Illinois Sen. Paul Douglas to lead a White House commission on codes, zoning, taxacion, and development standards.

Sen. Douglas, a Democrat and nationally known economist and author, served 18 years in the Senate before being defeated for re-election last November.

The 15-member commission will study the legal and economic problems and processes affecting the entire range of housing.

National Publishing Co.



EX-SEN. DOUGLAS

No retirement from public life

"These processes have not kept pace with the times," President Johnson said.

The President proposed the commission in March 1965, predicting that it would "emerge with ideas and instruments for a revolutionary improvement in the quality of the American city." It was October 1966 before Congress appropriated \$1.5 million, so appointments were delayed.

The Commission includes Richard W. O'Neill, editor of House & Home since 1964. Other members:

Architects—Lewis Davis, New York City designer of middle-income housing projects; Ezra Ehrenkrantz of San Francisco, a design innovator who has formed Building Systems Development Inc.; Jeh Vincent Johnson of Poughkeepsie, N.Y., who instructs at Vassar College, and Chloethiel W. Smith, Washington apartment-design award winner.

Officials—David L. Baker, a supervisor in Orange County (Anaheim), Calif.; Thomas vanDergriff, mayor of Arlington, Tex. and president of the North Central Texas Council of Governments, and former Gov. Carl E. Sanders of Georgia.

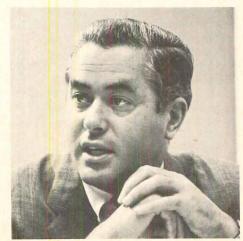
Academicians—John DeGrove, professor at Florida Atlantic University in Boca Raton; Anthony Downs, economist and treasurer of Real Estate Research Corp. in

Chicago, and Coleman Woodbury, professor of urban affairs at the University of Wisconsin.

Builder—Richard H. Ravitch, vice president of HRH Construction Corp. in New York City, builder of renewal apartment projects in New York and other cities.

Lawyer-Hugo Black Jr., Miami.

Labor leader—John Lyons, president, International Association of Bridge, Structural and Ornamental Iron Workers.



A new view of housing



NEW SENATORS meeting Vice President Humphrey, include (l. to r.) Ernest Hollings (D.,S.C.), Clifford Hansen (R.,Wyo.), Mark Hatfield

(R.,Ore.), Humphrey, Charles Percy (R.,Ill.), Howard Baker (R.,Tenn.) and Edward Brooke (R.,Mass.).

Washington's scramble for housing innovation: Fresh GOP faces scratch for fresh ideas . . .

Illinois Sen. Charles Percy, Republican, presses a new "home ownership" plan.

Massachusetts Sen. Edward Brooke, Republican, talks of a similar proposal.

New Jersey Rep. William Widnall, Republican, proposes (and gets enacted) "rent certificates" and many other policies.

New York Sen. Jacob Javits, Republican, draws up preliminary plans for a "Comsat"-type housing organization but scuttles it as impractical well before the White House looks over and rejects HUD's version of a similar plan (below).

These are but some of the various ways that Republicans, after years of quiescence in housing matters, have quietly but effectively taken the lead in initiating new housing programs in Congress.

For the most part, Republicans who know a little about housing programs—including some freshman Senators—have come up with the new ideas because they don't have to stake their party's reputation on how the ideas will pan out.

While the GOP is proposing more, the Democratic party—and particularly the Administration—hasn't been silent. The rent-supplement scheme, the model-cities program, and the new-town insurance concept, for example, are all Democratic ideas. And so far, all have had more impact on housing than the GOP proposals.

But the fact remains: Many Republicans are now seizing the initiative in suggesting new ideas for housing. Why?

This may be because Democratic thinking is too influenced by the housing experts, who are burdened by public-housing and urban-renewal dogma. It may be because the Republicans desperately want to establish a reputation for doing something constructive for city voters. Or it may be because the minority leader on the House housing subcommittee, Rep. Widnall, is an active man from an urban area.

Whatever the reasons, the Democratic administration is no longer the sole fountainhead of innovation in housing.

at a retreat for deep-think brainstorming

Last summer HUD Secretary Robert Weaver gathered the nation's top scientists for what he hoped would be the first of several conferences on the problems of the cities.

One group studied construction of new housing, another rehabilitation of existing slums. Their way-out prescriptions, revealed last month: "Incentives for newer, more exciting technologies" for homebuilding and a "Comsat"-approach to rehabilitation.

The latter was seized by HUD's experts, polished to a glitter, and then sent to the White House for approval (NEWS, Jan.). Back it came on its ear, rejected by the White House coterie as impractical.

As for the proposed incentives for new technology, they never got as far as the White House. Hud simply wouldn't go for the bromide that more research can pro-

duce lower costs for new construction.

The 50 or 60 experts were convened by HUD and Donald Hornig, White House science advisor, in hopes that top scientific minds could apply systems analysis to the cities' crisis. The group met for three weeks at Woods Hole, Mass.

While the test-tube approach produced no specific ways to cut construction costs, it worked rather well on environmental problems. Some intriguing—if impractical—ideas:

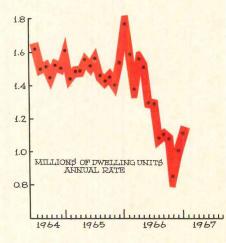
- Taxing "throw-away packages" that end up causing litter.
- Building utility tunnels to avoid tearing up streets for repairs. Possibly freight could be moved through the tunnels.
- Using the subways to remove trash at night, thereby keeping trash trucks and litter off the streets.

 —JOHN NICHOLSON

WASHINGTON WIRE

Housing on the way up

Private housing starts advanced for the second consecutive month in December, rising 9.4% to an annual rate of 1,102,000 from November's revised rate of 1,007,000. The November figure was 18.8% above October's 846,000, lowest rate in 20 years. Total starts in 1966 wound up at 1,250,000, precisely the prediction of Chief Economist George A. Christie in House & Home in November. Permits, reflecting construction months in advance, rose to 772,000 in December from November's 715,000. The housing turnaround reflected wider availability of mortgage money and easier credit (see p. 10).



Tax sag for non-profit sponsors

The Internal Revenue Service is re-examin ing its policy on granting tax-exempt status to non-profit housing corporations formed to sponsor Sec. 221d3 or rent supplemen projects. In wants to figure out some criteria for distinguishing between charitable and pseudo-charitable sponsors. Mean while, the backlog of d3 sponsors seeking tax-exempt status is growing.

Ready or not, on to Chicago

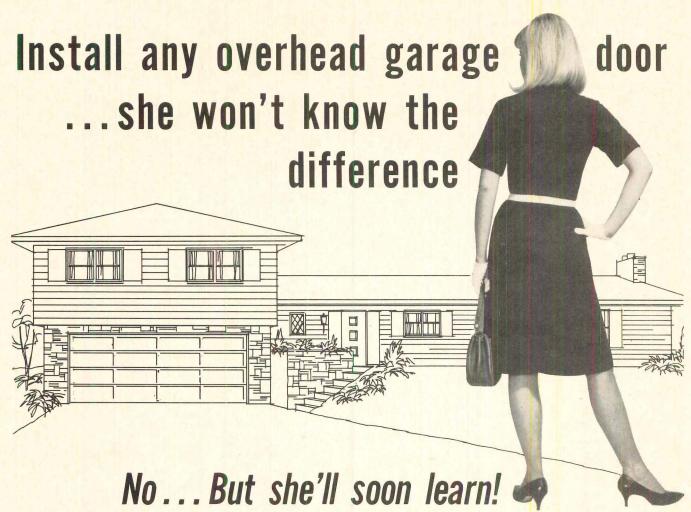
NAHB will go ahead and stage its annual convention and exposition in Chicago Dec 3-7, 1967, despite a mid-January fire which ravaged McCormick Place. Exhibits and meetings will be dispersed into several Chicago hotels.

Sparkman step-up

Sen. John Sparkman (D., Ala.) become one of the Senate's most powerful voice in economic matters this year. He take the chair of the Senate banking and cur rency committee while remaining at the helm of its housing subcommittee as well

Apartment processing revamp

FHA is starting to test some new ways of cutting processing time for apartment nearly in half—from an average of 1 months to six months. Three offices—Chicago, Milwaukee and Phoenix—will test this new format: Prospective sponsors will first be interviewed intensively on their plans instead of filing a request for prepaplication review, Form 2012. If the project is sound, the sponsor then will proceed to final processing of financial details. As FHA architect will work with the sponsor architect. FHA also is changing its hide bound quantity cost estimates to estimate by square footage.





She'll learn . . . when the door becomes hard to open, the elements take their toll, and the metal parts need replacement.

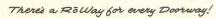
That's when your overhead goes up, not down, through expensive service calls and constant customer complaints.

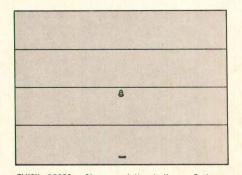
Protect your reputation by installing RōWay doors. It will cost you less because RōWay doors stand the test of time.

Insist on and install the best...

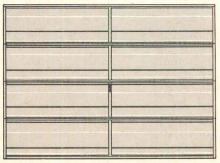


of course

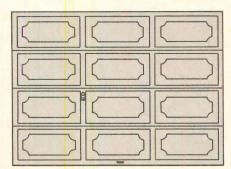




FLUSH DOORS — Clean, uncluttered lines. Features assure smooth and quiet, easy up . . . easy down, operation.

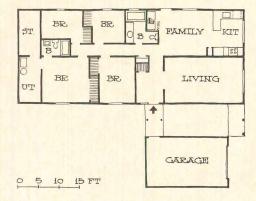


ALUMALUX — Translucent to lighten, brighten interior. Handsome and lightweight, but long-wearing.



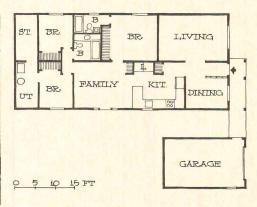
RAISED CARVED — Sound design, top quality materials, superb construction.





GABLE-END EXPOSURE is de-emphasized by side-entry plan with four bedrooms, two baths, and 1,368 sq. ft. Retail price: about \$11,840 plus lot.





SAME ORIENTATION of gable end as above is masked by walkway. Model contains three bedrooms, two baths, and 1,296 sq. ft. Price: \$11,250.

On the way: furnished 4-bedroom, 2-bath house for \$11,840



LIVING ROOM comes with furniture, carpeting



KITCHEN of Alcan model includes all built-in appliances and dining-area furnishings.

The four prototype houses above are the newest and most promising entry in housing's most treacherous post-war derby, the search for a cheap, yet versatile, industrialized house

Surprisingly, hard-nosed housing men who have seen the search bring heartbreak to dozens of talented architects and financial ruin to a score of companies (H&H, Dec.) still rate this entry an even chance for success. Their optimism stems from the impressive sponsorship behind this new entry: Alcan Design Homes of Toronto and its parent, Aluminum Company of Canada, one of North America's largest aluminum producers.

Initially, Alcan Design Homes will build the sectionalized houses at an assembly plant to be erected within 100 miles of Toronto. First models are due Aug. 1.

Unlike other materials producers who have taken a run at the sectionalized house, Alcan directors have made a long-term commitment to their diversification into housing. They were cautioned by ADH President John C. Neely not to diversify into housing unless they were prepared to make a five-year commitment. They agreed, perhaps because Neely succeeded with an earlier five-year plan to create ADH from scratch, has made the company Canada's largest single-family house builder (H&H, Sept.).

Borrowing from Detroit. Neely and ADH have spent two years adapting automotive assembly-line techniques to housing. The result is four prototypes erected in both Toronto and Montreal, all variations upon a basic rectangle, 24' wide and

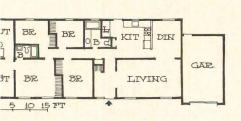
46', 54', or 57' long. The models escape a look-alike pallor through a variety of treatments of garages, carports, and walkways, and through locating entrances on both the gable end (left, above) and long side of the rectangle (right, above).

Aluminum siding clads many models but all have the unmistakable appearance of a conventionally built house.

While the look is conventional, the assembly is straight from Detroit and the erection right from the mobile-home makers. For in reality these are dressed-up versions of the double-wide mobile home The models will be shipped from ADH's factory in two 12' sections to be joined on the site.

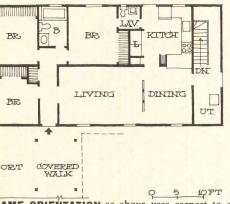
will let builder-dealers sell these Alcar Universal houses at prices (minus land) ranging from \$9,855 to \$12,160 in Canadian dollars (or \$9,138 to \$11,275 in U. S. dollars.)—prices aimed to attract buyers under \$5,000 income. The lower pay of factory workers will shrink labor cost to 10% of cost, compared to 20% to 22% for houses built conventionally by on-site crews.

The house will retail for \$8.65 to \$8.93 a square foot (or \$8.02 to \$8.28 in U. S. dollars), and that price will include a range, refrigerator, dishwasher, washer and dryer, complete furniture package, and wall-to-wall carpeting in the living room Each model contains about 1,000 pounds of aluminum, but aluminum is used only where it is competitive in price and appearance.





ONG-SIDE EXPOSURE of rectangle uses plastic brick to vary exterior in four-bedroom, two-bath model with 1,368 sq. ft. Price: about \$12,160.





SAME ORIENTATION as above uses carport to alter exterior. This is smallest model at 1,104 sq. ft. with three bedrooms, 1½ baths. Price: about \$9,855.

But where? Production has been less of a problem in earlier ventures than sales and location. One ambitious U.S. package house plan foundered because of zoning estrictions (below).

Neely knows this. The ADH house is deigned to meet local and regional building codes (which in Canada follow closely the National Building Code) and has already been accepted by the Central Mortgage & Housing Corp., Canada's FHA.

The ADH plan envisions a network of

local builder-dealers, quite similar to automobile dealers, who would sell the houses for installation on a buyer's lot or on lots they purchase or develop. The builder-dealer's profit would depend upon his skill in foundation and utility work and in arranging financing. ADH, however, expects to help some dealers finance models.

Neely is aiming for initial sales in locations where lot prices can be held to \$1,850. ADH says it can find lots in this range in every Canadian metropolitan area except

Toronto, where lot prices are quite another thing. Toronto Star Writer Jack McArthur points out that lots run from \$9,000 to \$10,000 on the outskirts of Toronto, nearly equal to Alcan's house price. Alcan's cost breakthrough can only succeed, says McArthur, if Alcan "can fight its way through the undergrowth of building bylaws, vested interests, and little thinkers."

Neely and Alcan will try to do just that in the country they know best—Canada—and have no plans.

America's most ambitious package: the 'Toothbrush House' that got scrubbed

"NEVER BEFORE — NEVER AGAIN," read the ad in Chicago newspapers. Its offer:

"COMPLETELY FURNISHED, completely equipped maintenance-free homes. Everything you read on this page included from \$15,995. NO MONEY DOWN to everybody—\$96 a month."

That price included such housing standbys as a two-ton air conditioner, built-in range, refrigerator, washer, and dryer—plus such niceties as china, linens, sheets, blankets, kitchenware, silver, draperies, beds, bed-spreads, chairs, lamps, dinette set for six, lawn sprinkler, power mower, and a garden hose with even the nozzle.

The package was instantly nicknamed the "Toothbrush House" because a family could move in bringing virtually only their toothbrushes. The time was April 1962, and Chicago homeseekers were tuned in on the ad: Lined up for blocks on opening day, would-be visitors jammed traffic in the suburb of Mundelein.

Quinn Hogan, the partner in L&H Builders who put together the package, might just as well have struck oil: 187 families made deposits on opening day, even though only 132 houses had been advertised, and more than 400 families signed up before Hogan closed the waiting list.

But the "never again" part of Hogan's ad was prophetic. Before Hogan could get his houses up as part of a complex surrounding Vernon Hills Country Club, residents of surrounding and wealthier suburbs began pressuring to halt construction. They objected to Hogan's plan to ship in fully built, sectionalized houses, even though prefab

panelized houses had been built in the area before. Eventually a zoning restriction banned the sectionalized house.

During the holdup, Hogan's supplier, American Way Homes of Elkhart, Ind., folded. And finally his financing went down the drain as two savings and loan associations, Service S&L and Hillside S&L, went into receivership.

Last month the Federal Savings & Loan Insurance Co., now liquidating the S&Ls, sought offers for the golf course, swimming pool, and 80 apartments in the area.

Hogan's associates still are not so sure the "Toothbrush House" venture was all in vain. "If anyone tries this type of package deal and has the backing of local politicians and residents, he just can't miss," says one.

Mortgages: Builder discounts take the big turn downward

The signs are now clear. For a homebuilding industry squeezed by tight credit the news is the best since early 1965.

Discounts on insured mortgages have turned dramatically downward. The savings and loan industry has \$1 billion available in brand new money, and the President's state-of-the-union message has spread new hope throughout the industry (p. 5).

There is even a ray of sunlight in the construction loan field. Says Vice President Clarke Stayman of Chicago's big First National Bank: "Some construction loans that were being automatically rejected a month ago are now enjoying a 50-50 chance with us." Some pension funds but not all-were reportedly advancing interim financing to take builders into 1968.

Discounts. Most builders are paying 1½ to 2 points less for the new 6% singlefamily loan than when it began trading

The dip is an even more dramatic 2 to 4½ points in barometer cities of the Southwest. Dallas tract builders paid 9 to 10 points for the FHA 203b mortgage last fall. They now get it for customers at discounts of 4½ to 5½. Houston paid 7 to 9 points in October. Discounts now: 5 to 51/2.

There is a downward flutter in interest charges to homebuyers on conventional loans, but it is restricted to fractions of 1% and to an easing of fees. Mortgage money has loosened up a bit among California's savings and loan associations, but s&Ls generally remained cautious even after President Johnson announced that the Home Loan Bank System was making the extra billion available, net interest reduced from 6% to 534%, for mortgage lending. Although s&Ls gained \$1.6 billion in net savings in December, up from December 1965, the associations were still honoring the Home Loan Bank Board's demand to use all net savings increases to repay money the s&Ls had borrowed to cover withdrawals.

About-face. Secondary market prices for FHA-VA mortgages had risen to 94½, from 93, moving into the new year. They traded up to 95 on exuberance generated by the President's message. Yields to investors, at the near-historic high of 6.54% for the previous three months, dipped to 6.37% after allowance for a 3/8% servicing fee.

There were two reasons for the turnaround:

1. General interest rates have veered sharply downward under pressure from an increasing money supply and the imminence of a recession. The decline has communicated to mortgages with surprising rapidity.

At year's end the demand for credit had eased to a point where the Federal Reserve could revoke its September letter directing commercial banks to restrict lending. Bond prices climbed fast on the Fed's move, and yields on the 41/4s of 1987-92-trend indicator for long-term governments-plummeted to 4.42% after the President's

speech. That was 64 basis points below the bond's 1966 high of 5.06 (Aug. 29) and 3 basis points below its 1966-67 low of 4.45, reached in January 1966. An FHA mortgage yielding 6.37% thus offered a return of 195 basis points more than the 41/4s, the greatest spread since the early 1960s.

2. Banks, as well as S&LS, experienced a pronounced reversal of savings outflows.

Major commercial banks, which had lost \$3 billion in large-scale certificates of deposit since the height of the credit squeeze in August, managed a surprise recovery of \$210 million of the money in late December. And Economist Saul Klaman of the National Association of Savings Banks, who had predicted the mortgage market's recovery when he addressed the Mortgage Bankers Assn. convention in Philadelphia in November, emphasized that savings had improved at New York City's savings banks through November and December and on into January.

Market on the move. The New York banks are big mortgage buyers. Their money has now begun to reappear in the secondary market. The giant Bowery, which had stood fast on bids of 93 into the new year, moved boldly into the market to buy at 94-95 after President Johnson spoke. A major Southern California mortgage banker turned down a bid of 95 for several millions worth of mortgages, a bid made by the Dime Savings Bank of Brooklyn. The mortgage man said he could not find the loans.

'It is going up," said President Arthur Viner of Investors Central Management Corp. of New York City, which buys

mortgages for pension funds. And Cali fornia's State Employees Retirement Sys tem raised its purchase price to 941/2 from 94 (News, Dec.), for the second half of 1967, and mortgage companie still held back.

Shopping time. Housing starts had turned upward in November, and the mortgage changes are a clear sign for builders: It is time to shop for commitments against a revival of spring building Loans are scarce now, and the scarcity accounts in part for lower discounts. Bu once loan volume surges, investors may demand higher yields and discounts may rise again.

Successful builders are already lining up mortgage money.

"The noose is beginning to loosen," said Chairman Eli Broad of Kaufman & Broad "We are being offered commitments [ir California] that require as few as four points." Broad had commitments to take K&B through the first half of 1967.

"We have more money available than we have building projects," he observed.

Philadelphia builders got a \$25-million windfall in conventional mortgage money from First Pennsylvania Banking & Trust President William B. Walker made the money available and said it would finance 25% as many homes as were started in al of 1965 in the bank's four-county area.

President William J. Levitt disclosed that Levitt & Sons had already arranged for 70% of its mortgage commitments fo 1967. He said the company recently turned down mortgage money from savings bank. Reason: high rates.

HOMEBUILDERS' MORTGAGE MARKET QUOTATIONS

Reported to HOUSE & HOME in week ending January 13. IFNMA-Min down!

	Scdry. Mkt.**/ \$20,000 max. on exist., \$25,000 proposed homes	FHA Ser Discount paid MinD	by builder	FHA 207 Apts. Firm	Comm. banks, Ins. Cos.	Savings banks, S&Ls	Rates Savings banks, S&Ls	Construction Loan Rates Interest+fees
City	FHA-VA 6%	6%	Trend	51/4 %	75%	80%	Over 80%	All lenders
Atlanta	6	5-6	Down 3/4	а	63/4 -7	63/4-71/4	63/4-71/4	7-71/4+1-2
Boston	5	3	Steady	a	61/2-7	61/4-7	a	61/2-7+1-11/2
Chicago	51/2	6-7	Steady	а	61/2	63/4	63/4 -7	7+1½-2
Cleveland	51/2	5-7	Steady	а	61/4	61/2-63/4	7+1-2b	63/4-7+1-2
Dallas	6	41/2-51/2	Down 1	а	65/8-63/4	63/4+1	7+2	7+1
Denver	6	5-6	Down ½	а	61/2-63/4	$6\frac{3}{4} - 7$	7-Up	7+1-2
Detroit	51/2	5-6	Down ½	а	61/2-63/4	63/4	6¾ +4b	7+1-2
Honolulu	6	6-7	Down ½	а	7-71/2	71/4-73/4	a	7-8+1-3
Houston	6	5-51/2	Down ½	a	61/2-7	7-71/2	7-7½ b	7+2
Los Angeles	6	5-6	Down 1	а	61/2-7	63/4-71/2	b	61/2-7+11/2-3
Miami	6	6	Steady	a	63/4 -7	61/2-7	a	61/2-7+11/2
MinnSt. Paul	51/2	5		a	63/4 -7	63/4	7	7+1-2
Newark	5	4-6	Down ½	10	6+1	6+2	b	7+2-3
New York	5	21/2-31/2	Down ½	91/2-10	6+2	6+3 and u	p b	6½-7+1
Okla. City	6	5-7	Down 1	a	63/4	61/2-63/4	$6\frac{3}{4} + 1 - 2$	61/2-7+11/2-2
Philadelphia	5	5	Down ½	а	6ь	6	7ь	7+2b
San Fran.	6	6	Down ½	а	63/4-7+1	7-71/4	7½ b	7+1½-3
St. Louis	6	5-7	Steady	a	61/2-63/4	63/4-7	а	61/2-7+1-2
Wash., D.C.	51/2	5–7	Down ½	10-12	6+3-5b	6+3-5b	6+4-6b	61/2-7+2-3

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

Quotations refer to prices in metropolitan areas, discounts may run slightly higher in surrounding towns or rural zones.
 Quotations refer to houses of typical average local quality.
 3% down on first \$15,000; 10% of next \$5,000; 25% of balance.

Footnotes: |a—no activity. b—limited activity. c—Net yield to linexstor of 6% mortgage plus extra fees. w—for comparable VA loans also. x—FNMA pays ½ point more for loans with 10%. y—discounts quoted are net after seller pays ½% marketing fee and ½% adjustment for stock purchase. Seller must pay 1% of mortgage for stock calculated in \$130 units, of which \$30 is contribution to FNMA capital and \$100 is for a share trading at about \$62.

Sources: Atlanta, Robert Tharpe, pres., Tharpe & Brooks Inc.; Boston, Robert Morgan, pres., Boston 5¢ Savings Bank; Chicago, Robert H. Pease, pres., Draper & Kramer Inc., and Robert H. Wilson,

pres., Percy Wilson Mortgage & Finance Corp.; Cleveland, David O'Neill, vice pres., Jay F. Zook, Inc.; Dallas, M. J. Greene, pre Southern Trust & Mortgage Co.; Denver, Clair A. Bacon, pre Mortgage Investments Co.; Detroit, Sherwin Vine, vice pres. Citizens Mortgage Co.; Honolulu, H. Howard Stephenson, vice pres. Bank of Hawaii; Houston, Everett Mattson, vice pres., T. J. Bett Co.; Los Angeles, Christian M. Gebhardt, vice pres., Collwell C Miami, Lon Worth Crow Jr., pres., Lon Worth Crow Co.; Minne polis-St. Paul, Walter C. Nelson, pres., Eberhardt Co.; Newar William W. Curran, vice pres., Franklin Capital Corp.; New Yor John Halperin, J. Halperin & Co.; Oklahoma City, B. B. Bass, pre American Mortgage & Investment Co.; Philadelphia, Robert Irving, vice pres., First Pennsylvania Banking & Trust Co.; Strancisco, John Jensen, vice pres., Mercantile Mortgage Co.; S. Francisco, John Jensen, vice pres., Bankers Mortgage Co. of Carnia; Washington, James C. Latta, sr. vice pres., Associal Mortgage Cos. Inc. Mortgage Cos. Inc. NEWS continued on p. 1



Yes, to the builder who is constantly looking for new merchandising features, WILLIAMSON's new "Five-In-One" Yearound Indoor Climate Control Console should prove to be the hottest home feature for 1967.

Smartly styled and handsomely streamlined, the new "Five-In-One" is a furnace, humidifier, cooling/dehumidification unit and electronic air cleaner completely enclosed in a single casing. Best of all, the new "Five-In-One" costs less and takes less space than a combination of comparable capacity elements purchased as separate units and assembled into a total comfort package.

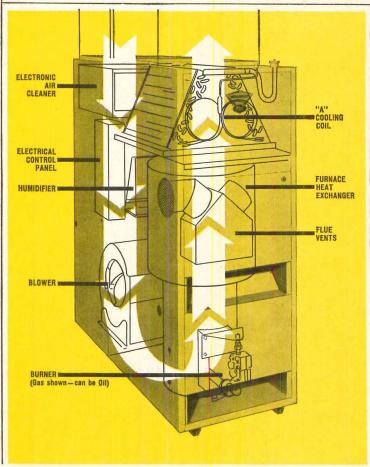
The WILLIAMSON "Five-In-One" is available for use with natural gas, L.P. gas or fuel oil. Heating capacities range from 80,000 BTU/H to 150,000 BTU/H. Coolling capacities available from 25,000 BTU/H to 57,000 BTU/H.

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Builder in a bind: Lou Lesser needs one more hat trick

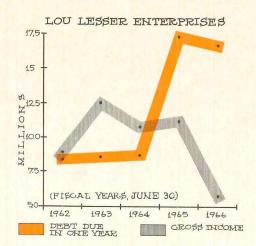
Twice in 1966 the building industry's financial magician managed to pull out the right rabbit. But this year the old act may come harder; new audiences are composed increasingly of creditors waiting to be paid.

Lou Lesser Enterprises Inc. of Beverly Hills, Calif., closed a fiscal year on June 30, 1965, with \$17.4 million in debt due within a year. The figure had doubled in 12 months, but Lesser still counted gross income of \$11 million in 1965 and so the burden was bearable—if he could get help in carrying the load. He went into fiscal 1966 looking hard for a merger—and out came the two rabbits.

First to appear was Santa Anita Consolidated (News, Dec. '65). Lesser granted the California racetrack owner an option to exchange stock worth \$14.8 million for all shares of Lesser, whose residential projects included the prestigious Conejo Valley and Thousand Oaks near Los Angeles.

By spring that deal had collapsed, and up popped City Investing Co. of New York City. A developer best known for its Sterling Forest industrial-residential community near Tuxedo, N.Y., it contracted to acquire Lesser (News, June).

The big writedown. The next news on Lesser broke in December, when disspirited stockholders got figures for the year ending June 30, 1966. Tight money had set in, and Lesser had written down the value of his properties and enterprises by



\$4.6 million. He had to report a loss of \$2.9 million for the year compared to a gain of \$1.5 million in 1965.

His one-year debt was still an imposing \$16.7 million, and now a further difficulty had arisen. Home-sales income had plummeted from \$4.6 million in 1965 to \$145,-000 in 1966. His gross, comfortably above \$10 million in the three previous years, sank almost 50% to \$5.7 million. So the company was carrying one-year debt three times its gross income (see chart).

Lesser had to tell stockholders the City Investing merger contract had lapsed.

Always a debtor. The balance sheet drew attention to the long-term debt of

Lesser, a heavily leveraged company ever since the former ladies-wear salesman organized it in April, 1960. Total debt climbed steadily for each of the following years except 1965. It leaped again in 1966, to \$72.8 million, and the debt-equity ratio jumped to 11-to-1.

Lesser has been in this spot before. In 1962 his debt ratio reached 17-to-1, but a year later he had it down to 9-to-1. In an interview with a House & Home editor at that time, he spoke of organizing a General Motors of housing. He was that confident of his company's bright future.

And Lesser insists he will come through again. He has told his stockholders that negotiations are continuing with City Investing, and the New York company's President George T. Scharffenberger confirms this. "We're simply waiting for him to arrange financing to our satisfaction," he says. "He appears to be well on his way. We're still attracted to his properties."

The last rabbit? Lesser says he has already arranged most of the financing with United California Bank of Los Angeles and the American National Insurance Co. of Galveston, Tex. Magician that he is, he made it all look easy when he stepped onstage at the stockholders meeting.

Just a little more financing . . . another merger contract . . . one more rabbit . . .

The audience, restless now, is waiting. NEWS continued on p. 16

Big builders' issues lead new housing stock advance

The common stocks of three major building companies have posted impressive gains to lead House & Home's index of 72 housing issues in its third advance in as many months.

Jim Walter Corp. of Tampa, Fla., the \$500-million builder of partially finished houses, moved up 3% to 20%. Levitt & Sons of Lake Success, N. Y., established a new high of 161/4 before yielding 1/4 point. At 16, it was 134 above its previous month's close. Kaufman & Broad of Los Angeles rose 1½, to 145/8, on excellent annual earnings reports (see p. 18).

The savings and loan list of 22 issues, most of them representing companies in Southern California, was up 13%. First Charter financial, the giant Los Angeles holding company, gained 41/4, to 191/4.

In the mortgage banking section, Mortgage Guaranty Insurance, the Milwaukeebased insurer of conventional loans, soared 7½ points to 24%. Its 1966 net is understood to have risen to \$2.20 a share, from \$1.70 a year earlier. The averages:

	Nov. 4	Dec. 5	Jan.
Building	4.56	4.95	5.59
Prefabrication	1.63	1.62	1.80
S&Ls	5.71	7.44	8.46
Mortgage banking	8.76	9.35	10.07
Land development	5.04	5.28	5.40
Average	5.29	6.02	6.64

HOUSING'S	STOCK	PRICES
BUILDING COMPANY	Jan. 9 Bid/ Close	Chg. Prev. Mon.
Adler-Built Inc Capital Bld. Ind Cons Bldg. (Can.). Dev. Corp. Amer Edwards Inds First Hartford Rity Frouge General Bldrs Kaufman & Bd Levittb Lou Lesser Ent Lusk Nationwide Homes Pres. Real. A Sproul Homes. U.S. Home & Dev Jim Walter Del. E. Webb Ne Capital Bldrs Capital Bldrs Lusk Nationwide Homes Pres. Real. A Del. E. Webb Lisk Lis	35¢ 1.05 ½ 1 95¢ 6½ 3 11¼ 144 16 234 22½ 34 20½ 20½ 20½	- 056 - 156 - 156
PREFABRICATION Admiral Homes Albee Homes • Continental Homes Inland Homes Modern Homes Natl. Homes A.* • Scholz Homes Steel Crest Homes Swift Industries	3/8 5/8 23/8 31/8 2 21/4 21/4	-1/16 + ½ + ½ + ½ + ½ + ¼ + ¼ + ¼
S&Ls American Fin. Calif. Fin. Calif. Fin. Calif. Fin. Equitable S&L Far West Fin. Calif. Cal	4 6 15½ 75% 1634 1914 4½ 634 35% 3 15½ 61% 61% 53%	+ 34 + 36 + 28 + 28 + 36 + 216 + 444 - 32 + 44 + 36 + 216 + 226 + 226 + 32 + 34 + 34 + 36

COMPANY Trans-Cst. Inv Trans World. Fin. e. Union Fin. United Fin. Cal. e. Wesco Fin. e.	7 45/8 8	Chg. Prev. Mon. + 1/4 + 1/8 + 1/8 + 3
MORTGAGE BANKIN Advance Amer. Mort. Ins. Associated Mtg. Charter Colwell Cont. Mtg. Inv. Cont. Mtg. Inv. Kissell Mtg. Lomas & Net. Fin.P. MGICb. MGICb. Amorga Assoc. Palomar Mtg. Southeast Mtg. Inv. United Imp. & Inv.b.	534 734 514 134 134 174 2758 378 6914 1334 214 2436 316 178 476	+ 2½ + 2½ + ½ + ½ - ½ + 5½ + 6½ + 6½ + 1 - ½ + 7½ + 7½ + 7½ + 1½ + 7½
LAND DEVELOPMEN All-State Prop. • American Land. Am. Rity. & Pet. Arvida. Atlantic Imp. Canaveral Intl. Christiana 0. Coral Ridge Prop. Cousins Props. Crawford. Deltona Corp. • Disc Inc. Fla. Palm-Aire. Forest City Ent. Garden Land Gen. Develb	11¢ 1½ 33/8 55/8 55/8 171/4 45/8 21/8 41/2 11/8 101/4 1 15/8 35/8	- 4¢ + 1/8 + 1/4 8 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2

COMPANY Gulf Americanb Holly Corp. b Horizon Land Laguna Nig Lake Arrowhead Major Rity McCulloch Oilb So. Rity. & Util. b Sunasco c DIVERSIFIED COMPAN	2.40 65/8 10¢ 83/4 13/4 d	Chg. Prev. Mon. + 5/8 + 15/¢ + 1/8 + 3/¢ + 1/2
• City Invest. •	45½ 8¾	+ 21/4 + 1 + 21/8
MOBILE HOMES Con Chem Co Divco-Waynec Guerdonb Redman Indusb Skylineb	101/8 a 271/2 a 5a 43/4 a 13a	

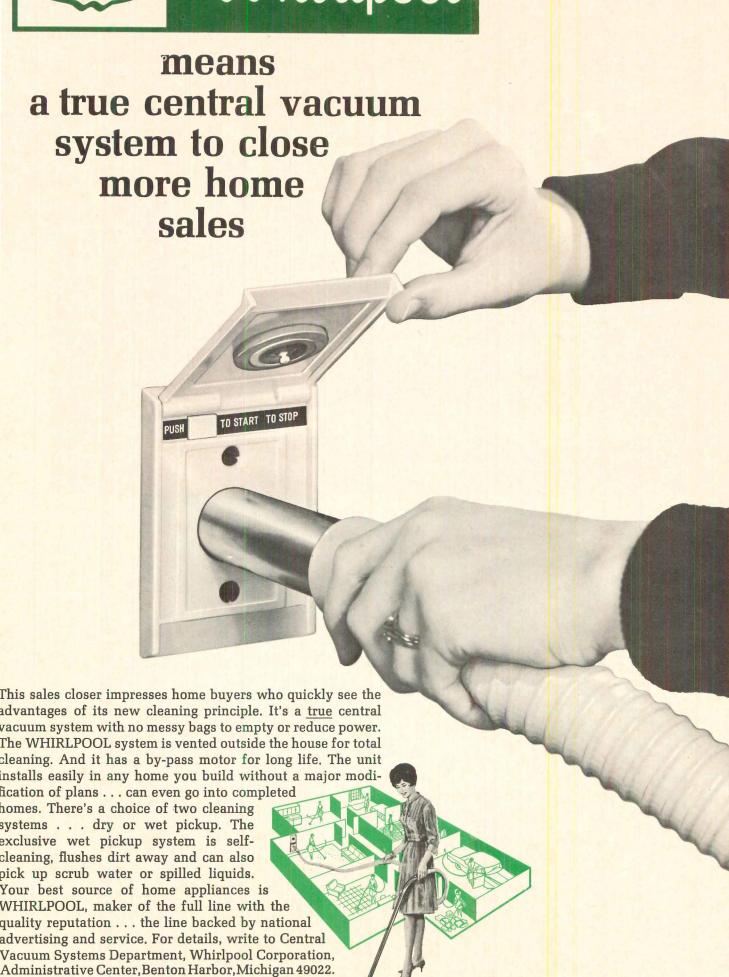
a—stock newly added to table. b—closing price ASE. c—closing price NYSE. d—not traded on date quoted. g—closing price MSE. h—closing price PCSE. k—not available. p—formerly Wallace Investments. q—formerly San Diego Imperial Corp. *—not included in averages. x—adjusted for 4-for-3 split. y—tender offer.

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

SHORT-TERM BUSINESS LOAN RATES

Percent interest and (net change) in yea	ır	
LOAN SIZE New York City	7 other Northern & Eastern cities	11 Southern & Western cities
\$1-10 6.60 (+ .95) \$10-100 6.57 (+1.20) \$100-200 6.39 (+1.26) \$200 and over . 6.05 (+1.41) Source: Fed. Reserve Board, September 1	6.62 (+ .74) 6.75 (+1.13) 6.60 (+1.29) 6.31 (+1.44)	6.84 (+ .82) 6.65 (+ .92) 6.51 (+1.06) 6.26 (+1.23)



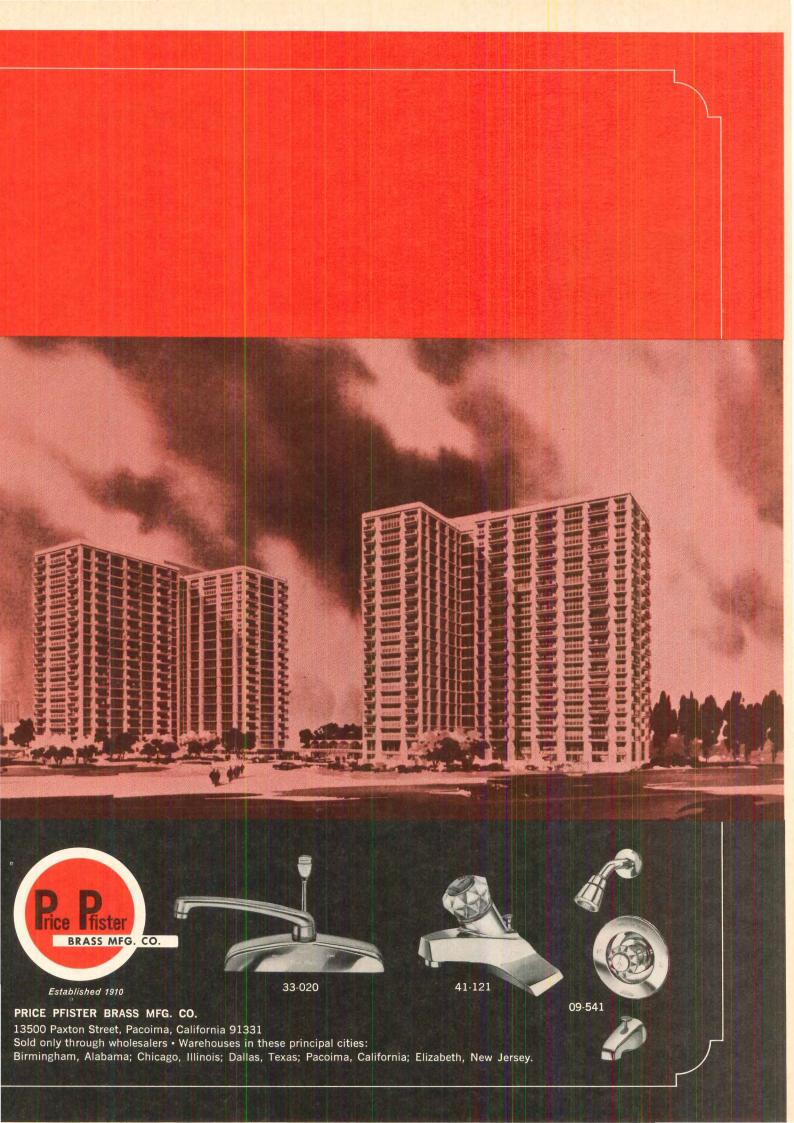


Continuity (July) chooses FLOW-MATIC by Price Pfister exclusively for its new high-rise apartments

Century City is the world's largest privately financed urban development, a \$500 million dollar "city within a city." Its magnificent office buildings, fabled shops and restaurants, and fabulous new hotel and night clubs are a constant delight and convenience to the citizens of Beverly Hills and Los Angeles.

Now, these individual achievements are joined by Century Park East, incredible twin apartment towers featuring a swimming pool, tennis court, putting green, and most fittingly, Flow-Matic single-handle fittings by Price Pfister in every bath and kitchen of every elegant apartment home.

Flow-Matic mixing valves and lavatory fittings feature sculptured lucite handles while the clean, tapered lines lend unaccustomed grace and ease to the kitchen area. Price Pfister's exclusive ceramic cartridge assures maintenance-free operation for years to come.



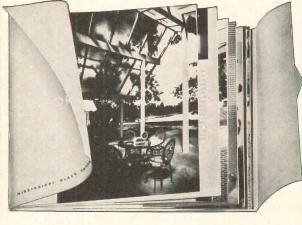
William Brockway residence, Los Angeles, Calif. Burton Schutt, architect. Reprint, Sunset Magazine. H. H. Baskerville, Jr., photographer.

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FIGURED & WIRED GLASS

How oldsters lost \$7 million in Florida mortgage swindle

A federal jury in Miami has convicted seven officials of the American Bonder Mortgage Co. of defrauding 2,000 investors out of \$7 to \$8 million.

Most investors were retired persons wh could not resist offers of an "8% guaranteed" return on savings invested in first of second mortgages on owner-occupie homes.

But, the court was told, many of th mortgages did not exist. Others were thir or fourth mortgages on scrubland.

Convicted were Mark Kroll, William Cahn, William Criswell, Fred Adler, Joh S. Hunt, Jr., Jack Chernau, and Robert C Brown, all Miami residents during th 1957-62 operation. All expected to appea

Vision. Witnesses testified that Kro seized control of American Bonded tw months after it opened offices in Miami i 1957. Testimony named Kroll and Cah as masterminds of an advertising campaig that promised the 8%.

American Bonded paid interest in 195 and 1959, but it was using new investment to pay interest to earlier investors.

Reality. Florida's realty market decline in 1960, preventing the company from recouping through inflated land values. The company was forced into involuntary bank ruptcy in January, 1962, and a federal jurindicted the seven last February.

Testimony disclosed that \$4 million of American Bonded's funds went to "deve op" Apollo Beach, a 5,000-acre waterfrom subdivision 17 miles south of Tampa. The area was a ghost town for three years after American Bonded's collapse, but an earlied lender, Francis Corr, regained control in 1965. A \$2.5-million building program under way.

Eichler Homes petitions to operate in bankruptcy

The San Francisco house and apartment builder has asked a federal court to let the company operate as a debtor under Chapter 11 of the federal bankruptcy code

Eichler Homes acted after three creditor sued, charging that Eichler "cannot of will not pay its debts." The court is holding the suits in abeyance pending preparation of a reorganization plan. Eichler sai it owed \$27 million secured and \$2 million unsecured but said it could pay the unsecured debt and show a net worth of \$ million if not forced into involuntar liquidation.

Founder Joseph L. Eichler sold the company to Los Angeles adman Charled Parr last spring (News, June '66). Eichled was forced to yield control (News, Now '66), and he left to form a new home building concern, J. L. Eichler Associated (News, Jan.). Son Edward (Ned) Eichled who left the company in 1964 to write sharply critical report on new towns for the Ford Foundation, joined the new town of Reston, Va., last month as its third vice president for home sales in a year.

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WINNER of competition for atom smasher site is straggling realty development of Weston, Ill.

Will U. S. give prize facilities to new towns? Atom-smasher choice hints at bail-out instead

For over a year, new-town developers have carefully nurtured the hope that Uncle Sam wants new towns to succeed so badly he will bend over backwards to locate federal installations in select new towns.

Last month, however, the theory seemed a tenuous one indeed. The hottest competition for a federal installation in recent years ended with the hamlet of Weston, Ill., being awarded a \$375-million proton accelerator that will carry with it 2,400 jobs and a \$60 million budget by 1975.

Weston has gotten on some national listings of new towns. But it is less than the best example of the real-estate developer's art, and may indeed rank closer to the other end of the spectrum.

The town's brief but checkered past began in 1961, when Westfield Development Homes began building the first group of a planned 400 cookie-cutter pastel houses, each with three bedrooms, and renting for about \$85 a month. But Westfield went broke after building only 102 houses, and a dreary period of frustrations and setbacks set in for the 102 families.

First, Westfield's financial backers, Tinley Park s&L and Beverly s&L, folded because two of their officers had manipulated funds. The Federal Savings & Loan Insurance Corp. took over Weston's houses.

Then a Chicago developer, William Riley Management Co., took an option on the houses and surrounding ground and an nounced it would build a \$550-million new town for 50,000 persons. Westonite waited vainly for the groundbreaking.

The Federal Savings & Loan Insurance Corp. has been gradually selling the frame houses, many now in need of paint, to occupants at about \$13,500. Last month FSLIC still owned about 20 houses and 4 vacant lots in Weston.

So why did the Atomic Energy Commission pick Weston, when over 200 othe communities sought the atom smasher so vigorously? The AEC cited the availability of a 6,000-acre site without neighborhood opposition, ample water and power, proximity to both water and air transportation and nearness to the AEC's Argonne National Laboratory and to universities in Chicago

The AEC made no comment on why fivother finalists, including two in the new town category, had been eliminated. But it did note that Weston had no history of earthquakes, a factor that apparently weighed heavily against a site near Sacramento and the new town of El Dorade Hills West. The selectors passed over lanear the Brookhaven National Laborator on Long Island, where the now-bankrup Webb & Knapp had planned a new town on 1,918 acres in 1962. The three other finalists, Denver, Madison, Wis., and An Arbor, Mich., all are mature cities.

Buyers offered \$1,000 profit in LA market

"There is a crisis of confidence. The buyer has been psychologically brainwashed by stories of tight money."

So saying, President Eli Broad of Kaufman & Broad, the Los Angeles-based homebuilding concern, has offered to repurchase houses from new buyers in seven of its southern California tracts for \$1,000 above the original purchase price. Qualifying buyers would have to offer the house in good condition and pay title transfer costs of perhaps \$200 to \$300 from the \$1,000 profit. K&B would sidestep discounts by assuming the loan.

Broad stressed that the offer was not an effort to move unsold inventory, although he told newsmen that completed and inprocess houses amounted to 10% of his

\$13.5 million southern California sales las year. He expects K&B to have to buy bac only a relatively few houses. First results a big jump in traffic and sales.

For its fiscal year ending Nov. 30, K& reported sales of \$43 million and profit of \$1.5 million, up 58% and 125% respectively.

K&B's sales offer is the latest in a serie of sales primers in the depressed Los Angeles market. Last fall, George M. Holstein & Sons offered to repurchase its houses at the original price, and Deane Bros., subsidiary of Occidental Petroleum, purp \$5 million to pay mortgage discount on the used houses its buyers wanted to vacate. Both brought moderate response

NEWS continued on p. 2

Air King makes 182 different range hoods, all beautiful!

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AirLKing









above: Moderate-priced 2-speed Cabinet-Sav'R

left: Hi-Flow ductless model with woodgrain vinyl finish

below: Low cost vertical discharge model





Sell the fashionable homemaker

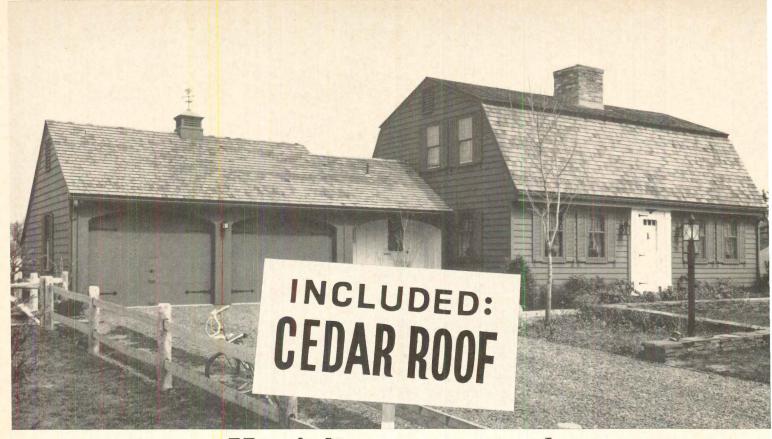


with fashionable Moe Light

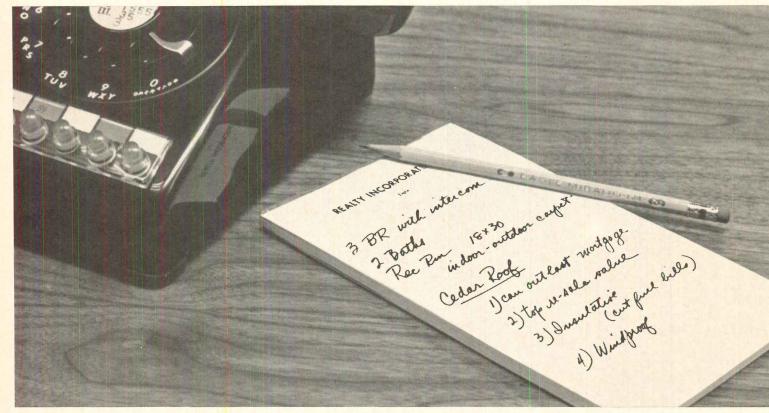
e's as style-conscious of decor as she is of clothing. She'll decide either to take a second look at your model homes. So give her mething special to remember: a Moe Light six-candle chandelier authentic hand-hammered wrought iron.

For more ideas on how to sell the fashionable homemaker, write Residential Lighting Division, Thomas Industries Inc., 207 East padway. Louisville, Kentucky 40202.





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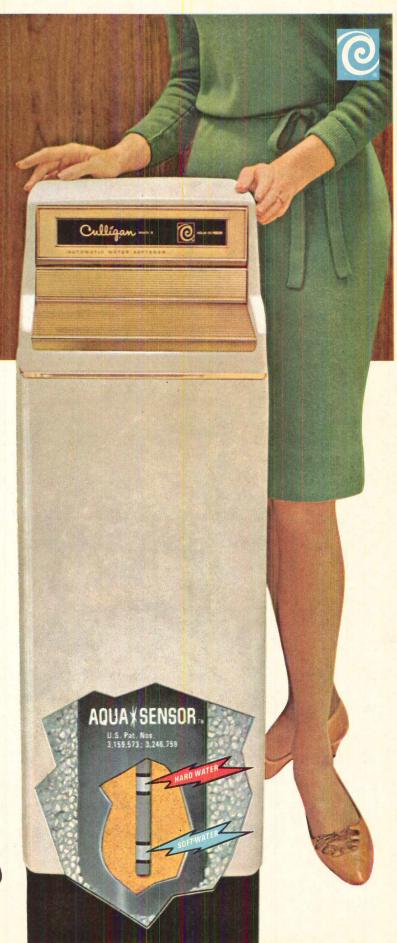
Efficient, Economical. If you are away for a day, or on vacation for a month—no problem. Aqua-Sensor does not recharge. If the hardness of your water supply varies—same answer. Aqua-Sensor recharges only when needed. Saves salt. saves water.

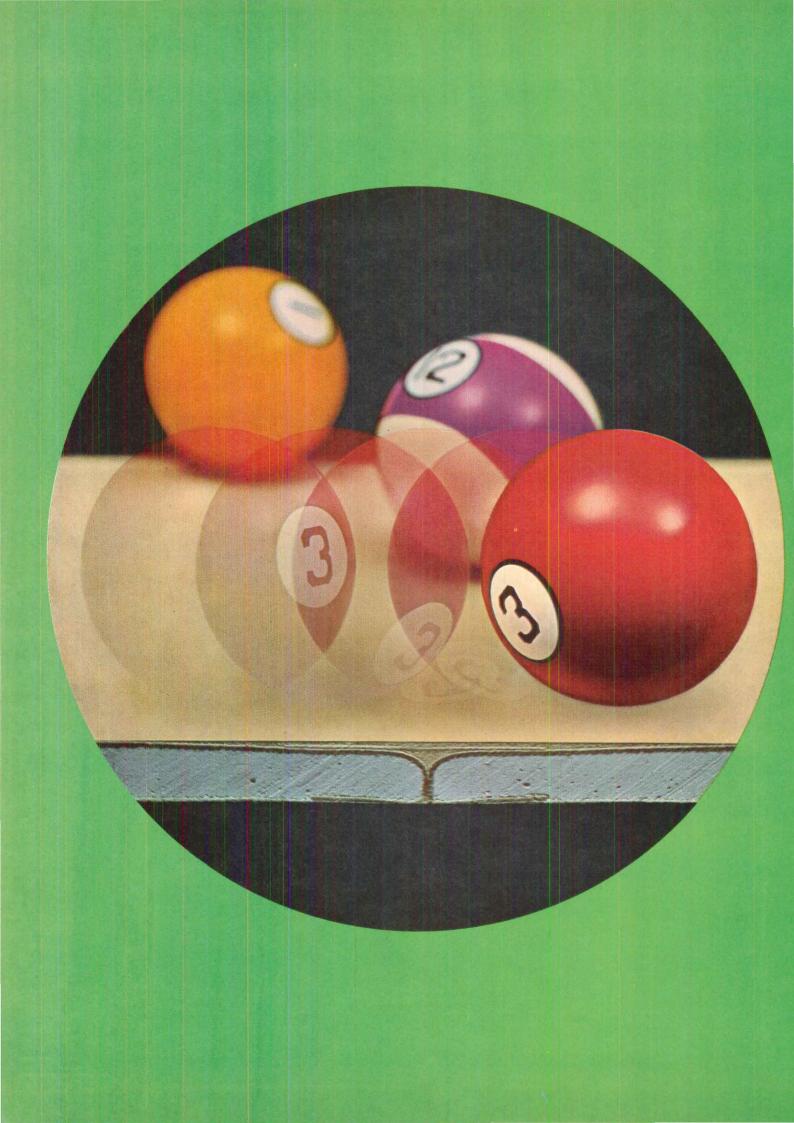
How Aqua-Sensor Works. There are two sensors located at the bottom of the ion-exchange resin bed. When hard water reaches the upper sensor, the lower sensor is still immersed in softened water. The sensors electronically detect the difference and signal the solid-state controller. At the proper time, the unit automatically recharges.

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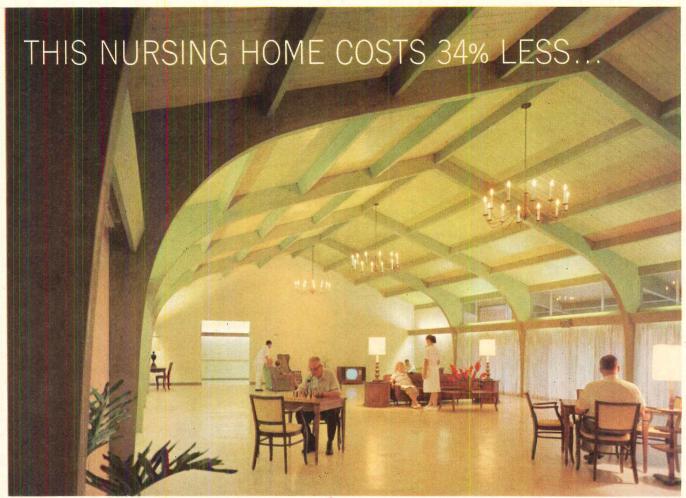
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UNITED STATES GYPSUM



Architects, Seiferth and Gibert, A.I.A

added safety and comfort from Southern Pine

Beautiful Miramar Village—a facility for extended nursing and convalescent care—is located on the Gulf Coast shores. The building is as attractive and relaxing as the surroundings.

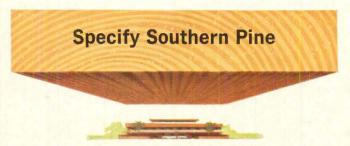
Southern Pine was chosen to give the home-like atmosphere of natural wood. Sweeping laminated arches and roof decking of Southern Pine create a warm, friendly feeling. The facility holds the highest classification of nursing homes awarded by the Mississippi State Board of Hospitals.

Pre-shrunk Southern Pine is utilized for partition, wall and roof framing throughout the expansive complex. Cost—exclusive of land, fees, furnishings and site improvement—is \$13.94 per

square foot and \$5,878 per bed—34% less than \$8,960 per bed average for 25 other nursing homes built in 1965, as reported by the U. S. Public Health Service.

The Southern Pine framework, approved by FHA, Federal Medicare authorities and the State Board of Hospitals, has structural safety—important in this area where hurricanes can be so destructive. Use of a sprinkler system brought a 58% reduction in fire insurance rates.

MORE INFORMATION:—A special folder giving complete details is available. Write: Southern Pine Association, P. O. Box 52468, New Orleans, Louisiana, 70150



As produced by member mills of the Southern Pine Association

Zoning: a king-size battle over king-size cluster plans

Cluster zoning has become such an explove topic in Los Angeles that distressed ity fathers are revising their zoning mahinery to cope with full-blown and inipient crises.

Their chief corrective is an ordinance hich—if enacted—would encourage cluser development while giving elected offiials increased control over every proposed

luster development.

Thus do the officials hope to moderate ne titanic battle now raging over the uture of the Santa Monica Mountains, hose 92 square miles form the last virtully undeveloped terrain in the city.

On one side of the fight are the city's lanners and developers, who see clustering s the best means of developing the mounains without destroying the rustic environnent. On the other are powerful groups f mountain homeowners who have fought he incursion of higher densities.

The battle is so pitched that it is beoming something of a cause macabre in lanning circles. The outcome may well et a pattern for the fate of the cluster

oncept in other cities.

Who's got the power? Up to now, lected officials—specifically the mayor ave barely been able to get a word in dgewise concerning cluster zoning. Through the vagaries of Los Angeles zonng laws, a cluster plan is now approved s a zoning variance. And these are the pailiwick of the planning commission, whose word is final except when appeal is nade to the city council. In no case, howver, are the decisions subject to the nayor's approval.

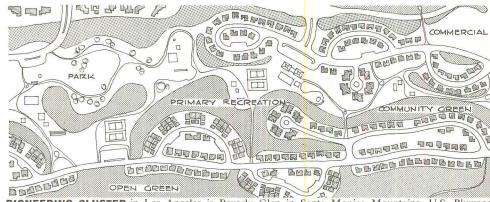
Mayor Samuel Yorty has long been unappy about being the odd man out and bout the council's limited role. When the planning commission authorized cluster projects for the hills, and when it flexibly nterpreted certain regulations for cluster levelopment, the mountain dwellers arose n organized opposition. Whether Yorty personally favored the actions or not, he could not even review them in the public nterest; but he did not escape the burden of the public's wrath.

A proposed Residential Planned Development (RPD) ordinance would cure that lefect for clusters by converting the current administrative method of approvng cluster zoning into a legislative procedure. It would give the council the ight of automatic review in every planning commission decision, while the major would acquire the final right of veto.

Although the ordinance still faces a showdown vote in the council before becoming law, insiders say it has a good

chance of passage.

Reception in the hills. While it apolies to the entire city, the RPD measure ncludes several provisions specifically for cluster projects in the mountains. One forbids developments smaller than 100 acres (elsewhere in Los Angeles they may be as small as five acres). Another lets the



PIONEERING CLUSTER in Los Angeles is Beverly Glen in Santa Monica Mountains. U.S. Plywood land planners will combine four types of open area from open hillside to recreation complex.

developer exceed densities recommended in the local master plan by 10% as a bonus for good design. And any of the ordinance's provisions can be modified or adapted in specific instances to cope with problems posed by the terrain.

But although the ordinance intends to make the mayor and council more responsive to the wishes of the people, the mountain dwellers don't see it that way. To them, it is a betrayal of the 1964 master plan, which also encouraged cluster developments and to which they gave in only grudgingly and after a long fight. They're particularly bitter about the 10% density bonus and the allowable modifying of provisions as needed. What sort of a plan is it, they ask, whose very essence seems formlessness?

Their protests haven't been entirely in vain. Largely as a concession to them, the RPD ordinance was revised several times and one new provision calls for creating a distinct-zoning enforcement unit.

Battle of Beverly Glen. The entire cluster fluster began with skirmishes some two years ago. But it took the first major project approved for the mountains to form the battle lines in earnest. Last July, without waiting for the RPD bill, the planning commission approved U.S. Plywood's \$50-million, 307-acre Glenwood development in Beverly Glen (site plan above).

Some 500 homeowners closed ranks and fought the project through a series of emotional meetings, then appealed to the city council. They insisted that cluster densities violated traditional zoning and that the population influx would saturate the canyon's two-lane road, requiring a \$15million widening job and the destruction of half the homes in the canyon. U.S. Plywood didn't take kindly to the accusations and slapped the homeowners with a \$2-million damage suit, charging malicious interference.

The council finally backed the planning commission's recommendations, but only by an 8-to-7 vote. U.S. Plywood then dropped its lawsuit as a peace-making gesture. But the homeowners voted to carry their fight to the courts. Possible grounds: a challenge to the constitutionality of the

master plan and zoning-variance procedures "because they are vague."

U.S. Plywood faces more hurdles before turning any dirt. Even it it avoids court fights, further homeowner appeals on the tract map are likely.

A planning abortion? Even as one battalion of homeowners dug in against Glenwood, mountain dwellers in another section opened a second front against another giant cluster project. This one is \$250-million, 2,107-acre Sunset Mountain Park, sponsored by Sunset International Petroleum Corp.

The homeowners swallowed their ire about the development so long as it conformed to the master plan. But when Sunset asked the planning commission for certain waivers (the project's terrain prevented the precise allocation of densities in the plan), the homeowners erupted.

Again, the protests were in vain. Both the planning commission and the council approved Sunset's proposals on grounds that, while densities would be increased in some areas, average density was unchanged.

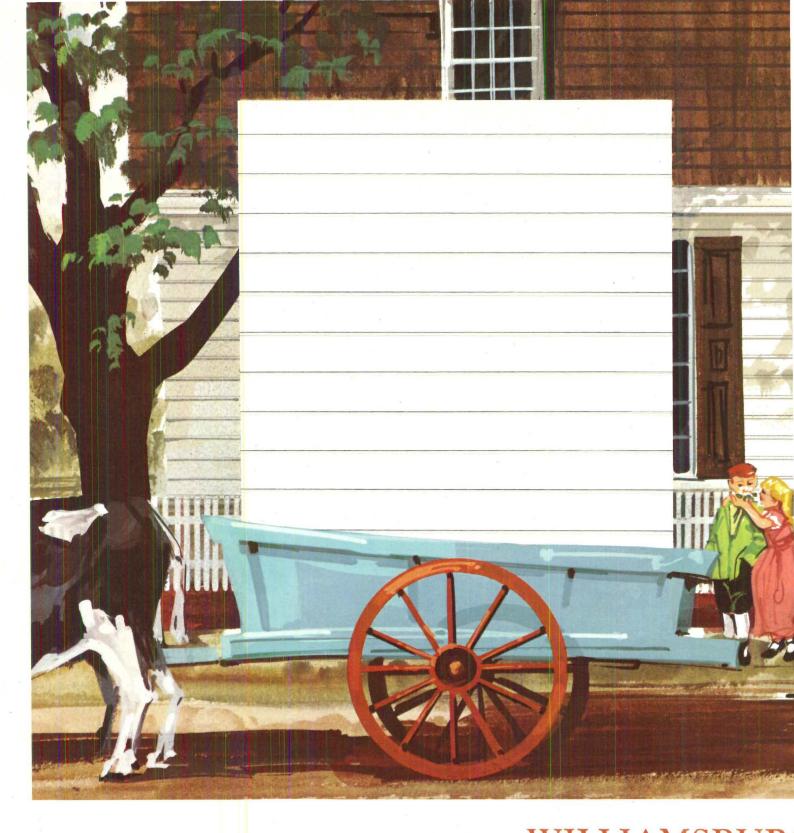
"It's an abortion of the master plan," seethed a homeowners' spokesman. Another militant, UCLA Professor Erik Wahlgren, observed acidly: "The planning department is vastly proud of its 'creative dialogue' with multimillionaire corporations. But never do the planners boast of dialogues with the public.

Replied Frank Lombardi, assistant director of the planning commission: "It was our intention that the master plan would have to be refined and amended. This is the first case, and there will probably be others."

Those words were not vain prophecy. Still another behemoth cluster project is in the works: The Lantain Park Corp., which bought 10,000 acres, then sold 3,300 of them to Sunset Petroleum, now plans to develop its remaining 6,700 acres.

Just how the passage of the RPD ordinance would affect the future of such projects is problematical except for one certainty: Mayor Yorty would then hold far. more power over the outcome.

> —Barbara Lamb NEWS continued on p. 30

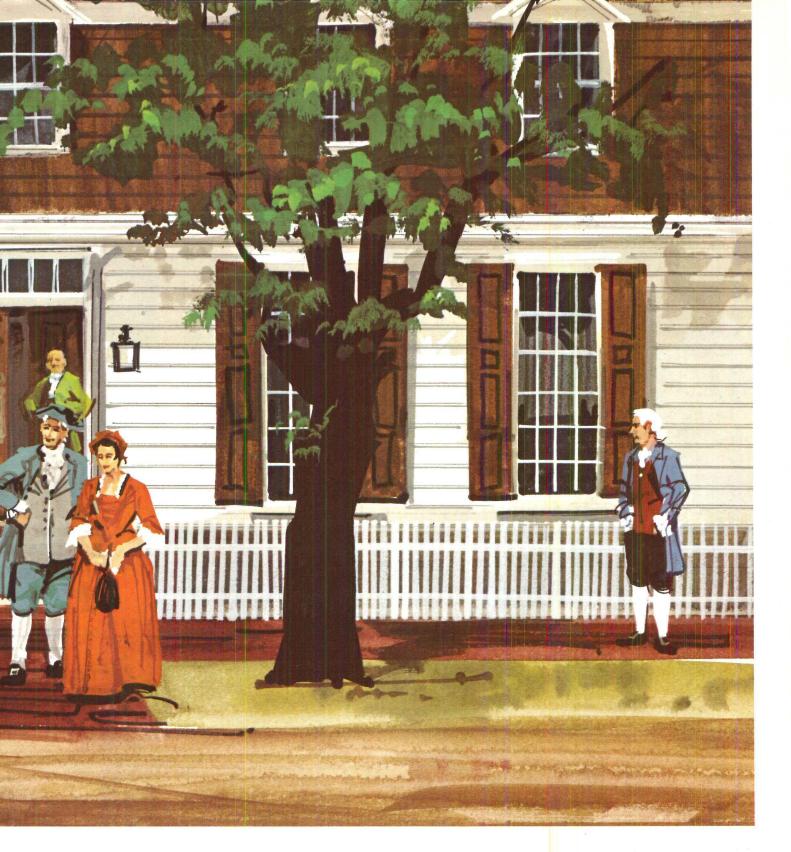


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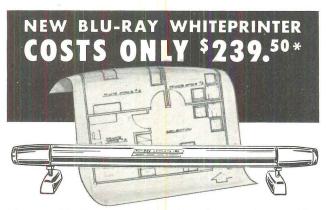
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Should low-paid Negroes be helped to buy \$4,000 houses? Yes—maybe

Since Negro riots ripped central Philadelphia in 1964, thousands of used row houses have been dumped on the city's housing market, depressing the asking prices of big houses in move-in condition into the \$2,000 to \$6,000 range. A five-bedroom house in "immaculate condition" sold for \$3,700 recently and two-bedroom houses are quoted as low as \$2,200. "The market remains de-

"The market remains depressed; it is a buyer's market," Housing Consultant **Charles Abrams** told Philadelphia housing officials last month.

Yet, surprisingly, the officials were hardly overjoyed with Abrams' plea that the city help low-income Negro families buy these distressed properties. Philadelphia's fire-sale prices are probably unique, but the city has been something of a bellwether in housing experiments. So the city fathers' reaction may go a long way toward settling the question of subsidized home ownership at the national level.

Abrams, now urban planning chairman at Columbia University, argued that Negro families are unable to snap up the rowhouse bargains because mortgage lenders have virtually abandoned many central neighborhoods. The lenders shun the areas because the small mortgages mean higher unit servicing costs and because they fear they might be criticized as slumlords by publicity-seeking officials. The publicity drives "have done little to draw back the capital needed to improve these slum sections . . . [and] have driven out some of the more responsible investors," observes Abrams.

In this vacuum, the only private buyers are speculators who buy houses with their own funds for as little as \$1,000, make any needed improvements, and then rent or sell the units on land contracts. But even the ranks of these specialists are shrinking because of public recriminations against slumlords.

The only other buyers are two public and semi-public agencies involved in a "used house" program in Philadelphia—and here Abrams disagrees with the Philadelphia establishment.

Abrams bears down hardest on the Philadelphia Housing Authority, which is buying over 550 rehabilitated row houses from private builders who buy on the open market and renovate them to public housing standards (NEWS, Dec. '65, March '66).

"The taxpayers are grossly overpaying for what they are getting," he charges, because the public housing authority is paying an average of \$12,300 a house while "good and recently built housing in good sections of the



CONSULTANT ABRAMSCapitalize on a buyers' market

city and its suburbs is being of fered at prices well below the figure." While the authority has been paying a premium in a effort to boost neighborhood property values, Abrams blammost of the high costs on publicular housing standards that essentially require all-new equipment, ne plastering, and new roofing in a rehabilitated houses.

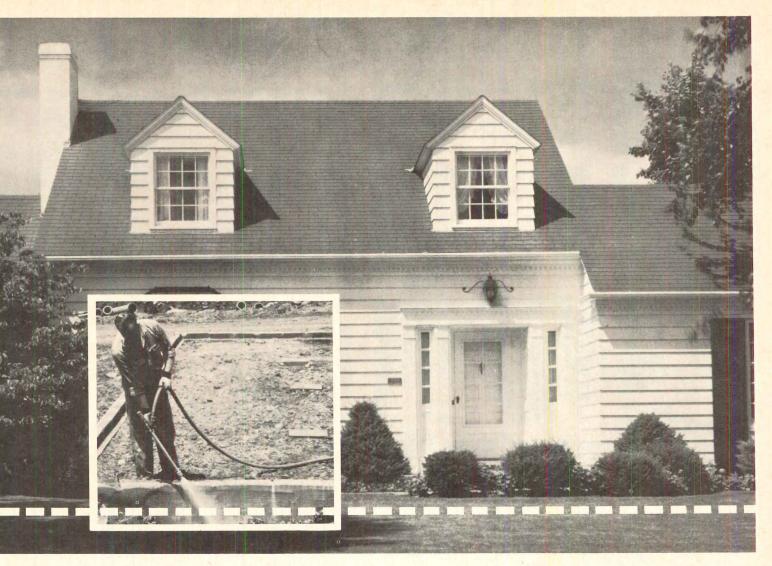
A second agency, the nonprof Phildelphia Housing Developmen Corp., is trying to renovate an resell about 100 row house donated to it. But, Abrams note its standards follow those of the public housing agency and suffer from the same cost inflation.

Hence he proposes an information far-reaching plan to make mortgage financing available to families who can buy the ditressed row houses and make the state of th

"At stake is the poor family chance to acquire independent of officialdom and the condition officialdom imposes for the tenuous tenure it offers" sai Abrams. "There is a signal of portunity to give many low-in come Negro families hope, inde pendence from landlordism, an a home they can call their own That opportunity would be los if these houses were consume by a used-house program that made public housing tenants of many Negroes who could ow the very houses in which it wa proposed they become tenants.

Abrams noted that his hom ownership plea had met some dis agreement from the city's renewal planning staff. But William I Rafsky, chairman of the cit committee which commissione Abrams' work, saw hope for "wide community response" to the plan.

NEWS continued on p. 3



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Gypsum-maker Morgan plans push of urban rehab into new cities

U.S. Gypsum Co.'s drive to spur urban rehabilitation is going so well that its aggressive president, **Graham Morgan**, is looking for a half-dozen other projects to conquer.

Late in 1965, USG bought six tenements in New York City's Harlem and, at a cost of \$1.25 million, tested new techniques—better ways of leveling floors and installing heating (H&H, Aug. '66)—to renovate them.

This pioneering effort stirred so much national interest in large-scale rehabilitation that last month Housing Secretary Robert C. Weaver named Morgan an "Urban Pioneer," only the second man* to receive this honor from the new Housing Dept.

Morgan showed up at the formal presentation last month with a sheaf of new plans. Uso, he revealed, had bought six more New York tenements and six rundown apartment buildings in Hough, the Cleveland slum racked by Negro rioting last summer. And the company is looking for renewable buildings in Chicago, Philadelphia, Atlanta, San Francisco, Oakland,

* First winner: Robert E. Simon, builder of the new town of Reston northwest of Washington.



MORGAN (r) AND WEAVER
Pointing the way for producers

and Los Angeles' Watts section another 1965 riot site.

Use decided to continue renovation because it found the cos (\$9,125 per unit including pur chase price but excluding financing charges) significantly lowe than rehabilitation done by public agencies.

The entry of UsG into Hough makes the area something of a testing ground for rehabilitation efforts. Warner & Swasey and two labor unions, locals of the Meat Cutters' and Building Service and Maintenance unions, also are planning to renovate apart ments there. The first rent-aided fixup is now underway.

California's S&L chief steps out

Gareth M. Sadler beat Gov. Ronald Reagan to the punch by resigning as California's savings and loan commissioner.

Reagan's executive secretary had disclosed that the new governor would ask Sadler to step down. The aide's announcement came one day after California's federally chartered s&Ls complained that the state-chartered segment of the industry had enjoyed a post-election windfall of branch-office approvals. Democrat Sadler, an appointee of outgoing Gov. Edmund G. Brown, was reported to have approved 25 in 29 days.

But Brown said Sadler's resignation was received two weeks before the furor over branches. He defended Sadler and denied there had been any change in the policy of approving applications.

Sadler reported that 87 of 111 branch applications were approved up to Dec. 20, 1966, compared with 31 of 72 in all of 1965. He defended the greater number on the ground that, in the tightening money market, more branches helped the s&L industry hold or increase local California savings.

Sadler was a Pasadena lawyer before joining the division of savings and loan in 1963. He succeeded Frederick E. Balderston as commissioner on Feb. 1 1965, and supervised the state chartered s&Ls during a perior that included the thrift industry's severest year of tightening credit For his leadership in maintaining public confidence in the associations House & Home recognized him as one of housing' Top Performers of 1966.

ARCHITECTS: Wallace K Harrison FAIA, known for such striking structures as the United Nations Secretariat and General Assembly Building and the new Metropolitan Opera House, ha won the 1967 Gold Medal of the American Institute of Architects the organization's highest award

DIED: Dr. Edward G. Locke, 62 director of the U.S. Forest Prod ucts Laboratory in Madison, Wis since 1959, Dec. 19 in Madison C. Arthur Bruce, 83, founde (with his father and three broth ers) of E. L. Bruce Co., Mem phis flooring manufacturer, Dec 22 in Memphis. He served a company president and chair man, retiring in 1961, and from 1945 to 1947 was president of the National Lumber Manufac turers Assn.; Hector Hollister 53, Washington mortgage banker Dec. 27 of a heart attack.



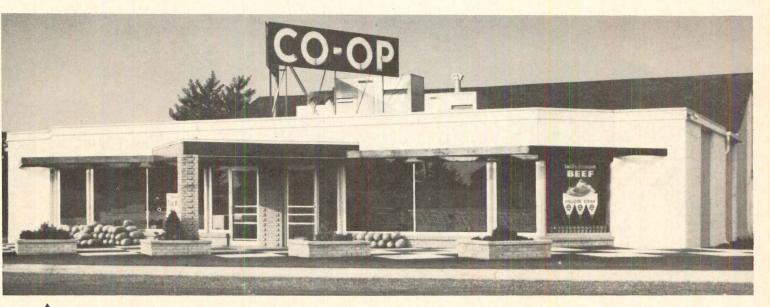




2.4.1 plywood roof decking was the answer when the budget was cut for the Peninsula Jewish Community Center, Belmont, Calif. When site preparation ran over budget, Architect Goodwin Steinberg, San Francisco, brought over-all costs back into line by switching from a board roof deck to 2.4.1 plywood. With these extrastrong, 1-1/8-in.-thick panels, joists were spaced 4 ft. o.c. with no blocking needed at panel edges. The 13,740 sq. ft. of enclosed space was \$12 per sq. ft.

The plywood roof on this Florida school cost 30¢ to 50¢ less per sq. ft. than any alternative considered, yet gave excellent diaphragm strength and equal fire protection. Insurance costs were also competitive with other systems. Wood trusses (installed 24 in. o.c.) as well as 1/2-in. C-D plywood roof decking are fire-retardant treated. Contractor P. J. Callaghan Co., Inc., St. Petersburg, used all DFPA grade-trademarked plywood. The school: Gulf Gate Elementary, Sarasota.



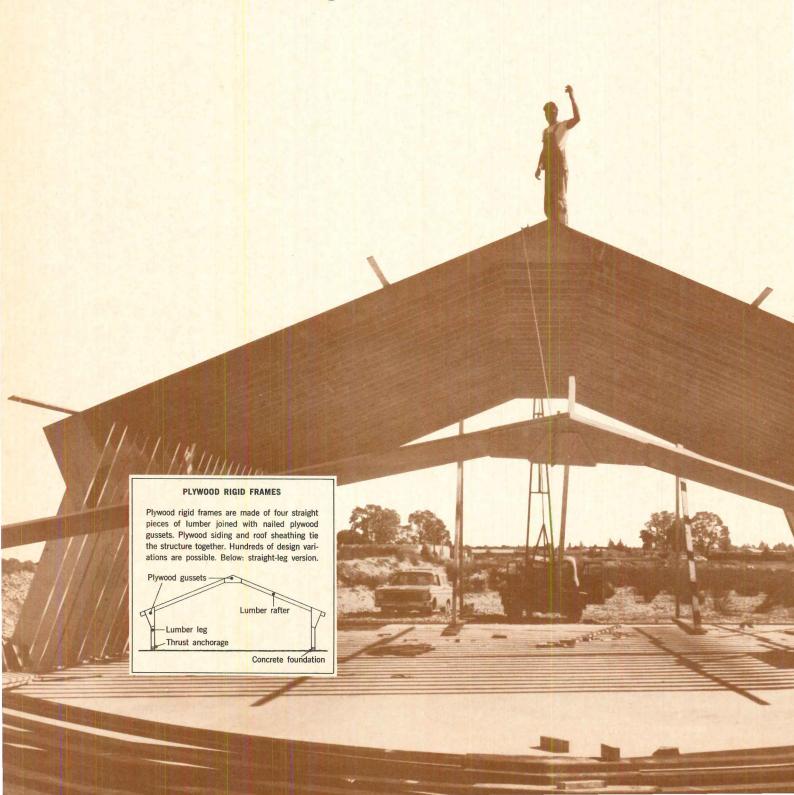


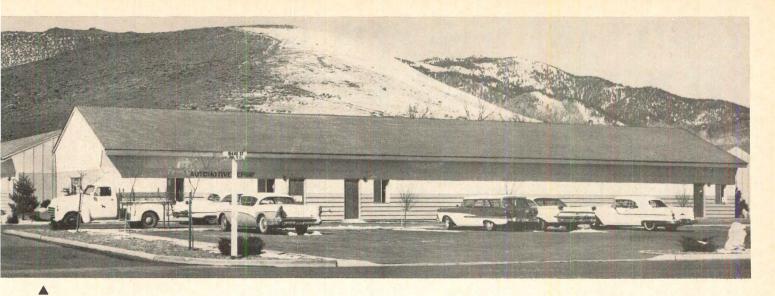
Plywood components saved \$600 and cut 6 to 8 weeks' delivery time on this Phillipsburg, N.J., supermarket addition. In-place cost of the 2,800-sq.-ft. roof was \$1.12 per sq. ft. — of which only 4¢ a ft. was labor. Consulting engineer Heikki K. Elo specified 12-ft.

stressed skin panels (left) to provide both roof and ceiling in one component. Panels are supported by 40-ft. plywood box beams. Component fabricator: Champlin Co., Hartford, Conn. Builder: A. Comito & Sons, Phillipsburg. (For another long-span roof system, see last page.)

With this new plywood system, you can put up the basic shell of a building for less than \$1.00 per sq. ft.

Plywood rigid frames are springing up all over... offices, farm buildings, warehouses, even a theater.





Plywood rigid frame warehouses like this are typical of the system's all-around economy. Total cost: \$3.25 per sq. ft., from slab floor to asphalt roofing. The 3,840-sq.-ft. building is one of four rigid frames built by Silver Sage Investment Co. in a Carson City, Nev., industrial tract. Costs are kept at a minimum because the system cuts on-site construction time and doesn't require skilled labor. "It gave us four good-looking and very serviceable structures," the builder said.

Here's where the plywood rigid frame idea all started: on the farm. It was first developed to fill a need for a low-cost building that used readily available materials and ordinary farm labor. This poultry house, for example, cost 80¢ per sq. ft. for the basic shell. The system has spread to all kinds of commercial buildings, even garages and second homes. Costs under \$1 per sq. ft. are still by no means uncommon.







This little theater proves that a plywood rigid frame doesn't have to be a "plain Jane." Builders Attebery and Secreto, Lakewood, Wash., used Texture 1-11 siding, grooved 8 in. o.c. Roof sheathing is 1/2-in. plywood, prestained to serve as exposed ceiling. Nature of the building and a tight budget demanded speed, maximum height and clear span. Cost of the 48 x 90-ft. structure: \$2.47 per sq. ft., including slab floor. Completion time: 60 days for three men. Builder's opinion: "I'd like to build a rigid frame every day," said Attebery, who has just completed another, a 32 x 50-ft. warehouse.

For a free rigid frame design manual, see coupon.

Don't let the low cost of a plywood wall fool you.

Plywood sheathing gives the strongest construction money can buy. To save still more, use plywood as siding and sheathing.





A portable plywood office was devised by Portsmouth, Va., tract builder Paul Merritt to keep him close to the job. By using plywood as siding-sheathing, he cut wall construction costs by 60%. Texture 1-11, nailed directly to studs, gives the building solid bracing strength, so it can be moved without racking. When it's time to move, Merritt simply unbolts the three sections from each other and their supporting columns; hauls them away on flatbeds; pours new concrete footings; rebolts columns, and he's ready for business.

This Minnesota apartment house illustrates one of the handsome new low-maintenance plywood sidings. Bruce Construction Co., St. Louis Park, Minn., used rough sawn plywood with battens to cut installation time, both on this 61-unit building and a companion 68-unit structure. In most areas, plywood sidings like this can be used without additional sheathing, with insulation between studs if necessary. Free booklets with complete data are available, as well as lists of sidings manufacturers. See coupon.

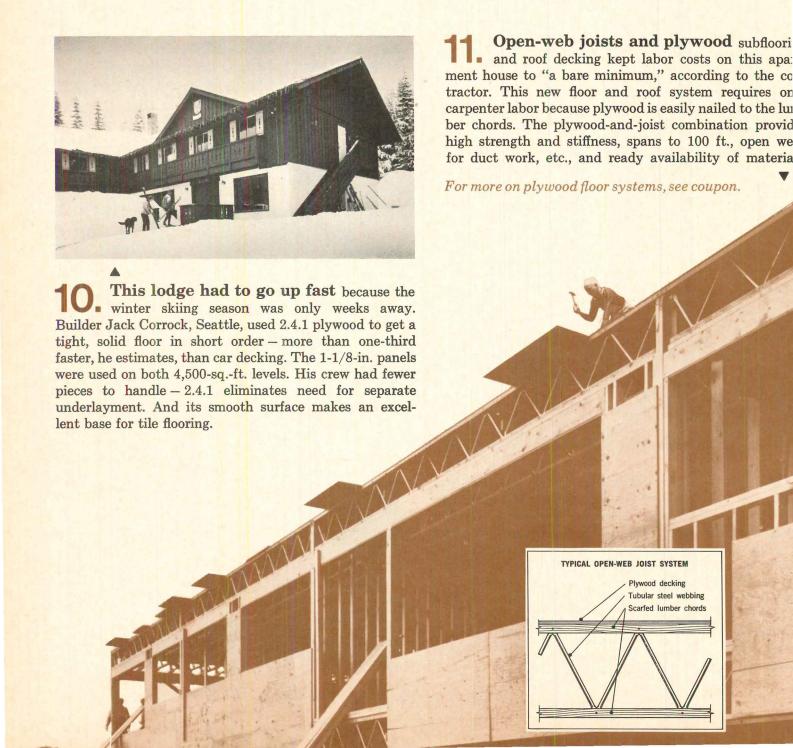


Tilt-up plywood walls cut construction time by one-third on this Sepulveda, Calif., warehouse. These rigid, lightweight walls can be installed quickly with a forklift (left), eliminating the cranes and heavy equipment that would be needed for tilt-up concrete walls. Each 20-ft.-wide, 22-ft.-high wall section was fabricated at the site. Half-inch overlaid plywood was applied to framing, then components were lifted into place and bolted together. Roof and wall subcontractors Beven-Herron, Inc., Torrance, Calif., used one thickness of plywood to provide both exterior and interior wall surfaces and form the structural diaphragm.

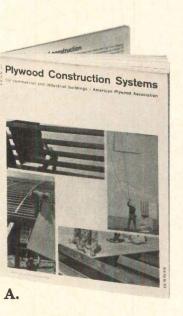


These two plywood systems can cut 30% or more off floor installation time.

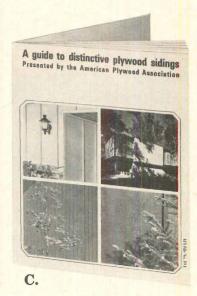
First: 2-4-1, the combination subfloorunderlayment panel. Second: long-span wood-steel joists plus plywood decking.



These 4 new booklets show more ways you can cut costs with plywood on commercial jobs.









- (A) Plywood Construction Systems 48-page guide on roof, wall and floor systems for commercial buildings. Includes application and specification data; information on fire-resistive systems, etc.
- (B) Plywood Rigid Frame Design Manual 770 design combinations straight or slant-leg, up to 48-ft. span. Includes 72 pages on material selection, construction procedures, diagrams and illustrations.
- **DFPA means quality plywood.** We urge you to look for the DFPA grade-trademark on all plywood you buy.

That way, you don't take chances on quality. All DFPA plywood is made in accordance with the high standards of the American Plywood Association's testing and inspection

For more information — on plywood and plywood construction systems — send the coupon. Or get in touch with us in Tacoma, or at one of our regional offices: Atlanta, Chicago, Dallas, Detroit, Los Angeles, Minneapolis, New York, San Francisco, Washington, D.C.

(C) Guide to Plywood Sidings — 24-page standard and specialty sidings guide, and list of manufacturers. Includes recommendations and suggested applications of Sturd-i-wall systems; color illustrations.

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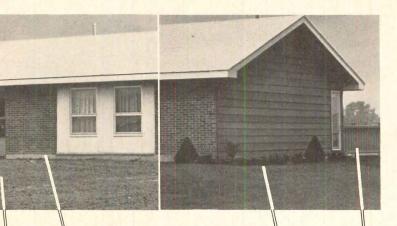
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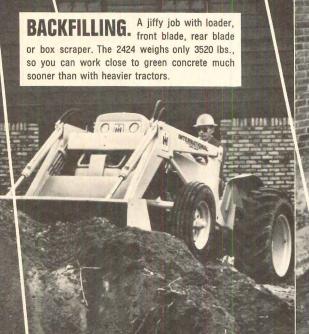


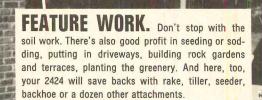
every step of your dirt work, rough breaking to finish

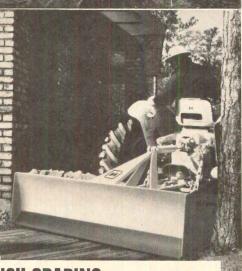




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bathrooms
sell your homes.



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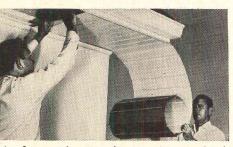
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You don't paint it. You don't vent it.

You just slide it in place.



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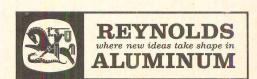
Just nail the channels on the ascia and frieze, and roll the soffit right off the coil into place. Polyethylene retainer spline seals it quickly and permanently.

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Colonial Buff (or 245 Mohave in western states).

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Contact any Mosaic Regional Manager, Branch Manager or Tile Contractor for samples, colors, prices and availability.

See Yellow Pages "Tile-Ceramic-Contractors". Or write: The Mosaic Tile Co., 55 Public Sq., Cleveland, Ohio 44113. In the western states: 909 Railroad St., Corona, Calif. 91720.

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Says who?

Says too many people.

You've probably heard it yourself many times. It's used to justify almost *anything*.

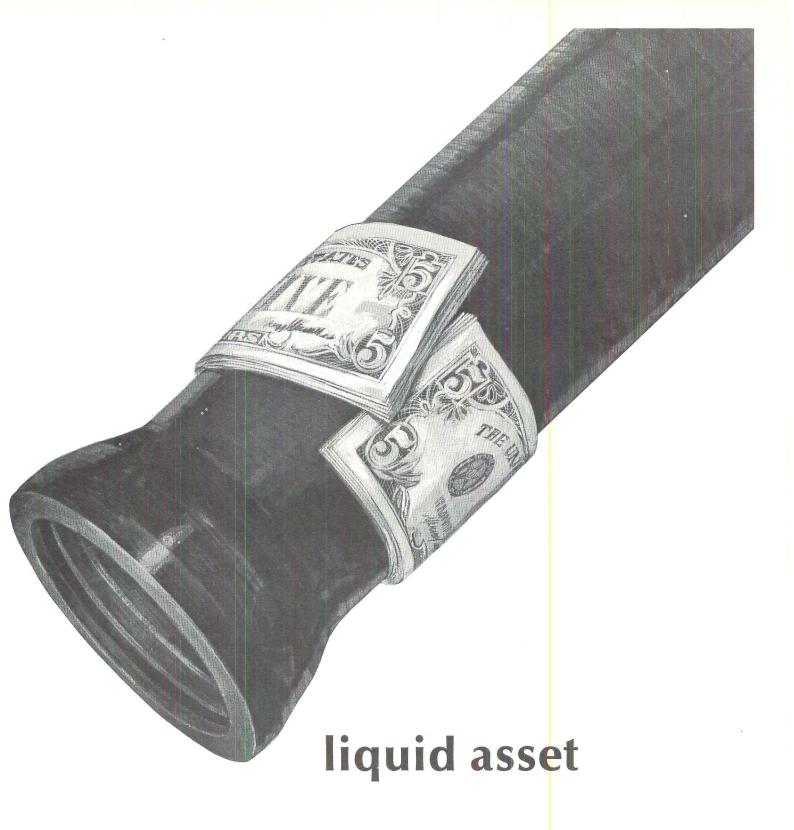
But how many times have you ever questioned this attitude or raised your voice in protest? An idea like this takes root just because not enough people do anything to stop it.

If you have ever asked yourself "Why doesn't someone do something about it?" you're talking to the right person. You.

It won't be easy. Sometimes you'll need encouragement. The kind you'll find in your place of worship.

Here you'll discover you're not alone. That, in itself, can give you the strength to say "Says who?" once in a while when it needs to be said.





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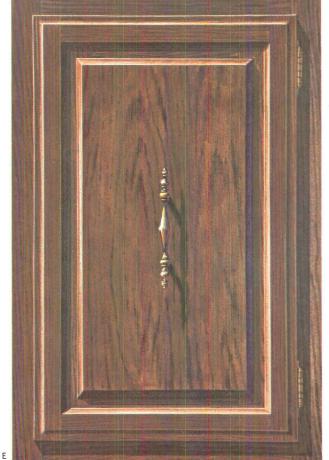
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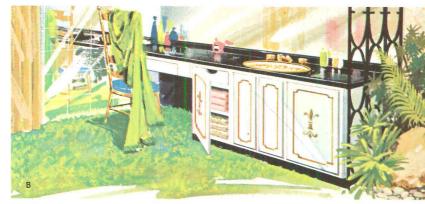
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And the finest group of Kitchen styles and finishes ever offered by this Kitchen Cabinet Manufacturer

Now, when builders and home buyers are more aware than ever before of the need for quality, Kem-



per is offering its finest group of cabinets . . . a cabinet line with more built-in value and design originality. A line that provides the builder with unique and valuable sales advantages.

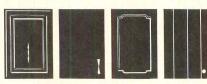
Let's look at some of these exclusive Kemper product advantages more closely and see if they would benefit you and your customer.

Kemper's famous glue block and concealed mortise and tenon construction pays off in several ways. This extra step construction means cabinets arrive at your job site



square and true. This means installation goes as it should... no racking problems, and less fillers needed because of Kemper Engineering. This quality pays off for the buyer, too. You can turn over the keys with complete confidence that the most beautiful part of the home, your Kemper Kitchen, will remain that way for years and years.

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genuine cherry veneers and now, the new, the superb Kemper English Oak . . . an elegant Kitchen featuring full grained Oak, deep sculptured reversible doors and massive brass hardware.

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to tell. The well known Kemper finish is truly a remarkable thing. No short cuts here. Special polyurethane dips, conveyorized finishing lines and baking ovens deliver a consistently high quality finish on all cabinets. Kemper cabinets successfully resist the effects of household soaps, alcohol, boiling water





and coffee. Few cabinet manufacturers can back that claim with a guarantee. Kemper does. Kemper is the only Kitchen cabinet manufacturer licensed by the National Association of Furniture Manufacturers to offer the NAFM Warranty. That's your protection . . . exclusively from Kemper.

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superior product features and still be competitive? The answer is an emphatic yes! Kemper is one of the most competitively priced Kitchen Cabinets you can buy. Anywhere.

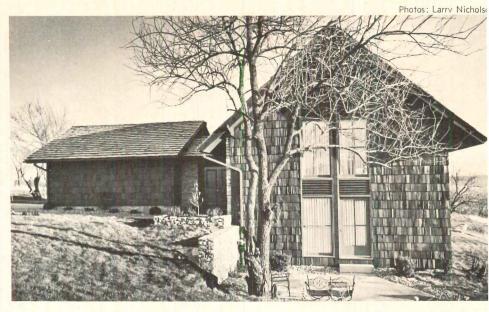
Don't you think it's time you stopped in to see your Kemper Distributor? He's in the Yellow pages. If you prefer, write Kemper for complete catalog information on the full line of Kemper Kitchens and bathroom vanities. Either way, you win.



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- A Kemper English Oak Kitchen
- B Kemper Provincial styled vanity
- C Kemper English Oak Kitchen
 D Kemper Corinthian styled vanity
- E Kemper English Oak door with reversible feature





A rustic contemporary designed to fit rolling Kansas terrain



MASTER BEDROOM on upper level has its own fireplace, beamed ceiling, doors to balcony.

This T-shaped split-entry house was created specifically for a 114'x160' lot that slopes 6' from front to rear. But with minor changes in the garage and entry, it can be placed on sites with steeper slopes or no slope at all, and it can also be angled to fit a side slope. The two living levels can be switched for an uphill lot.

This flexibility is the reason why the

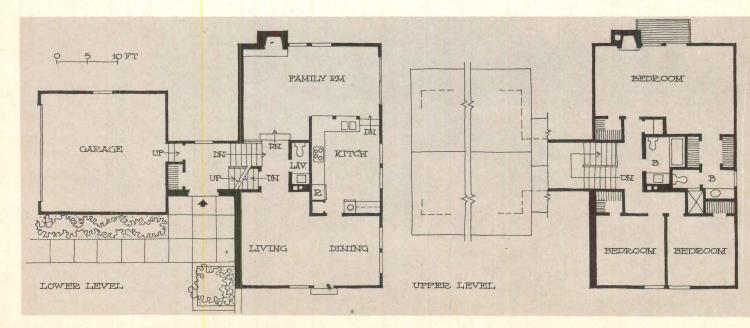


LARGE FAMILY ROOM is two steps down from lower-level foyer. Stairs lead up to main entrance.

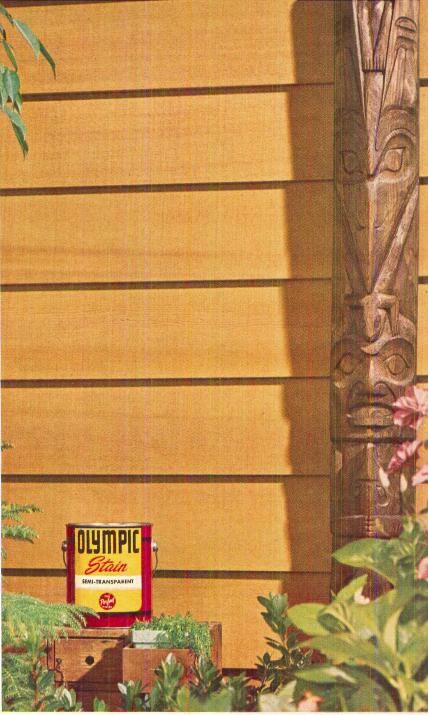
model was sold during the first week of the Kansas City Parade of Homes, an three other sales were made during the following two weeks. The 2,020-sq.-fhouse was designed by Nearing & Staa for Wood Marketing Inc. as that organization's first entry into the promotion house field. Built by N. W. Dible Co., it sold for \$34,900 including carpets.



WOOD POSTS separate family room fro







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sitive. Olympic Solid Color Stain. Hides like expensive t. But it costs a lot less. Easier to apply, too. Even over paint. And it doesn't make a thick film over the wood; can still see the natural beauty of the texture. Oh, and guaranteed. Won't crack, peel, flake or blister."

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"This is Olympic Semi-Transparent Stain."

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"Exactly. See how it adds color and depth without hiding the natural richness of the wood?"

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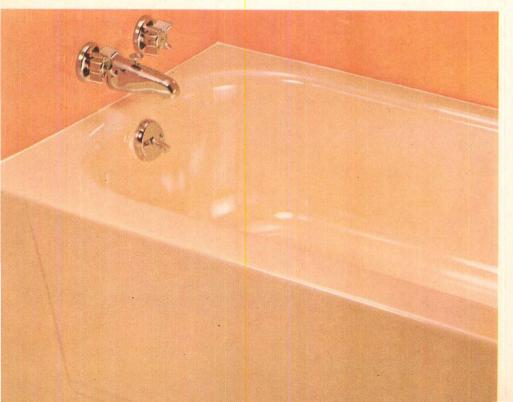
"Right. And in 36 tones. That's why architects like it. And builders. 'Fact, anybody who likes wood likes Olympic."

"I like wood."

"I knew you were my kind of people."

Olympic Semi-Transparent Stain







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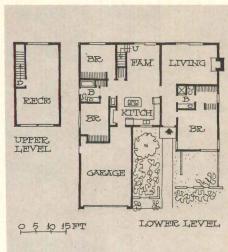


Left to right; Top row: Chrome bath and shower diverter with Crystalite handles (4782Y); Ribbon design lavatory (1318R) with matching satin gold Ribbon faucet (107AGR). Middle row: Satin gold faucet with Crystal handles (107AGC) on Gold Lace patterned lavatory (1318GL); Satin gold Swan faucet (107GS) on lavatory in blue with Evergreen pattern (1318E); Chrome faucet with Crystalite handles (107AV) on green lavatory with Wedgewood pattern (1318W). Bottom row: Bathub in tan (061) with chrome bath waste (4782); Closet in yellow (1200E).

starts on p. 60

You can offer buyers extra entertainment space in an unfinished attic . . .





The attic, in this case, is a 500-sq.-ft. room over the central portion of the one-story house. Builder George M. Holstein furnished this "bonus" room as a party room with its own bar, but he also shows it as a card room, pool room, TV room, teenage room, or a fourth bedroom. Glass gable-end windows at either end look down into the main entrance court and the rear yard or patio. Stairs lead up from the

family-dining room behind the kitchen.

The extra room, well separated from the rest of family living, has made this \$30,000 model the best seller in its Costa Mesa, Calif. project. Other sales features include a separate master bedroom and bath with a private patio, a walled garden court, an open peninsula kitchen, and sliding glass doors in all the rooms across the rear of the house.

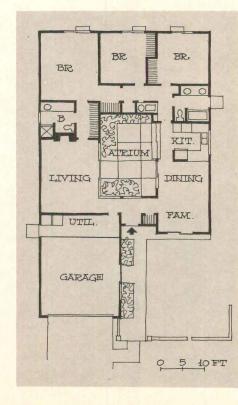


... or in a two-car garage that can double as a party room





This garage was turned into an extra room by the addition of sliding glass doors in the side wall facing the entrance court and pool area. Then Butler-Harbour Construction Co. screened off the rear laundry area and put down a border of outdoor-type carpeting. On a 50'x100' lot in Anaheim, Calif., the house sells for about \$26,000, including concrete-block patio walls, carpeting, and many built-ins.



Letters start on p. 74

Now! Put your money where it shows...and sells!

MICA® brand laminate, Planked Birch 441. Buycan color-match furniture abinets perfectly.

ette surfaced with Wall and counter surfaced Built-in console covered with with FORMICA® brand laminate. Grease and dirt wipe clean in a jiffy. Sauterne Finesse 262.

FORMICA® brand laminate. Rich Spanish Oak 344 matches ceiling and wall beams. Color accent of Pumpkin 872; wall panels of

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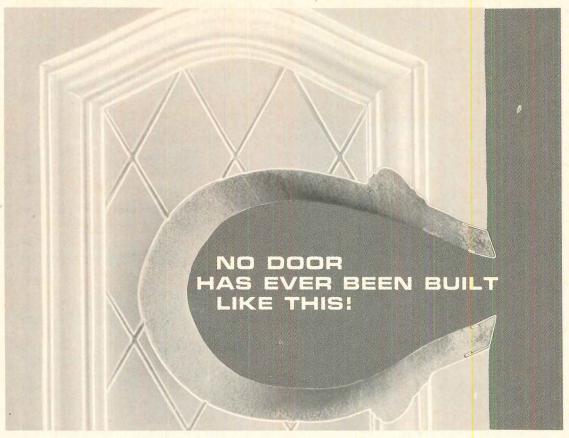
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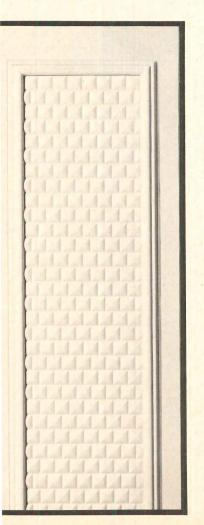
subsidiary of CYANAMID

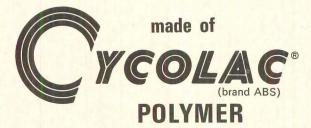


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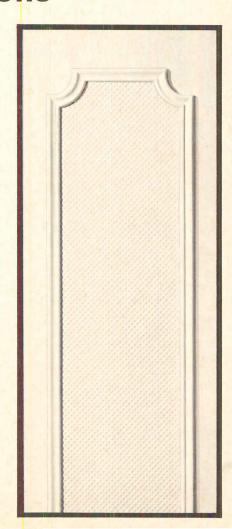
The doors are manufactured by H. C. Products Co., Princeville, Illinois. Guaranteed to provide smooth, quiet, effortless operation in *every* season—winter, spring, summer or fall. They'll add selling magic to your homes.

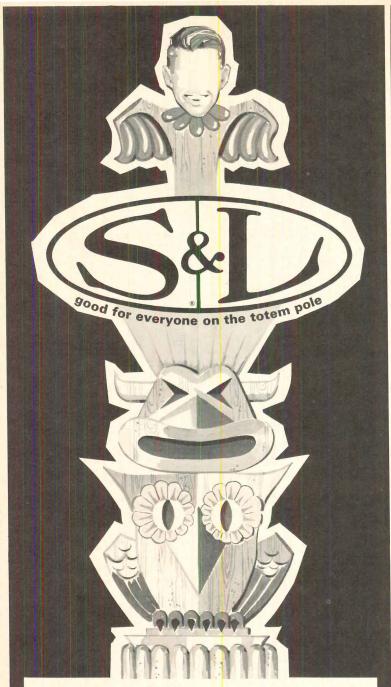
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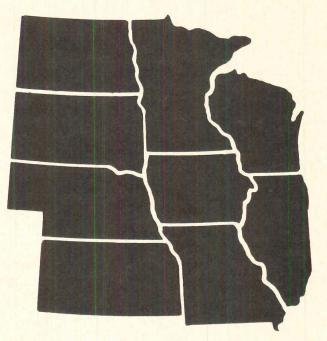
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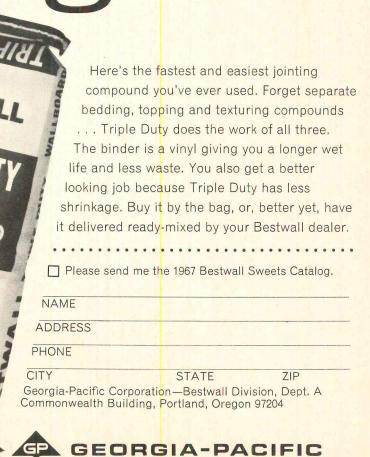
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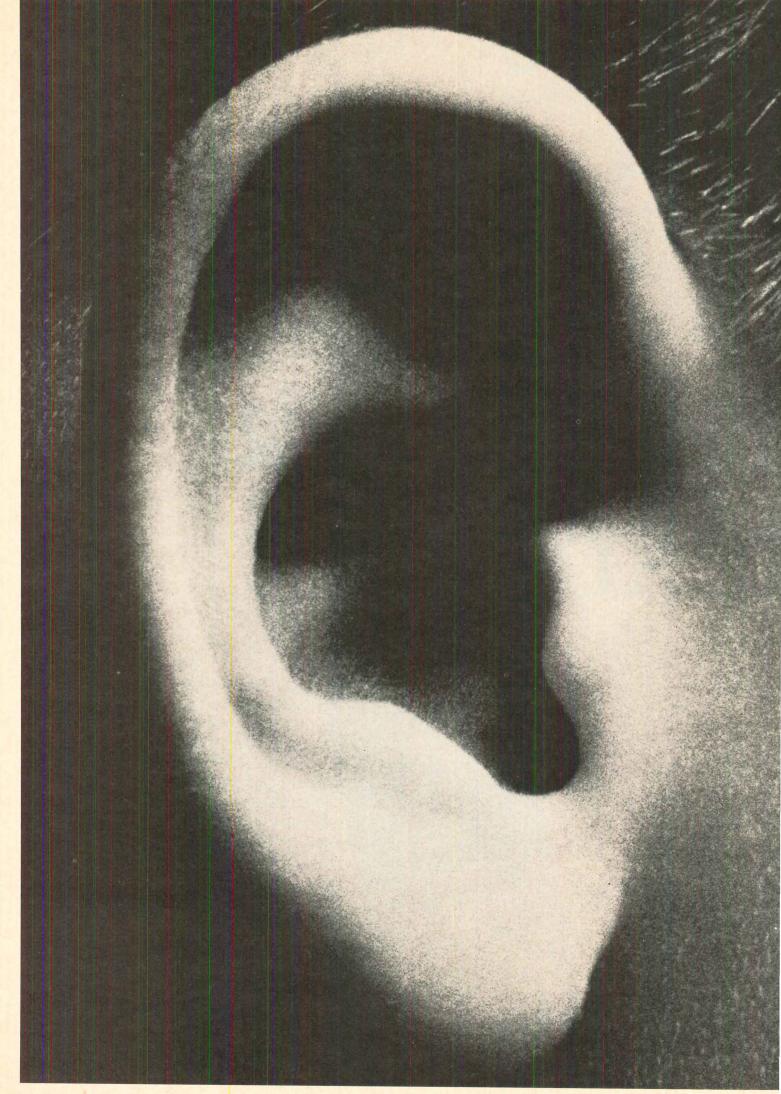
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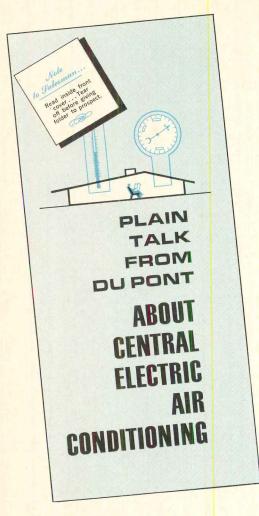
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Prefabbing's real problems

H&H: I've gone over your December article on prefabrication, and I think you deserve a big hand for it. I've been involved in prefabrication sales and management from both the manufacturing and building end for nearly 20 years, during the course of which I've fought the prefab battle from the East Coast to Arizona. And this is the first time I've seen someone attempt to put their finger on the real underlying problems in the industry and not bury their head in the sand with a lot of unwarranted optimism.

I have preached for many years on many of the things that were touched on in the article and with almost no result. Too many people in the industry refused to recognize where their real competition was coming from, until it was too late for them to do much about it.

There is one major point which, I have felt for years, was the Achilles heel of the oldline manufacturers and which was not touched on enough in your article. This is the fact that larger home manufacturers created their own monster in the race to out-do their competitors in the various services they offered: financial, land planning, advertising, architectural engineering, decorating and mar-keting assistance, etc. The manufacturer increased his own overhead to the point where he had to charge the builder an additional \$400 to \$800 per package to cover the cost of providing these services.

This was great for the small builder, or

the neophyte. However, if all these services performed the job they were expected to, the builder grew up. And when he grew up he could then better afford to hire these services into his own organization than to continue paying premium package prices. Result: a lost customer. I've seen this happen so many times over the years that it has to be one of the biggest factors in the decline of the major

manufacturers.

RALPH P. LYNCH, general manager Huber Homes Inc. Dayton, Ohio

Pent-up housing demand

н&н: We share your enthusiasm for the fact that there is a pent-up boom [Nov.] and are gearing our plans to be ready when the ex-

WALTER C. GUMMERE The Tappan Co. Mansfield, Ohio

The marketing gap

H&H: Recently I noted two headlines side-byside in the financial section of the Boston Globe: "Motorola announces record color set sales" and "Housing starts at lowest point since WW II."

Kind of gets you right here, doesn't it?

The hard-goods industry sells billions of dollars of goods that are not needed, and we can't induce people to buy enough of what they need.

Your November editorial [stressing the need for better marketing] is right, but not right

There is an aspect of the problem beyond the control of the low-overhead home building operation. It takes a concentrated buying power of millions of dollars to match a Motorola or a G.M., for example, in 1) stimulation of demand, and 2) motivation re-

So where does the money come from?

In an earlier issue, you did an excellent job on prefabrication and components, pointing out that they are only occasionally useful ir the area of product quality or cost. But often work with prefabricators because they generate leads, and their salesmen occasionally tell me things about how other builders are selling houses.

Let's carry that further. I don't think cen tral manufacturing can do the production job as long as our economy allows freedom or choice in land and structure. On the other hand, the very fragmentation of supply tha results also produces a vacuum that the pre fabricator comes closest to filling. He has the design staff, the authority (resistance to buye whim) of remoteness, the contact with na tional media and, perhaps someday, the dollar volume to give us the staff assistance.

Obviously we're far from that point, for

many reasons.

But we must find some way to put million of those dollars into TV advertising and loca sales training before we can meet your No vember challenge properly.

Francis H. Killorin, treasure

Custom Builders Trust Orleans, Mass.

P.U.D. or O.S.C.?

H&H: Regarding your article on P.U.D. [July '66] and Carl Norcross' comment [Nov.].

"Open Space Communities" may be a rea sonable name for some forms of Planned Uni Developments, but I suggest the concept is far broader than the example in your July article and than Mr. Norcross recognizes. When one removes his head from the NAHB and UL (Urban Land Institute) sand, he finds many segments of society don't attach stigmas to "Planned," "Unit," or "Development." By the way, what is "Open Space"?

EDWARD M. RISSE, senior planning specialis Herkimer-Oneida Counties

Comprehensive Planning Program Utica, N.Y.

Market memo from 49 cities нан: Your "Market memo" [Dec.] is a four

star production. Very interesting reading. PAUL E. VOEGTLIN, real-estate broke

Haddonfield, N.J.

How to house the poor

H&H: I certainly agree with you [Jan.] that until institutional changes are made we wi not be able to apply existing technology fully nor is there much inducement to develop nev breakthroughs which may not be utilized en fectively. Surely we need to do all the thing that we can, both to develop better method: materials, and systems, and to facilitate th application of each and every one of the nerideas and techniques that will work.

ROBERT C. WEAVER, secretar Department of Housing and Urban Development Washington, D. C.

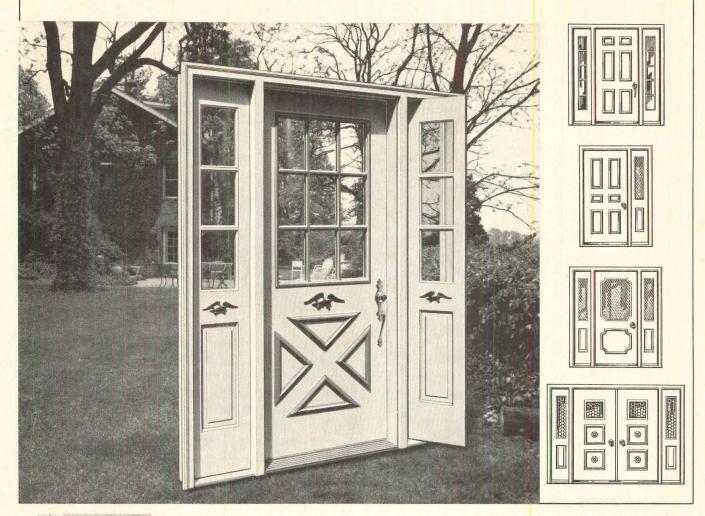
What makes people buy

H&H: I have just finished reading your Decen ber editorial on the five basic buyer motiva tions. It is a beautiful piece of writing. Arch tects have tried to pinpoint the emotion elements that are included in the word "home You have done this well.

The closing of the article should be pul lished in every building and architectur magazine available. We have to show the client better housing communities. He doesn know there is anything better until he see and walks through and experiences it.

RICHARD R. REDEMER Chicago, Ill.

No need to mar beauty of entrance with either screen door...or storm door!





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Patents No. 3,153,817, 3,273,287 and 3,238,573. Patented in Canada 1965. Other patents pending.

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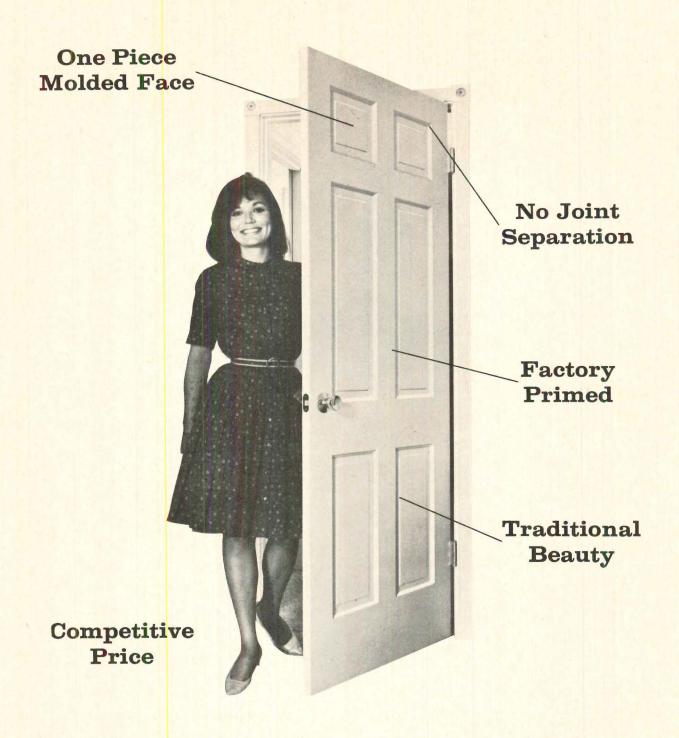


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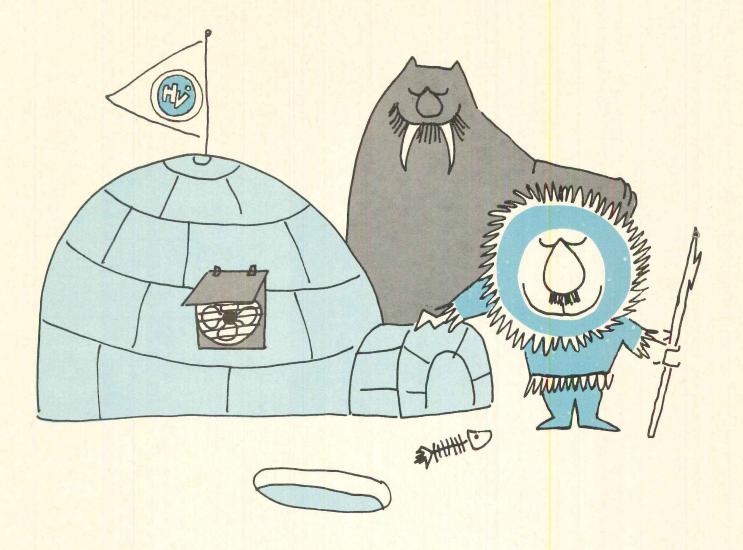
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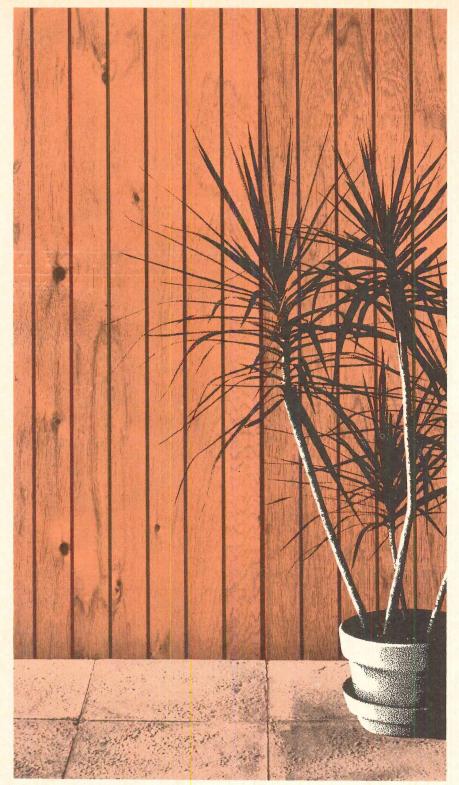
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Only <u>you</u> can prevent forest fires





Be sure to drown all fires

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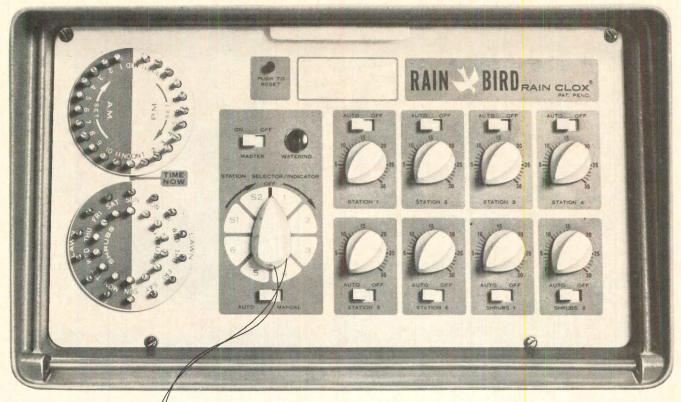


Crush all smokes dead out

Only <u>you</u> can prevent forest fires

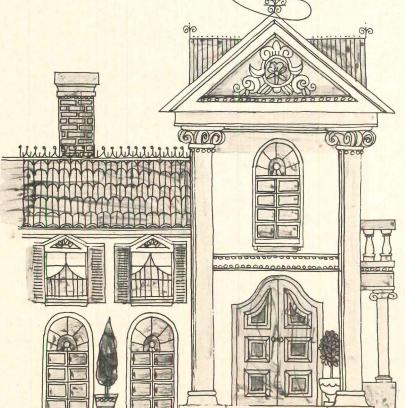


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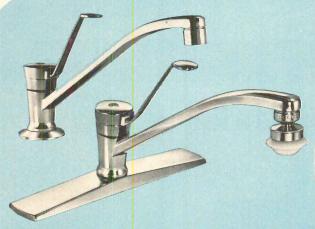
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EDITORIAL

Money, money, money

Q: Why should pension funds be interested in mortgages? A: Because a 1% yield increase can jump benefits 20% and mortgages meet all the criteria of a prudent investor

We hope the housing industry's pursuit of pension funds will not be as arduous as Jacob's pursuit of Rachel in Genesis. Jacob labored 14 years to win the hand of Rachel, but we can do a lot better by showing pension-fund trustees the advantages of sound residential mortgages.

Our need is both substantial and immediate. As a result of the tightest money in more than 30 years, savings flows are down drastically, and there is no reason to believe they will increase very much this year. Until s&Ls and banks can compete with industry and government for savings, funds will flow to corporations and government investments before they flow to s&Ls and banks. All sources put only \$23 billion in new money into mortgaging in 1966, compared with \$29 billion in each of the three previous years. Pessimistic economists think there will be only \$17 billion of new money from traditional mortgage sources for mortgages in 1967.

Only in pension funds has the net flow of savings been growing as fast or faster than the economy as a whole. So until mortgages can tap pension funds more effectively, housing will face tight money and high interest rates unless, of course, there is a general recession.

Sure, we can seek more assistance from government, but government efforts to prime the mortgage pump can be self-defeating because they frequently draw new money from sources that could have put it into mortgages anyway.

Total assets of all public and private pension funds last year were \$160 billion, an increase of almost \$12 billion over 1965. Private, state, and local pension funds totaled about \$130 billion. Of that, at least \$75 billion could be invested in any way the fund trustees find prudent. And in the next ten years these funds will more than double.

Right now about 6% of all pension funds is invested in mortgages. If we as an industry can get a hearing before the funds' trustees in the next few years, we should be able to increase the mortgage portion of their portfolios to at least 25%. It is extremely difficult to change an existing portfolio, but the flow of new funds into pension plans might be placed largely in mortgages.

There are six good reasons for this kind of investment:

- 1. Yield. Mortgages usually yield up to 1% more than bonds of comparable quality—triple-A corporates, long-term governments, and municipals.
- 2. Diversification. First mortgages increase the variety in a fund's portfolio and also provide geographical diversity because they are acquired from all over the U.S.
 - 3. Flexibility. Mortgage bankers, originating and selling

mortgages, provide a service that allows pension-fund trustees to respond quickly and efficiently to a shifting market. A mature mortgage portfolio usually has an annual cash return, through amortization and prepayments, of about 10% of invested capital, and this 10% is available for benefit payments or reinvestment.

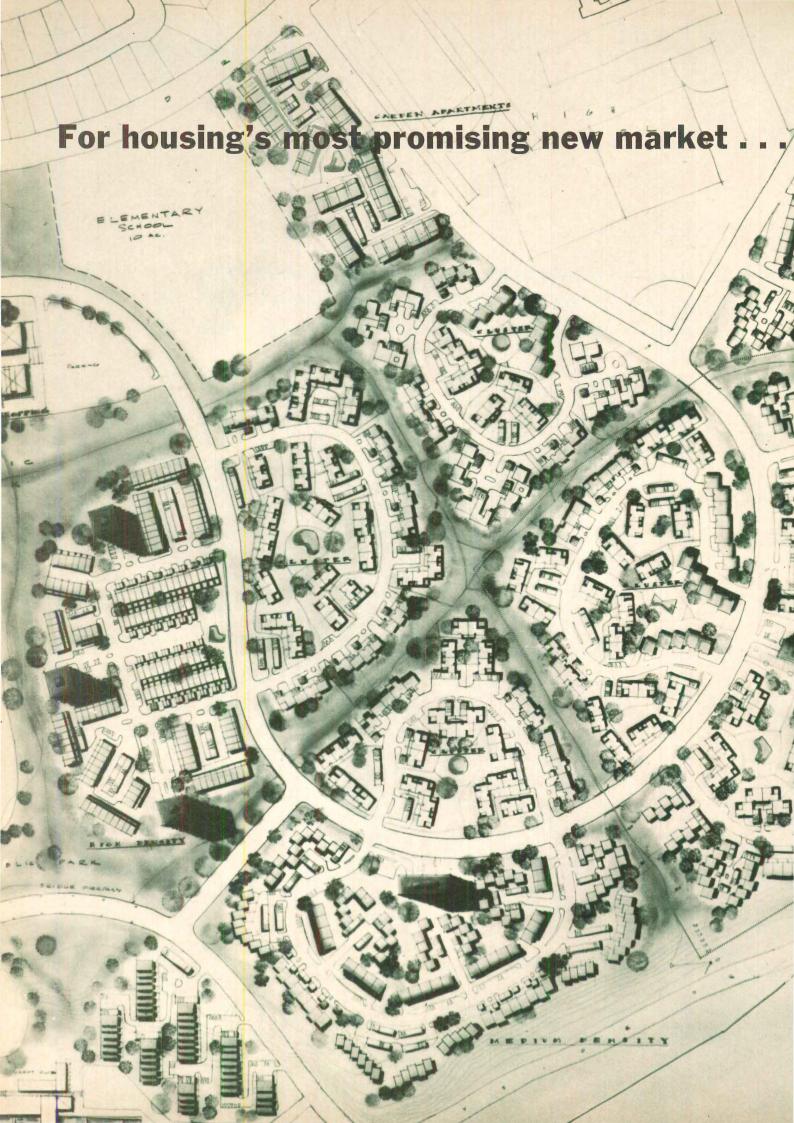
- 4. Security. Real-estate security and safeguards behind the borrower's credit assure the mortgage investor of double protection. These two factors, plus the constant amortization of principal, make the mortgage loan one of the safest investments available today.
- 5. Convenience. Mortgage bankers, in what is virtually a nationwide network, assemble mortgages for immediate delivery or for future delivery whenever a fund wants to buy.
- 6. Social benefit. Pension funds are created with payments by wage earners—the very people who would benefit most from an enriched reservoir of mortgage money. Without these people, pension funds would not exist.

Right now many pension funds will buy FNMA participation certificates which are collateralized by FHA-VA loans and which are much like bonds. Pension funds in general don't like to handle mortgages—it's too much trouble. But they are sometimes receptive to buying a single piece of paper issued against pooled mortgages by a reputable corporation—a mortgage trust, for example—with a solid economic base. Or they will often accept a single note from a corporation—a mortgage banker, for example, who buys mortgages for them and handles all the paperwork involved. The flow of pension funds into mortgages would be speeded, too, by the creation of a Central Mortgage Bank backed by a consortium of manufacturers, builders, and mortgage bankers.

As the Mortgage Bankers Assn. points out, "The law places a strict fiduciary duty on all trustees which, stated simply, requires investment in securities that produce the maximum income consistent with safety." With these sales tools, we as an industry should be able to sell the trustees of pension funds on the benefits of investing funds much more heavily in realestate mortgages.

Most of you realize that House & Home was 15 years old last month, but how many of you realize that with this issue Senior Editor James P. Gallagher celebrates his 15th anniversary with House & Home. His mature judgment and experience in housing help make House & Home the magazine it is. Happy anniversary, Jim.

-RICHARD W. O'NEILL



... a new kind of planning and design service

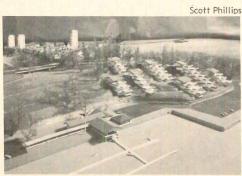
The planned unit development at left could have been designed in the usual way, with land planner, architect, engineer, interior designer, and landscape architect each working more or less separately and often with little idea of what the other was about. Had that been the case, there's an even chance the project would never have gotten off the ground.

Fortunately for all concerned, that isn't what happened. All of the above design skills did indeed go into The Bluffs (H&H, Apr. '65). But instead of going in piecemeal, they were supplied as a design package that began with raw-land studies and ended with complete working drawings. The result is a community which is not only unusually attractive but also boasts an enviable sales record.

The creator of this packaged design service is Architect Richard Leitch of Newport Beach, Calif. His firm, Richard Leitch & Assoc., began concentrating on P.U.D. some six years ago. Today, with a dozen big projects under its belt and more than that on the drawing board, it stands as one of the very few specialists in the field.

Leitch's concept of P.U.D. design can be stated this way: The various design aspects—houses, land, grades, etc.—are completely interdependent; hence they must be worked on simultaneously and under one man or firm. And, Leitch believes, this interdependence even extends into politics and merchandising; he undertakes all dealings with local planning officials and handles the design and decorating of model areas.

The scope of Leitch's design service, and the way it is organized to mesh with the builder's or developer's needs, is best seen in action. The next eight pages show, stage by stage and step by step, how Leitch and Project Architect Sam Kiyotoki created The Bluffs for The Irvine Ranch Co. and Builder George Holstein Jr.



Houses and siting



Land planning



Zoning presentations



Working drawings

1. The schematic: Is the project feasible—and in what form?

For a conventionally planned project, feasibility stops at statistics: How many units of what size and cost must be built to make the project profitable? But under Leitch's system, a project must also be feasible from a land-planning, engineering, and design point of view.

The schematic phase begins with a study of all available data—surveys, zoning, market etc.—plus a visit to the site by Leitch. And more often than not the builder or developer already has a development scheme.

"We start with this scheme," says Leitch, "and if it works, fine. If it doesn't, we try to rough out one that does."

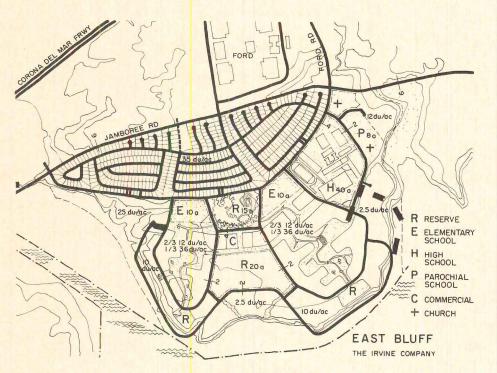
In terms of money, the schematic phase represents about 15% of Leitch's total fee. About one-third of this goes to outside consultants such as engineers who are normally en-

gaged by the developer, rather than the architect.

In terms of time, the schematic takes from six to ten weeks to complete. "Roughly 10% of our clients drop out at the end of this phase," says Leitch.

As the plans below show, Leitch began the first 150-acre section of The Bluffs with a master plan from the developer, the Irvine Ranch Co. The high price of the land—\$35,000 an acre—clearly demanded high-density housing, and the master plan called for over 2,000 units: one- and two-story condominium townhouses, low and high rise apartments, and some detached houses on prime waterfront land. One large greenbelt area ran down the center of the section.

Key steps leading from this plan to a program that the developer, the builder, and Leitch himself considered realistic are shown below.



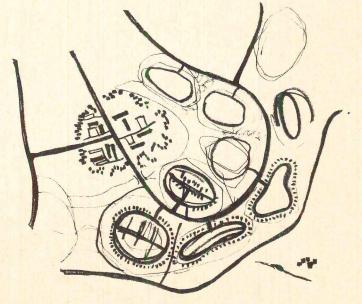
Master plan of The Bluffs (shaded section) was Leitch's starting point. It showed one main road loop. "But otherwise," says Leitch, "it was little more than an area plan."

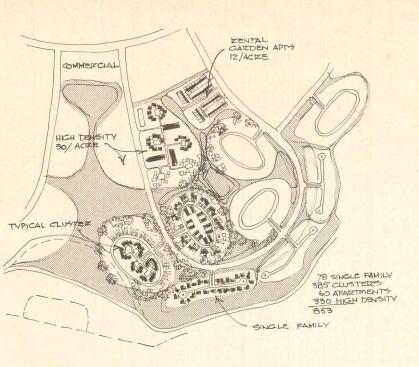
Leitch's strongest impression of the site was its flatness. "When you got 100 yards back from the bluff," he says, "you couldn't see the water. So right from the beginning we felt that some sort of recontouring would be necessary to open as many houses as possible to the view."



Preliminary sketch broke the 150-acre area down into smaller neighborhoods, but didn't specify the types of houses that would go into each.

"This sketch established a basic circulation pattern," says Leitch, "and began to show the relationship of small neighborhoods to open spaces. We retained the master plan's road loop, but shifted its position somewhat."



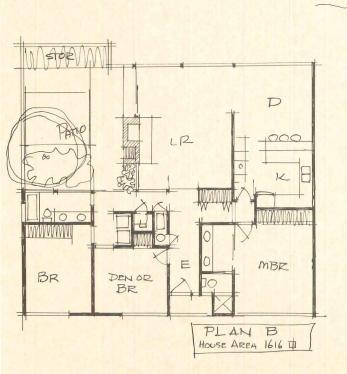


Detailed neighborhood plan, the third in a series of experimental layouts, is a major step towards determining a practical overall density. This particular scheme produced about 850 units—too few to make the project feasible.

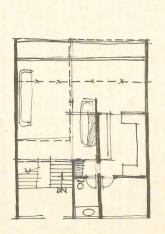
At this point, the neighborhoods in front of the main loop are completely separate—one is a loop and the other two are dead-end Ts.

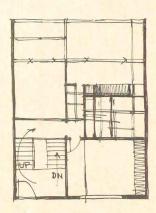
Refined schematic brought the over-all density up to a feasible figure: There are now just over 1,200 units in the project (far less than the developer's master plan called for). The waterfront sections have been changed from several small neighborhoods to a secondary loop with houses on both sides of the road.

"Even though much more refining was necessary," says Leitch, "we knew at this point that the project was feasible. We were ready to go on to the next step."



First house plans were roughed out concurrently with the land plans shown above. "In a P.U.D., the land and the houses are inseparable," says Leitch. "It didn't make sense to put little black squares on the land plan without knowing whether the





squares represented livable houses. These units are very rough, but they represent the way the builder was thinking in terms of size and cost, and they also take into account our plan to re-contour the land for better views.

2. The concept: The project is ready for approval and pricing

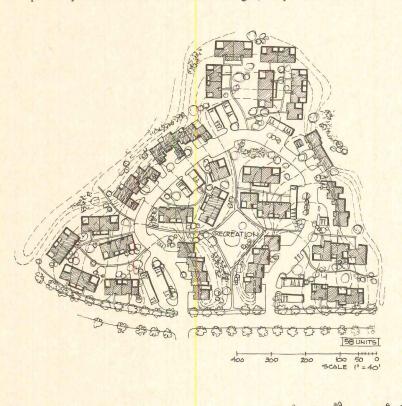
The previous schematic phase of Leitch's program produced a development program that *could* work; in the concept phase, the program is refined to the point where it *does* work. The final land plan is worked out concurrently with engineering studies for grading; house plans are worked out in detail; and the first renderings are made to show in a general way how the project will look. The concept phase has two primary aims:

1. To bring the project to the point where it can be presented to planning and zoning officials for approval. "We'll probably be asked to make some changes," says Leitch. "But

we have to have things worked out so completely that if the officials say, 'okay, we'll approve it if you build it just that way,' we can do it."

2. To give the builder a basis for exact pricing. "At the end of this planning phase," says Leitch, "the builder will decide whether or not to go ahead with the project. So he has to be able to cost out everything—earth moving, roads, utilities, and the houses themselves."

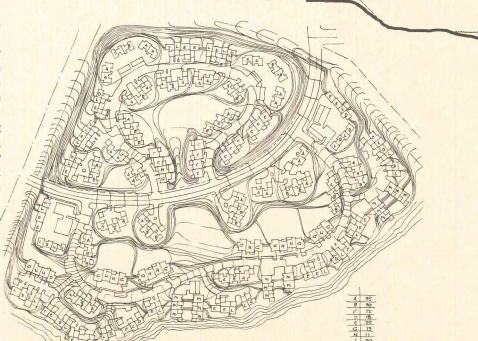
If all goes well, says Leitch, this phase will take from two to three months. But zoning problems may stretch it out much longer. Like the schematic, its cost is about 15% of the fee.

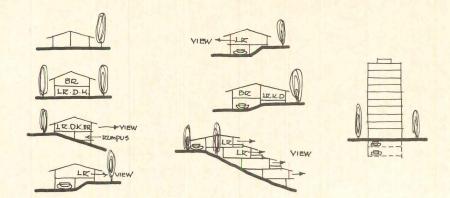


Neighborhood studies are made on a large enough scale (1/50" per foot) so that each house can be sited. And precise grading is worked out on a neighborhood basis. Says Leitch: "We balance out our cuts and fills for each small portion of the project, and then we can be pretty sure that the project as a whole will balance."

Grading plan for the entire project is worked out from the neighborhood plans. It must be highly accurate (2' contour lines) because earth-moving costs will be figured from it. And, in the case of The Bluffs, it is the grading which gives the majority of the houses a view of the water.

The sections above show the grading scheme Leitch adopted: a stepped-down configuration, which provides views for houses, and swales, which were cut to add topographical interest to a site that, says Leitch, "was flat as a table."

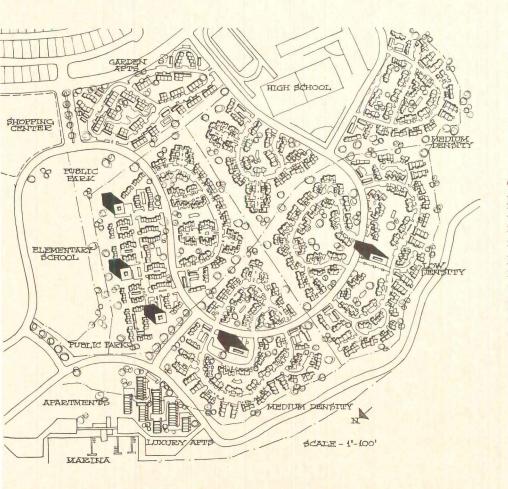




House sections are now determined for all the models to be built in the project. These will be keyed in to the final land plan. Living areas are lettered in to show how each house is related to the grade and the view.

First rendering is made primarily to show to planning and zoning boards. But it is also the first glimpse the builder himself has of the way the project will look. Says Leitch: "When George Holstein saw this, he said, 'Oh, now I see what you're trying to do.'"





Completed land plan is now ready for approval by planning and zoning officials. Every house shown represents a definite model. "We can still make interior changes in house plans," says Leitch, "but the perimeters of all the buildings are now frozen." Landscaping is also planned at this stage; major trees are shown on this plan, but the more detailed landscaping is confined to neighborhood layouts like the one on the opposite page.

"We were fortunate in the case of The Bluffs," says Leitch. "Our first plan was accepted with almost no changes."

3. The preliminary: Plans are turned into designs

"At this point," says Leitch, "the project is approved and the builder is committed to starting it. By the end of the preliminary phase we'll be ready to draw up the models."

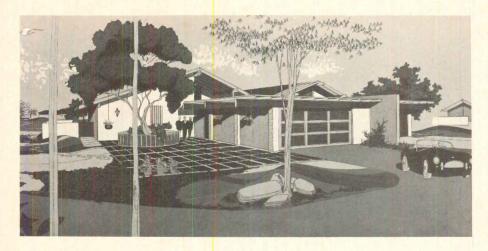
The preliminary includes these basic steps:

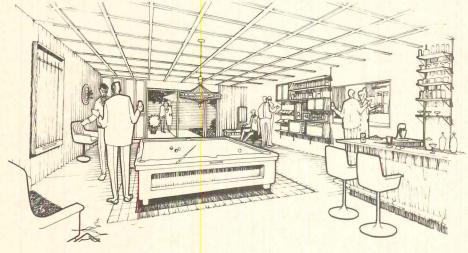
- 1. Architectural studies and renderings are begun for both exteriors and interiors of houses and apartments.
 - 2. Almost-final house plans are drawn up.
- 3. Final engineering studies are begun. A land-use map was made and approved in the previous phase; now both the engineer and landscape architect prepare for the final map

recording by establishing final grades and drainage.

- 4. Recreation facilities are designed in detail.
- 5. The model area is designed and detailed.

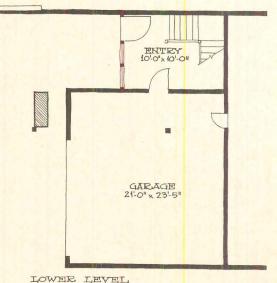
On the average, the preliminary phase will eat up between eight and ten weeks; its cost is about 10% of the total architectural fee. When it is completed, working drawings for the models will be drawn; and when they have been revised (on the basis of experience gained during the actual construction of the models), final working drawings will be made. About 50% of Leitch's fee goes into this work.



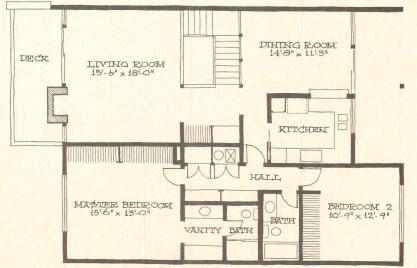


Renderings are made of exterior design, and interior designers start work at the same time. "Until now," says Leitch, "our plans have dealt only with spaces. Now we're preparing for working drawings, so we have to determine both detailing and finish materials."

Like most parts of Leitch's design program, the making of renderings is closely related to other design operations. Hence final renderings won't be made until the working drawings for the models are well under way. "We'll see things in the drawings that will make us change the renderings," says Leitch, "and vice-versa. And after the models are built, we'll go back and make more changes. It's a process of growth."

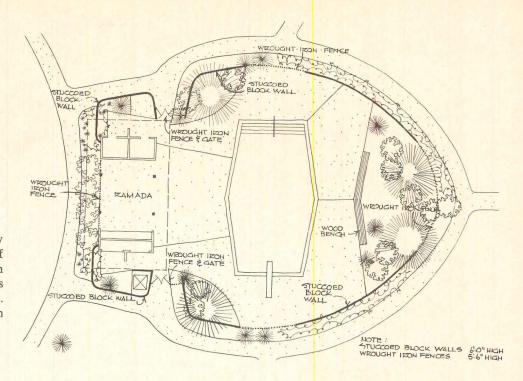


Preliminary house plans are a refinement of those made in the previous phase. "The changes," says Leitch, "are made partly

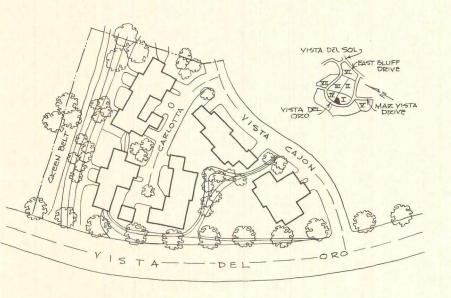


UPPER LEVEL

for marketing reasons and partly as a result of the detailing that emerges from renderings. They all go together."



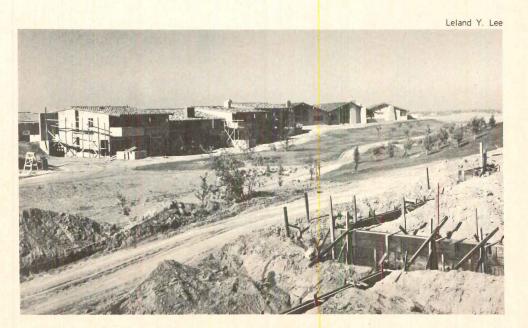
Recreation facilities, which up to now have been little more than pieces of ground on the land plan and a few rough sketches, are designed and detailed. This is a community pool with dressing areas. (A photograph of it in its completed form is shown on the next page.)



The model area is laid out. "We ran into trouble here," says Leitch, "by not including all the models. The ones that were built sold well, the others didn't. So six months after The Bluffs opened, we made a whole new model area with every model in it, and everything started to sell. We haven't made that mistake again."

and finally, construction tarts in the model area

Forking drawings for the models are made a soon as the preliminary designs have been completed and approved. "These are of the final drawings," says Leitch. We'll find bugs when we build the models, and they'll have to be corrected. When mey are, our program is completed. We may be asked to make later changes in the houses, but our charges for such work are made on a conventional hourly basis." Supervision of model-house construction at the up the remaining 10% of Leitch's fee.



continued

Result of Leitch's design service: a handsome—and successful—project

"We wanted The Bluffs to be a park-like community," says Leitch, and these photos show how well this aim was accomplished. Despite its relatively high density (eight units per acre), the project has an open, natural feeling. And the single design theme ("I guess you'd call it Spanish Mission,"

says Leitch) adds an atmosphere of quiet permanence.

Statistics show that buyers appreciate both the design and the atmosphere of The Bluffs. Since it opened in mid-1964, 500 units have been built—and sold. And there is a waiting list for the next 200-house section, which is just starting.



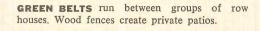
wide swale was cut to break up the original flatness of the site. Units at right are townhouses; section at left is awaiting development.



COMMUNITY POOL (plan on previous page) has cabana with dressing rooms. Red tile roof is a design motif of the whole project.



WATER VIEW, seen here from a living room, was made possible by stepping back grades from edge of the bluff.







PNE-STORY HOUSES are sided with stucco, fenced with adobe brick. Roofs are shingled on one-story units to keep over-all costs down.



DRAMATIC ENTRANCE, a feature of all row houses in The Bluffs, is part of Leitch's plan to give every family a sense of individuality.



REAR PATIO is topped with wood trellis. Vertical grille, right, helps break up mass of a blank stucco wall.



DOWNHILL TOWNHOUSES, shown here from the rear, have extended fin walls and walled second-floor decks for outdoor privacy between units.



UPHILL TOWNHOUSES have decks in front of upstairs living rooms.

Some of these builders are big, others are small. Some build with panels, others don't. Some build apartments, others build tract houses, still others build custom houses. Here's how...

One lumber company supplies them all

The nine builders at right are just a random cross section of the 80 served by Davidson's Southport Lumber Co. Davidson's is the biggest lumberyard-prefabber in Indianapolis, and one of the biggest in the country. Last year it sold more than 3% of all the prefabricated apartments built in the United States, according to Home Manufacturers Assn. figures.

But Davidson's isn't concerned with becoming a factor in the national housing market, or even in one state. It owes its success to concentrating on the needs of all the builders in one metropolitan area. Almost all of Davidson's \$4.6 million in builder sales last year came from within 70 miles of its plant.

And the only reason Davidson's took up prefabbing after decades in the lumber business was to survive against encroaching prefab specialists.

Davidson's has become tough competition for prefabbers, and for lumberyards, too. Why? Because it offers both the jobsite savings of production-line components and the custom variety of the lumber dealer. It matches the prefab specialist's technology, beats his delivery schedules, and—because of far greater flexibility and more personal service—wins builders the specialists could never satisfy.

The details of Davidson's adaptable setup—its flexible approach to construction, its practical approach to service, and its future in the battle of sticks versus panels—are significant not only to other lumberyards but also to builders and home manufacturers.

To see how Davidson's serves these nine builders and others like them, turn the next page.

HIGH-VOLUME APARTMENT BUILDERS Frank and Ethan Jackson switch from prefab construction to conventional, depending on carpenters' bids.



APARTMENT CONTRACTOR Charles Pechette, left, builds for clients and for himself. He draws on Davidson's engineering assistance.

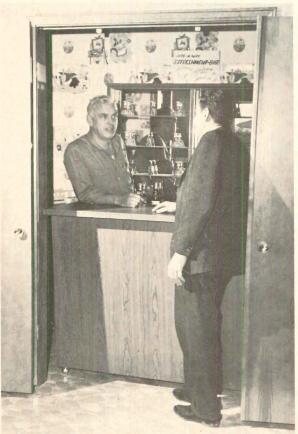


left, uses Davidson's exclusive-design house packages but insists on job-hung doors.





HOUSE AND APARTMENT BUILDER Milton Fineberg, left, ran his own prefab shop and tried packaged houses from other prefabbers. Now he deals with Davidson's, gets guaranteed price.



CUSTOM BUILDER-REALTOR Bob Stephens, left, avoids prefabbing, promotes conventional construction. His forte is built-ins like the rolling bar above. He likes Davidson's service.



HIGH-STYLE-APARTMENT BUILDER Al Mardoh is new to construction and relies on components for job precision. He features over-size balconies, antique streetlights.



CUSTOM-HOUSE BUILDER Morris Franklin sometimes uses trusses, but his market prefers conventional construction.



Bob Borns ignores component construction—even on 800-unit projects.



P.U.D. APARTMENT BUILDER Allen Sklare, right, is erecting 456 units around an artificial lake. Davidson's prefabs his rustic designs and a 40'-high clubhouse.

Davidson's flexible approach to prefab construction:

'Builders don't conform to our ways, we conform to theirs'

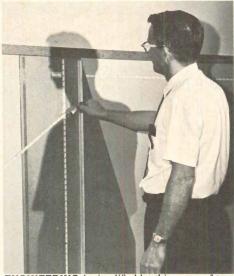
And that, in the words of General Manager Mike Boeke, is Davidson's most effective advantage over the traditional prefab specialist. The specialist starts out with a standard house package, plus an assembly line and a construction system designed especially to produce that package. Then he goes shopping for builders who will accept his package and system.

Davidson's starts out with the assembly line, but no package. Its line will prefab a house of any design and size, with any reasonable construction system. Or the line can produce any segment of a house—trusses only, walls only, or just door frames. Or Davidson's will supply a package consisting of no prefab components at all, but just sticks. And delivery to the site will be timed to coincide precisely with the builder's schedule and handling methods.

How does Davidson's accomplish all this? By keeping things simple and, therefore, flexible.



ESTIMATING is so precise that Davidson's puts a guaranteed price on component packages.



ENGINEERING is simplified by this gauge of tape measures for determining truss cutting.



LAYOUT of wall panels is done by carpenter marking stud positions on top and bottom plates.

Simple engineering and layout methods adapt to all custom prefabbing

Few of Davidson's prefabbing methods could be called sophisticated. In fact, many prefabbers might be inclined to scoff at Davidson's production setup.

But aside from a possible regrouping of its assembly-line stations—now scattered over several acres—the company isn't planning any major changes. And it goes along with simple methods like these:

Instead of taking advantage of fast unit-estimating formulas, like most efficient builders and prefabbers, Davidson's estimator (above, left) figures component costs piece by piece.

Instead of using mathematical formulas to calculate truss-member lengths and angles, Davidson's component engineer made a two-dollar gauge from a scrap of hardboard and two steel tape measures (above, center). He says it's faster and more accurate

Instead of laying out wall panels through premarked tapes prepared by an engineer, Davidson's gives the job to a good carpenter who uses a pencil and a ruler (above, right).

Greater efficiency just wouldn't make sense. Here's why:

First, and most obvious, Davidson's can convert any house or apartment plan into prefabricated components. Neither its shop nor its engineering department is locked into a system of mechanical shortcuts or standard formulas that rule out complicated designs.

Second, Davidson's long-hand estimating is so accurate that the company can guarantee the price of any custom component job. Some competitors have offered similar guarantees, but not on a consistent basis. Says Milton Fineberg, an apartment and house builder: "I'm happy to give up part of my profit for a guarantee that my costs are going to come out right."

Third, Davidson's can build complicated components that no other supplier can handle, and thereby win an entire project. Says Charles Pechette, an apartment contractor: "They were the only ones who could build the mansard roof on one of my projects, so they got the whole package—260 units." In fact, in working out Pechette's mansard trusses—complicated by a huge span—Davidson's staff contributed still more to the project by discovering that the architect had specified a flitch plate too light to carry the load.

Still another advantage of this adaptable component operation is that package size doesn't matter.



Pavidson's dest-sening component, are sold with of without want-panel packages. Builders dought more than 3,000 hort-package trusses last year.

Separate components or whole-job packages—Davidson's handles both

"We used to think we had to get the whole package to make prefabbing pay," says general manager Boeke, "but lately we've found we can sell more by settling for less." So, unlike most prefab specialists, Davidson's approaches a prefab apartment or house job in terms of component categories rather than as a components package.

For the big builder who shops for good prices and buys directly from manufacturers, Davidson's concentrates on trusses and/or wall panels. But for the small builder who needs the convenience of one-stop shopping, Davidson's provides a complete structural package.

This versatile approach to components is built into Davidson's prefab shop. The assembly line runs in two directions, so wall panels and trusses can be produced and delivered independently of one another. Wall panels are rolled out one end of the shop for loading on flatbeds or open vans; trusses are rolled out the opposite end for loading on a special truss

carrier in banded bundles (above and below).

Davidson's, being a lumberyard, can afford a more casual approach to prefabrication than a specialist can take. If a proposed job isn't feasible for prefabbing, the company's sales manager will persuade the builder to stay with conventional construction and order sticks instead of panels.

So Davidson's customers practice all degrees of prefab construction, and many don't practice it at all. At one extreme is Builder Allen Sklare, who needs two prefabbers to stay on schedule (456 contemporary apartments in 18 months). At the other extreme is Builder Bob Stephens, who won't consider trusses, to say nothing of wall panels. Reason: His electrically heated homes have 8" of insulation above ½" drywall ceilings, and Stephens is afraid 24"-o.c. trusses (versus 16"-o.c. rafters) will make the ceilings sag.

Another aspect of Davidson's versatility among builders is the way it ships.



TRUSS CARRIER speeds deliveries because it is self-dumping. Side racks tilt down at pull of a cable, and trusses drop in a stack (right).





STOCKPILED PANELS and other components are held in Davidson's yard until needed at the job. If necessary, new orders can be produced in a week

Stockpiling and close-timed deliveries let builders keep tight schedules

And these services make Davidson's a virtual shopin-the-field for apartment builders.

Orders for panels and trusses are manufactured up to six months ahead of need and stored at the lumberyard in banded units (above). These are available to a job superintendent on a few hours notice.

In fact, Davidson's delivers any stock merchandise the same day it is ordered, provided the order is entered before 9 a.m.

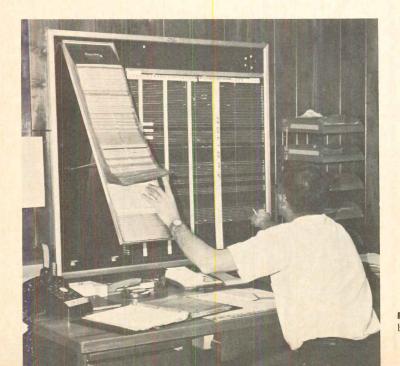
New orders for custom components can be produced and delivered in a week if the drawings have already been made. And, says Purchasing Agent Tom Campbell of Jackson Realty Co., "Even without drawings we've gotten panels out of them in three weeks." Campbell often demands this kind of service—he is running two apartment jobs and a nursing home, completing the eight-unit apartment buildings in 60 days from start to occupancy.

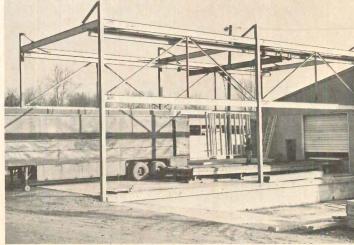
Another delivery service tailored to apartment construction is two-way truck loading. Last year

Davidson's filled in one of two loading pits and erected a gantry with a traveling hoist (below). This provides vertical loading for crane-erected jobs, eliminating the handling delays caused when panels are in wrong construction sequence in a horizontal stack. But not all of Davidson's apartment builders use cranes. Tom Campbell's supers, for example, set trusses by crane but prefer to handle panels manually. So Davidson's supplies flat loads for them.

Davidson's furnishes crane service, too. It was the first supplier in Indianapolis to offer a 42′ boom for placing trusses on the top plate of three-story buildings. The crane was mounted on a truss carrier fashioned from a cut-down auto transport. But today there are many cranes available from subcontractors in Indianapolis, so Davidson's is no longer emphasizing this service—e.g., its new truss carrier simply dumps the load on the ground (p. 97).

Because of its versatile approach to construction, Davidson's can keep abreast of its changing market.





GANTRY PLUS PIT lets Davidson's ship wall panels vertically or fla depending on whether customer prefers constructing with or without crane

PRECISE SCHEDULING is Davidson's strongest selling point. This board, made of strings and pegs, keeps up with the needs of 60 jobs.

Davidson's can gear to any new trend in buyer demand or labor conditions

And that's a critical advantage. When the company started prefabbing in the '50s, it aimed at the single-family house market and tried offering a few standard house designs in a catalog. Fortunately, the prefab shop never got locked into these designs.

Today Indianapolis is a booming apartment market. Davidson's business is now divided 50-50 between prefab and conventional housing, but more than 75% of its prefab production goes to apartments instead of houses.

Davidson's adapted to apartments so well that it consistently supplies over half the projects in Indianapolis. From last July through September, according to the Indianapolis Chamber of Commerce, 4,306,200 sq. ft. of new apartments were completed or under construction, and 2,231,300 sq. ft. of the total were Davidson's jobs.

A few Indianapolis builders have turned to packaged apartments imported from prefab specialists. But the great majority of apartments are custom designed and aimed at a specific kind of tenant.

Designs run the gamut from colonial to contemporary, but Davidson's can supply them all. Its millwork shop can be turning out colonial entrance heads and porch columns by the hundreds while the truss line is producing mansard roofs. (The quality of the colonial heads and door frames is so high that a regional apartment builder, Klingbeil, Haddox & Co., paid the extra freight to have them shipped 200 miles to a Columbus, Ohio, project.)

While prefabbing has caught on strongly among Indianapolis apartment builders, it still has a long way to go in the single-family house market. Davidson's serves many homebuilders who insist on 100%

stick construction and make it one of their strongest selling points.

Custom Builder Morris Franklin, in the medium-to-high price range, sometimes uses trusses and stressed-skin beams, but stays away from wall panels as inconsistent with his image of quality: "I'm so picky about finishing that I haul my own trim from Davidson's so every piece is perfect." Franklin also uses two-layer laminated drywall, tempered glass, and humidifiers to cut down callbacks and keep his buyer-referral rate high.

A good labor supply is the reason prefabbing has been a long time catching on in Indianapolis. Without the benefit of trusses or wall panels, Morris Franklin needs only three days to dry-in a house because he can sub the job to a 12-man framing crew with three lead men.

Even some apartment builders still find stick construction as economical as prefabbing. Low-cost-apartment Builder Bob Borns completed 16 buildings—12 to 16 units each—in ten months, using 30 carpenters and no prefabbing. "If my labor slipped or I needed more volume, I'd probably go to panels," says Borns. Jackson Realty, a long-time prefab builder, recently switched to sticks for two buildings in a project because "the carpenters were available at the right price."

But the long-term trend is toward prefabbing. Main reason: The Indianapolis unemployment rate is now less than 2%. "Laborers are becoming carpenters," says one apartment builder, "so we're better off getting our work done in a good shop."

Meanwhile, Davidson's stays flexible by splitting its business between sticks and panels.

But Davidson's flexibility doesn't rule out standard prefab packages

After practically abandoning component sales in the single-family house market to go after apartment orders, the company is now trying two new approaches to standard house packages. The aim: to regain some strength in prefab-house sales.

One approach is a modest selection of versatile lower-cost packages that could be used as vacation or year-round houses. This will probably be overshadowed by the second approach: a program of exclusive standard designs—but the builders' designs rather than Davidson's. A builder turns over his basic designs to Davidson's, which then converts them to prefab components and keeps the drawings on file. When a model is sold, Davidson's runs it through the production line with whatever modifications are called for plus the customer's choice of siding, windows, and doors. Required lead time is two weeks.

Davidson's recently sold this idea to suburban Builder Thomas Wilson of Carmel. Wilson, a conventional builder for 14 years, has switched to a component package not to increase volume but to gain extra time for interior finishing.

Wilson probably couldn't get the kind of house he needs from the average prefab specialist.

First, he demands custom variety. In his 40-acre

subdivision, he offers four \$26,000, models and a choice of eight elevations for each. Because so many of his buyers insist on tri-level designs, he has designed a tri-level that looks like a raised ranch (no break in the roof) so he can maintain a variety of elevations.

Second, Wilson wants only structural components because one of his selling points is hand finishing. His carpenters build all stairways on the job and hang their own doors.

Third, Wilson's volume is too small—22 houses a year—to interest a prefab specialist in setting up for his particular needs.

Wilson is no stranger to prefabrication. He was one of the few pioneers who tried the ill-fated Alside packaged house four years ago.

"Our subs wouldn't come in with a set price, costs got out of hand, and then the manufacturer folded," he says. "With Davidson's, the control is in my hands instead of the prefabber's." His packages are delivered in stages, starting with the subfloor a week early. To avoid delivery tie-ups, Wilson pours driveways and all flatwork at the same time his foundations are built.

In all of Davidson's builder relationships, the chief attraction for the customer is service.

Davidson's practical approach to prefab services:

'We offer close factory-field coordination, not costly aids'

Davidson's services look cheap compared with those offered by a big regional prefabber. The prefabber may offer direct financing, land planning, advertising, designing, decorating, and marketing guidance—a package of aids that may be worth \$400 to \$800 per house.

The only comparable attraction offered by Davidson's is free radio promotion. It contracts with a local radio station to operate a mobile broadcasting trailer at the weekend openings of 30 builders a year.

At one time Davidson's made an attractive service out of the heavy credit it extended to customers. Construction loans were almost impossible to get, so Davidson's would wait 90 to 120 days for payment. But the loan situation changed, and today most builders pay lumberyard bills regularly on the tenth of the month.

Customer service, however, is still essential to

Davidson's. Says Builder Bob Stephens: "Service is all the lumberyards have to offer here. Their prices don't vary as much as \$20 on a house." And a Davidson's salesman adds: "It takes just one truckload of crooked lumber to lose an apartment job after it's been sold."

So Davidson's supplies service—but not the obvious aids popularized by prefab specialists. Says another salesman: "As we see it, service is mostly doing what you said you would do." And to that end, the company makes a point of knowing exactly what is going on at each of its builders' sites every day of the week. It not only stays close to its customers' supply problems but also helps out with code and money problems by drawing on its staff's expertise and well-established local reputation.

The backbone of Davidson's service to builders is its sales staff.

Daily job-site visits by salesmen solve problems fast and prevent tie-ups

Davidson's has seven salesmen on builder accounts, and each spends most of his working hours visiting construction sites. They handle 12 to 15 accounts apiece, but manage to call on their high-volume apartment jobs an average of four days out of five. That way, they are on hand to deal with minor problems—like delivery trucks tracking mud onto a public highway—before they get out of hand. And they turn in a weekly report on the status of every builder account.

Davidson's salesmen work hand in hand with the estimating department, so they know each job thoroughly. They write a complete estimating takeoff for each new bid, except for panels and trusses. Estimat-

ing does the components takeoff, and the two lists are combined, then checked by both salesman and estimator. This gives Davidson's the accuracy to guarantee its prices.

Average annual volume for a Davidson's salesman is \$700,000, or twice that of a conventional lumber-yard salesman. And more than one man has gone over the \$1-million mark.

The builder-sales staff combines both specialists and generalists. They range from a veteran lumber-yard salesman, who doesn't like prefabrication and leans toward stick orders, to a former prefab-house salesman, who is pioneering Davidson's latest component approach to single-family housing (p. 99).

Davidson's even makes full design changes in the middle of construction

A current example is ment job in northern ceeding building, the project's architect makes a change in the components package, submitting a series of alternates to the initially agreed-upon plan. There are even four alternates for balconies. Three miles to the east, at Milton Fineberg's Cavalier apartments, Davidson's prefabbed the first two buildings with one roof style, then switched to a completely different roof when the builder saw—and didn't particularly like—the effect of the original design.

Davidson's makes a selling point of guaranteeing

to see a job through to completion. It considers midjob changes as a necessary risk. And it honors the guarantee even if it has to call on other suppliers for help. Says Al Mardoh, an apartment builder: "I like their spirit. They kept components coming to me even when they couldn't do the work. They farmed it out."

Another advantage of Davidson's accommodating service is that it lets an apartment builder switch from sticks to panels to help beat a labor slowdown. The only requirement is adequate lead time to make the drawings.

Close liaison with code officials and lenders gets jobs started faster

Davidson's code problems are relatively simple compared with those of a regional prefabber. Variations are far fewer, because 90% of its business is within 70 miles of the plant and most of that is in one

county. This lets the components shop use the same construction and materials for most of its work—medium-density fiberboard sheathing with no corner bracing, for example.

And because Davidson's supplies such a contained market, it deals repeatedly with the same code officials. So when a problem does arise, it doesn't take long to find out how to solve it. What's more, lumbermen have the advantage of a thorough schooling in framing grades and stress ratings. When Davidson's sales manager, Charles Fitzpatrick, does an estimating takeoff, he turns up engineering flaws and over-design and often ends up saving the builder money as well as heading off code problems.

Davidson's limited market range is also an advantage to builders with money problems. During the past year, its controller matched up sources of local construction financing with several builders who were stalled by tight money.

This kind of assistance grows out of Davidson's solid reputation as a progressive, 38-year-old family business. Everybody knows the founder, Ted Davidson, and his two sons, Bob and Don, who comprise top management.

Davidson's future in the battle of sticks vs. panels:

'We'll keep advancing along the line of least resistance'

That's how General Manager Boeke sums up the difference between a lumberyard-prefabber and a prefab specialist. Instead of actively promoting prefabrication for all construction, Davidson's makes it available where it's wanted and where it makes sense.

For the past three to four years, for example, the line of least resistance for prefabbers has been apartments. So Davidson's has gone in that direction strongly and neglected single-family component houses. Now, with indications of future skilled-labor shortages in the construction trades, Davidson's is laying the groundwork for more prefab house sales (p. 99).

So far the company has succeeded in being all things to all apartment and house builders, but not to all customers. It gave up on remodeling, when good workmen became scarce, and discontinued retail millwork: "Those little jobs are never right the first time," says Boeke, "and they may hold up a million-dollar project."

And despite a seemingly casual attitude toward the progress of prefabrication, Davidson's does have a vested interest in it. First, component orders result in fewer deliveries, fewer returns, and faster job payoff than stick orders. Second, common lumber has become a price football, offering cut-to-the-bone profit margins.

So Davidson's long-range future is a gradual move in the direction of components because components are becoming its most profitable way to distribute building materials. In keeping with this, the company is concentrating on its production efficiency and its builder trade, and cutting down on some unnecessary variety.

Battle plan No. 1: Push production capacity up, but keep overhead down

Davidson's problems, unlike those of many wellequipped prefab specialists, are not in selling but in finding ways to produce faster.

Its principal framing tools are a multi-cut saw, framing machine, truss machine, subcomponents nailer, and sheathing nailer. They form a fast line versatile enough to supply an unlimited variety of framing designs. Probably no single major addition could make the line any faster or more versatile. Also, Davidson's wants to avoid falling into the excessive-overhead trap that has proved the undoing of so many other prefabbers.

So these are some of the solutions the company is planning:

- 1. A new truss plant that will double the production of the existing truss machine by extending its jig and thus letting two crews build separate trusses on it at the same time.
- 2. Portable 16d nailing guns to eliminate handnailing of miscellaneous wall framing.
- 3. Night crews to load trucks for early-morning deliveries.
- 4. Extension of data processing—now used for inventory control—to handle construction orders.

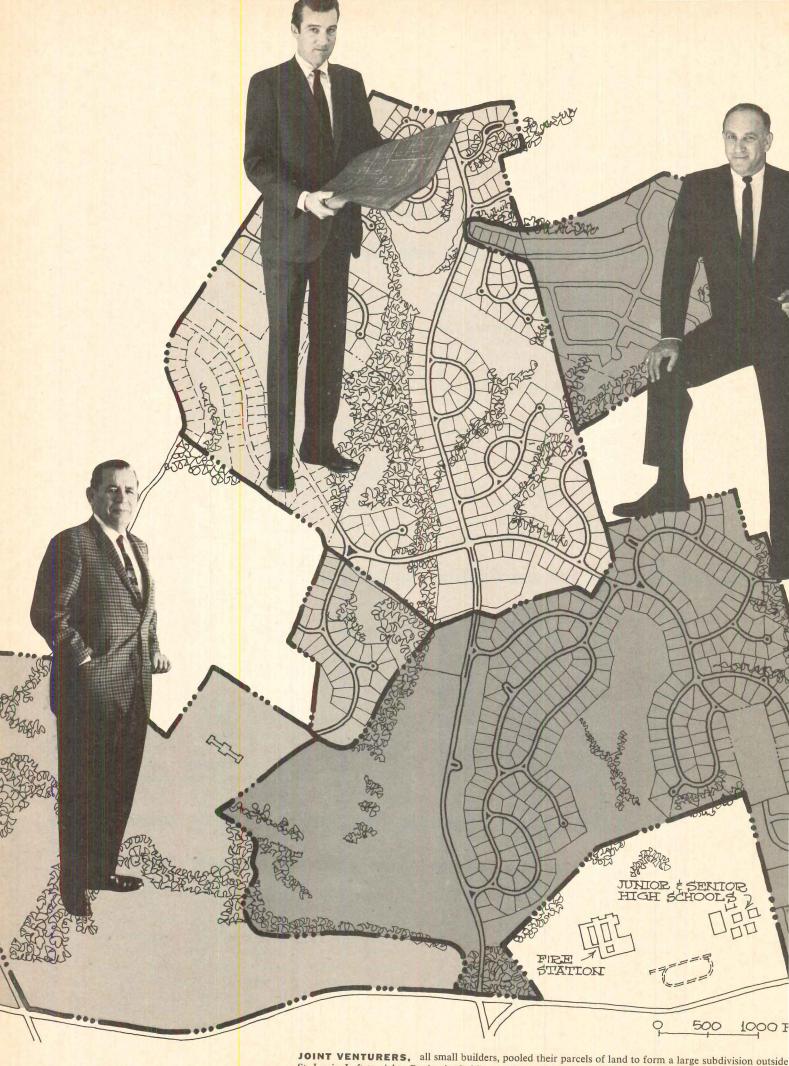
Battle plan No. 2: Find ways to standardize, but don't limit design choice

Here again, Davidson's is following the line of least resistance. When electronic data processing showed several building-product categories were not profitable enough, the company dropped them. And they included such major items as gypsumboard, kitchen cabinets, laminated cabinet tops, block, brick, and concrete.

"We bend over backwards to accommodate the customer in every way we can," says Boeke. "But there are practical limitations. We just lost a prefab apartment project, in fact, because we insisted on eliminating items [factory-applied siding and a special soffit system] that we felt were unprofitable for us to

handle. We can't offer everything, and we're not going to try."

But Davidson's doesn't want to put too-rigid limits on materials choice, either. So it is trying to combine the best of two possible worlds. An example: It will offer builders a particularly good price on two standard door units—lauan and birch—in hopes of reducing door inventory. At the same time, it will continue to offer an enormous combination of doors and trim, but will play down the variety and perhaps phase out a substantial share of it if lauan and birch do indeed become the standard for a major percentage of builder-customers.



JOINT VENTURERS. all small builders, pooled their parcels of land to form a large subdivision outside St. Louis. Left to right: Benjamin Goldberg, Thomas Shaw, and Michael Levinson. For details, see p. 107.

These three men have teamed up to solve a problem.
In this case it was land, but it could also have been financing or management. The point is that more and nore builders—especially small ones—are eyeing . . .

The case for (and against) joint ventures

There are lots of advantages to being a relatively small builder. You are reasonably independent; you can make a comfortable living; and, if you are lucky, or astute, or both, your small operation can grow into a much bigger and more profitable business.

But as a smaller builder you have proportionately bigger problems than does the larger operator. Chief among these is money. The small builder who has the financial resources to grab at a bigger opportunity is a rare bird. Personnel is also a problem. You may be a good construction man, and you may have a good salesman on your payroll. But if your growth requires a specialist in some other field, chances are you can't afford to hire him.

It's at times like these that the joint venture can pay off handsomely.

A joint venture can turn the weakest part of your company into your strong point

In most cases, it's that one weakness that kills your opportunity for growth. Here's how a joint venture can make the difference:

Let's say you need money. There may be home-town businessmen and investors with \$5,000 to \$50,000 and more to put into the right deal.

Let's say you need land. There may be land owners who want a share in a housing project, and there may be others who could be paid off in finished lots.

Let's say you need a special talent. There may be land developers and shopping-center builders who need your product—houses.

Let's say you need a zoning change. There may be other builders who need it, too. Together, in a larger subdivision, you would all have a better chance to get it.

Or let's say you simply need a vacation. A partner could take over for a week or two, and you could go away confident that things would keep running.

But in a joint venture you have to surrender something to get anything in return

And usually that something turns out to be about 50% of your profits.

This isn't as dreadful as it sounds; a successful joint venture should more than double your normal profit. Your job is to size up the venture carefully and decide if it is worth the gamble.

The key question: Will your partner (or partners) really make the promised contributions? If not, you could end up with a partner who deserts you in midproject, a partner who bickers with you during the day

and cheats you at night, or a silent partner with a big mouth.

And don't forget to be realistic about your own capabilities. If you take money from outside investors and the deal goes awry, you could be criticized all over town.

The potential problems and your safeguards against them depend largely on the kind of joint venture you form. Generally speaking, there are four basic types. For a detailed look at the advantages and disadvantages of each, turn the page.

If you want enough flexibility to be able to tackle anything from houses to office buildings—consider a

general partnership

In its simplest form, a general partnership has two equal partners. Both men run the company and share equally in the initial investment, work load, major decisions, profits, and company liability. Normally the partners draw salaries and split annual profits. But no matter how the company income is split, all the money paid to partners is taxed as ordinary personal income.

You can form a continuing company, but a one-shot deal makes more sense

There are three advantages to zeroing in on one project rather than trying to form a longer-term partnership: 1) It is easier to find a partner suited to one particular project; 2) one clearly defined project requires fewer of the difficult policy decisions which inevitably crop up in the long run; and 3) an isolated project that goes badly is relatively easy to dissolve.

Of course, the partners can stay together for other projects if their first one goes well.

Here are examples of three imaginative one-shot deals:

Apartments. The developers of Reston, a Virginia new town, have formed a general partnership with Builder Stephen Mittleman of Washington, D.C., to bolster their own crews. Reston's apartments are fully rented, and the developers want more. So they turned a site over to Mittleman after he promised to deliver 152 units this spring at guaranteed rents of \$140 to \$210. Mittleman arranged his own financing, says Reston Executive Vice President James B. Selonick.

Reston will manage the project for a 3% to 5% fee and receive a majority of the profits. For Mittleman, who has all the construction headaches, the profit margin

is still attractive because the donated site kept his investment small.

Office Buildings. A builder who prefers that his name not be used has built two offices in what he terms "smooth, clean deals." In one case, he provided seed money at interest for two builders. They built a 15,000-sq.-ft. building on their own land and received the first profits. After a cutoff point was reached, profits were split down the middle.

In a second deal, the builder joined his lot with an adjacent parcel owned by two businessmen and built a 16,000-sq.-ft. office for a nominal fee. The businessmen will receive slightly more of the profits because their lot had more frontage.

Recreation. Plans for a big recreational facility have a way of ballooning. That's what happened to Builder Joseph Helman, who together with others is developing the Village of Green Trails (see p. 107). At first, Helman wanted recreation expert Henry Olfe to handle the recreation complex by himself. But building estimates ballooned by \$50,000, so Helman and Olfe decided to take on the complex together. Helman sold the site to the joint venture at cost, arranged the financing, and built the clubhouse at cost. Olfe built the swimming pool at cost and will manage the complex without a fee. All profits from the clubhouse (which opened last month) will be divided equally.

'Continuing companies inevitably lead to one or two bosses too many'

So says one builder who had nothing but trouble after forming a general partnership with a relative, another builder, and a rich manufacturer. The four-boss company, formed in 1962, was designed to pioneer a 221d3 program in the area by building about 300 low-cost apartment units a year. But the partnership built only 247 units in the four years it lasted. What happened? The builder, who asked that his name be withheld, tells this story:

First, he had a personality clash with his relative, who was more interested in building houses. The relative agreed to sell out his interest.

Next, the other builder ran into personal money problems which quickly became everyone's problem. He took large advances and was eventually bought out.

That left the manufacturer, who was financing the venture. The manufacturer's representatives had little building experience. But because this was a general partnership, the manufacturer had a direct voice in its operation and soon forced its will on the builder.

"What could I say?" says the builder. "After all, it was their money." Against the builder's advice, the manufacturer chose to build in small towns ("they were too small"), selected some sites ("the soil was bad for building"), and finally refused to invest any more money ("we needed more units to turn a profit"). In 1966 the partnership was liquidated at a loss.

Builders who know say: 'Above all, choose your partners with great care'

Says Reston Vice President Selonick: "A general partnership is not the time to get to know a new man." Reston officials knew Builder Mittleman for a year before they suggested the apartment joint venture. Even then, they took three more months to work out the details.

Says another builder: "It is not enough to know a partner socially. You have to know his work habits. He may be a different man in the office."

And a third builder stresses the importance of having a partner you can trust "It's easy to have the right project but the wrong partner. For example, one of my old partners quietly formed a rival joint ven ture while he was supposed to be in business with me."

How to avoid being cheated: A victim offers some suggestions

The victim, who asked to remain anonymous, learned a bitter lesson about joint venturing: It is tough to catch a chiseling partner.

From 1962 to 1964, the builder financed a partner in return for half of a subdivision's profits—and the partner stole at least \$45,000. The modus operandi: The partner submitted the same subcontractor bills twice, the builder unwittingly paid twice, and the partner kept one of

the checks and gave the other to the sub.

The builder finally caught on and prosecuted, and his partner was found guilty of uttering and publishing, a form of fraud. Since then the builder has established these controls:

1. The joint venture's assets, such as land and banking accounts, are held under the builder's name only. "That way," says the builder, "my partner can't skip town with anything."

2. The builder countersigns all checks, including those paid to subcontractors.

3. A duplicate set of job costs is maintained by the builder.

Finally, the builder retains a veto over all the partner's major decisions. And when he finances a partner, he charges about 10% interest on his money. "If the partner has to pay interest," says the builder, "he won't borrow any more than he really needs."

f you want to build long-range projects such as

partments for investment—consider a

imited partnership

s prime example is publicity-shy Multicon f Columbus, Ohio, which in six years has sed a string of limited partnerships to ecome one of the nation's largest gardenpartment builders. The company has built ,000 units in 17 cities by attracting equity apital from 100 different silent partners. and it has never had a losing deal.

Granted, there are few small builders who want to get as big as Multicon. But wery builder who wants to grow at all an profit from Multicon's story because is a textbook case on how to attract avestors.

low to make limited partnerships go: uit your project to your investor

Multicon works with four types of inestors, each of which looks for something ifferent in a deal. For example: Small exestors welcome a steady cash flow; icher men look for tax writeoffs from dereciation; building corporations want a calance between depreciation and cash low; and other corporations need heavy profits.

Multicon's youthful president, Peter H. Edwards, has learned how to suit each expression. He understands limited partner-hips and the variety of incomes they offer; he studies the tax advantages of each leal; and he always offers a safe deal.

Edwards learned early that limited partnerships are ideal for widespread apartnent developments. First, such partnerships protect the investor by limiting his iability. Although as many as 25 partners may invest in a big project, each is liable only for his investment. Second, they project the builder by depriving the outside partners of a direct voice in the venture; all the partners are silent, by law. And

third, the return on an investment can come in many forms: It can be ordinary income, depreciation which lowers personal or corporate income taxes, or a capital gain on the sale of the project.

Edwards sizes up each deal carefully before he approaches a particular group of investors. "We always prepare a detailed projection of profits and losses," says Edwards. "By studying that, we know the kind of income the project promises and therefore what investors to approach."

In all cases, Edwards offers carefully screened deals. "We never take a cent from an investor," says Edwards, "until a lot of people have studied the project and we are ready to break ground." Here's how Edwards checks out a project:

The study usually begins when Edwards' employees option a site. They survey the neighborhood, and, if the city is new to Multicon, the survey may take as long as eight months. If the deal still looks good, Multicon arranges final zoning and financing.

At this point, Multicon draws up the detailed profit and loss projections to see which investors to woo.

How to attract anywhere from \$5,000 to \$50,000 from home-town investors

In every town there are individuals looking for good investments: professional men such as doctors and lawyers as well as businessmen. Their annual incomes divide them into two distinct types—the small investor and the richer investor—and each has different needs. Here's how Edwards sizes up each type:

A small investor has about a \$25,000 income and about \$5,000 to invest. He looks at an apartment project as a way to boost his income through both cash flow

and the eventual sale of the project. (Also, he takes pride in a handsome project.)

Typically, Multicon will bring eight small investors together to get enough equity money to build, say, 112 units. These investors might share in 35% of the profits and depreciation, depending on their individual investments.

Working with small investors has some disadvantages, says Edwards. "It takes time and patience to get eight men—and their wives—together at once. Someone always backs out at the last minute."

A richer investor has an income of \$65,000 and up, plus about \$30,000 to invest. He wants a big project that will throw off depreciation and losses for at least six years, so he can write them off his high personal income tax.

Multicon might offer two rich investors 25% of a project, and in some cases, even more.

"You have to give up a lot to keep the rich boys interested," says Edwards.

How to attract big corporations from inside or outside the housing industry

Only a big operator such as Multicon can swing enough weight to attract big-company investors, and even Multicon often has trouble. Says Edwards: "Sometimes we thought we had excellent entrees, but we were treated very coldly." Here's how Edwards sizes up corporations:

A building-oriented corporation may possibly be diversifying into lighter construction. Such a company can put up lots of money for a big deal; for example, Uris Buildings Corp., a New York office builder, is a 50% partner in a \$24-million Atlanta project. But, says Edwards, there is a big disadvantage: "These companies drive hard bargains."

Other corporations in, say, oil or insurance, want the kind of big profits that look good to stockholders. These deals are tough to find, and it is even tougher to find a willing company. Says Edwards: "Some would rather pump their money back into their own businesses. Others either fear building or are sure they could form their own development company."

Unless you plan several projects, be wary of limited partnerships

Limited partnerships don't make much sense for one-at-a-time apartment builders.* Here's why:

It takes too much money to get just one or two projects rolling. Each partnership agreement must be written by a

just stner- f

good tax lawyer; otherwise the builder could find himself paying taxes he never heard of. And expert lawyers are expensive. One builder says he paid \$10,000 for his first standard 50-page agreement.

Small apartment builders will have difficulty attracting big investors, be they rich individuals or corporations. That leaves only small home-town investors.

And, according to Multicon's president, Peter H. Edwards, 1967 will not be a good year to try and attract the small investor.

"The small guy is pulling in his horns," says Edwards. "In many cases he has taken heavy paper losses in the stock market, and he doesn't want to sell out until prices go up."

^{*} For tax reasons, limited partnerships make no sense at all for house builders.

If you want to build more houses without becoming

undercapitalized—consider a

corporation

It is no secret that more and more homebuyers want to live in large subdivisions that have a community look. And it is no secret that with his limited capital, builder can go bankrupt trying to such a subdivision. So he may find himself trapped. He can't grow without building and he can't build without capital.

"The trend toward large subdivisions will continue. That's why more builders will be turning to investor corporations," says Builder Matt M. Jetton, president of Tampa's Sunstate Builders Inc. His stockholders raised \$350,000 to form Sunstate.

According to one estimate, roughly 35% of the nation's 40,000 building companies are incorporated. But that is a misleading figure. Most of these corporations are tight family companies, with wives and relatives holding all stock; they were thrown together to shield the builder from personal liability and taxes.

A corporation with a functioning board of directors, such as the one formed by Jetton, is more than a shield. The stockholders, who are usually local businessmen, provide investment capital which can be used for immediate company expansion.

Here's what a typical small-business corporation looks like:

It has ten or 20 home-town stockholders who elect some members to the board of directors. The builder, who probably controls a majority of the stock, runs the company's day to day operation as he normally would. However, once a month he meets with the board and asks for its advice and consent on major decisions: e.g., whether to open a new subdivision or to build new model houses. The builder's annual salary is set by the board, and it is taxed as personal income only. If the company has a good year, the board may decide to issue stock dividends. And the stockholders can sell their shares to others at any time.

Corporations are ideal for building houses—but not for all house builders

Under the best circumstances, a corporation similar to Jetton's can give a home-builder working capital, freedom from direct liability, and tax advantages.*

But corporations don't suit every builder, says Jetton, who has been president of his own successful corporation for the past three years. According to Jetton, a builder considering a corporation should meet three basic requirements:

- 1. He should have a well-rounded staff that can handle large projects. Investors, of course, want a growth company that tackles big subdivisions and so pays big stock dividends. If a builder lacks the desire or the staff to take bold action, he shouldn't consider luring investors into a corporation.
- 2. He should have the complete confidence of his board of directors. Doubts lead to second-guessing, and eventually to chaos. The builder should be able to establish good relations from the beginning if he has a past record of steady growth, and if he has a sizable personal investment in the corporation.
- 3. A builder must be willing to take advice. The board has a direct voice in every major decision, and there are many autocratic builders who could never get used to such a democratic business approach.

You can form a building corporation by attracting only small investors

That's what Jetton did, and he did it in 90 days. Here's how:

The story begins in 1952 when Jetton was put in charge of a 40-lot subdivision by his employer Paul H. Smith of Tampa, a heavy-construction builder. Jetton built up the house company, and in 1959 he tackled a 300-acre subdivision near Tampa called Carrollwood. There were early troubles, but Jetton got the handsome lake community rolling in 1962. Then it quickly became one of the outstanding subdivisions in the country.

That December, Jetton asked if he might buy a "substantial participation" in the house company. The Smith family said no, and Jetton decided to go elsewhere. But some friends, particularly two wealthy businessmen, suggested they buy the house company. The Smith family was receptive, but set the price at \$350,000—to be delivered in 90 days.

Faced with the deadline, Jetton went to the people he knew best—his employees and his residents. He took a couple of weeks to write a 50-page booklet describing the company's financial picture and future plans. Then, in a series of informa half-hour talks with each potential investor Jetton stressed that Sunstate Builders Inc. would be a growth company. That was the clincher. Very few of the persons Jettor spoke to decided against investing, though a \$5,000 minimum was set.

Jetton's closed corporation reached it legal limit of 25 stockholders, including five employees, three college professors, an attorney, and local businessmen (sixteen of them live in Carrollwood). They then owned a company valued at \$828,000 according to objective appraisals.

The corporation issued the investor 125,000 preferred shares and 225,000 common shares, all at a dollar per share Jetton says the common shares have doubled in value to \$2. But in order to pay common dividends, the board must first repurchase the preferred stock at \$1.10 a share. Then common stock dividends can be voted by the board. So far the board has done neither. Of course Jetton draws an annual salary.

A board of directors can help or hurt; a lot depends on the builder

Jetton says without reservation that his board has consistently helped him make the right decisions. And he adds that he learned a valuable lesson: "It is good sens to work with the board—and nonsense to fight it."

Jetton could fight if he wanted to. H is the majority stockholder, and right now he controls four of the board's seven seats. But, he says, "I'm blessed with an interested and astute group of businessmen of the board. What builder wouldn't want the advantage of their collective business experience on major decisions?"

Jetton says the board's advice is sound "On two occasions they talked me out of buying more land," says Jetton. "Lookin back on it, I know they were right bot times."

Also, Jetton says he thinks through hown decisions more carefully than he not mally would, because he knows he may well have to explain each move to the board. "It keeps me prudent."

There are other advantages too. "A coporation has order, organization. I donget excited phone calls from my investor as I might in an informal joint venture. In there are any questions, they are discussed at the board meetings. Furthermore, each stockholder is a salesman for Carrollwood One man has brought me five buyers. A in all, about 90% of my sales originate from referrals, so those extra 25 salesme make a big difference."

Jetton was asked to describe the disac vantages of corporations. "I don't know of any," he said.

^{*}Under Subchapter S of the Internal Revenue Code, corporate dividends can be paid directly to individuals without taxation at corporation rates. The individual pays only personal income tax on the money. Without Subchapter S, the dividend would be subject to both taxes. To qualify for Subchapter S, a corporation must issue only one class of stock and have no more than 10 stockholders. Jetton's corporation doesn't qualify.

If you and your friends are small builders

who aren't getting any bigger alone—consider a

cooperative venture

Small builders are more often than not ocked in deadly competition with other builders their own size. And as long as they fight each other with 40- to 80-lot subdivisions, the giants who produce large, well-planned projects need hardly give them a second thought.

But if some of these small builders cooperate rather than compete, things can be different. By pooling their land and their talents, they can give the big builder a real run for his money.

Many cooperative ventures involve small builders and developers (see below), and a place can sometimes be found for such others as lumberyards or farmers. But the most promising ventures from a small builder's viewpoint are formed by builders alone.

Three building companies in St. Louis, for example, have provided a model of cooperation by teaming up to develop the largest subdivision ever recorded in Missouri—more than 1,000 acres. Before ground was broken at The Village of Green Trails two years ago, the largest of the builders had rarely started more than 80 houses, and the smallest had started his first six houses in 1961.

Case study: Three small builders team up to fight a zoning battle

In 1962, as builders picked up land options in the sparsely populated but promising southwest suburbs of St. Louis, zoning problems began to crop up. Late in

the year, a slate of County Commissioners was elected on a platform of ending urban sprawl.

Builder Michael Levinson called a meeting of the 12 homebuilders who held property in the area. "We had a common problem," says Levinson. "The land was zoned for one-acre lots, and we all wanted it rezoned. But we knew the Commissioners would be reluctant to chop it up into smaller lots."

After a series of meetings, Levinson's company and two others decided to pool their land into one subdivision, hire a land engineer, and plan an imaginative cluster development that even the Commissioners couldn't resist.

The builders lost the zoning battle, but they stayed together anyway

The cluster plan was excellent. But from a political viewpoint, the Commissioners had no choice; they rejected it.

The three men—Levinson, Benjamin Goldberg, and Thomas Shaw (plus their partners)—then submitted an alternate plan that complied with the one-acre zoning. Says Levinson: "We agreed to share common costs, but keep our profits separate."

The cooperative setup gave the three builders these advantages:

1. They could develop a bigger subdivision. For example, the engineer did the preliminary work free after he was promised the whole job. And by sharing costs,

the builders paid for a long, east-west road that opened up the whole project. Each was assessed according to the number of lots he owned.

- 2. They could develop a more attractive subdivision. Levinson built a recreation center and a golf course, and the others will build a shopping center, lake, and school. Adjacent land was swapped to eliminate odd-shaped lots where separately owned parcels met.
- 3. They could eliminate some competition. Each builder has a separate market: Shaw will build \$50,000-and-up houses, Goldberg, \$40,000 to \$50,000, and Levinson, \$30,000 to \$40,000. And Levinson sold Shaw a strip of lots so buyers wouldn't have to drive past his lower-priced houses to reach Shaw's higher-priced ones.
- 4. Finally, though they are together, they are not wholly dependent on each other. They don't share profits or liability. And they can even ignore the house-price agreement if they aren't selling enough houses. The reasoning: It is better to have all successful builders in the project rather than some bankrupt ones.

Yet, there is a joint problem—only one builder is doing well so far

Levinson has sold 150 houses, Shaw has sold a handful of houses and 30 lots, and Goldberg hasn't broken ground. And until all three are booming, the project can't be well-rounded enough to attract the wide range of buyers it was planned for.

Actually, Levinson's success is holding back the others. He builds an excellent, spacious house for under \$40,000, so he can undersell the others. But this spring, Levinson will concentrate on the \$30,000 market. This shift may give the other two builders a chance to get rolling, though Levinson will still build some big houses.

A builder with \$6,000 can join a landowner and outdo big builders

This unusual opportunity is being offered to small builders in a new 360-home development in Danville, Calif. And the company making the offer—Filper Corp.—is, of all things, a food-packing concern. Here's how the deal works:

Filper will give the small builder a few finished lots for model and speculative houses. Until each house is completed, builders pay nothing for model lots and only half-price for spec lots. This amounts to 100% financing, because the builders' construction loans will more than cover the lot downpayments.

Result: A builder needs only \$6,000 to capitalize his own building operation and start growing.

and start growing.

What's more, Filper is putting so many extras into the subdivision that the small builders should be able to compete

successfully with bigger operators. The company will spend \$700,000 just for recreation facilities and parks. Altogether, according to Builder Harold W. Smith (who plans to join the project in time for its spring opening), Filper plans to spend "the better part of \$2 million" on the development.

Has Filper Corp. gone mad? Should the Filper family have stayed in the food-packing business?

Not at all, says Builder Smith. "The Filpers want two things: a handsome subdivision and enough families to support a shopping center they will build in five years. By working with small builders they can get both. Small builders won't balk at tight quality control, and, thanks to the lot subordinations, they can build plenty of houses at good

prices. With all that recreation, the houses will sell themselves."

This prognostication is based on experience. In the middle 1950s, Smith joined Developer Don Rheem in a huge 1,800-acre project in Rheem Valley. Smith built and sold the houses, and Rheem developed the land, supplied finished lots free, and provided the financing. Profits were split evenly.

ing. Profits were split evenly.

"We didn't even use construction loans," says Smith. "Rheem set up a bank account and we started writing checks."

Today, the Rheem Valley project is booming, and Rheem has the shopping center and apartments he planned for. As for Smith, he went into the Valley a 15-house builder and came out five times as big.



This is Mrs. Florence Scott, a 62-year-old widow, whose monthly income is less than \$110. She is typical of a group of buyers who have given a Detroit builder a volume of . . .

150 sales a year without any mortgages or interim loans

And it's not a one-time volume either. Over the past 12 years, Builder James Babcock and his brother, Charles, have built more than 1,000 co-op apartments priced from \$10,000 to \$14,500—and sold them all for cash. Their buyers are middleaged or older, and 80% of them are

This almost-ignored market is not peculiar to Detroit; it exists in every city. There are 35 million Americans over 55 and another 22 million from 45 to 54; there are 81/2 million widows in the country, 40% of whom are under 65. And even at 65, a widow can expect statistically to live another 15 to 20 years.

Many older people face two problems that all-cash co-op apartments solve

First, they probably live in a house that is much too big for their needs. Their families are grown and gone, and housekeeping, gardening, and general upkeep are difficult or impossible.

Second, their incomes are low and tend to be fixed. Social Security, pensions, interest on small savings, and sometimes dividend checks make up their usual income. Taxes and the high operating and repair costs of the big old house make a crippling dent in their budgets. Says Jim Babcock: "I've seen high housing costs affect how much they had to eat."

And yet, they tend to cling to the house as their one security in an uncertain future. For 30 years, the husband has been telling the wife, "If we can just get the house paid off, we won't have to worry about our old age." In fact, fear of change is the biggest objection Babcock must overcome.

But these people do have one solid asset: capital. Their equity in their old house, plus perhaps a life-insurance settlement, permits them to pay cash for an apartment as long as this capital outlay enables them to achieve the low monthly housing costs combined with the security of ownership that they demand.

This special market also offers builders some special advantages

The Babcocks, for example, have found five benefits in selling co-op units for cash:

1. They are not dependent on fluctuations in the mortgage-money market. High discounts and tight money do not affect their sales, except indirectly in making it more difficult for buyers to sell their old

And because the Babcocks don't have to deal with lenders or federal agencies, they save time and paperwork. But, Jim Babcock notes, he urges his buyers to oversee construction of their building, and "sometimes this can slow things more than FHA inspections, but it is worthwhile because of the confidence it builds in the buyers.' One measure of this confidence is that his co-ops have never hired their own agents to check on plans and specifications.

2. They need no construction financing The Babcocks' only capital investment is for the buying, and sometimes improving of land. The co-op buyers finance construction through regular payments a specified building stages.

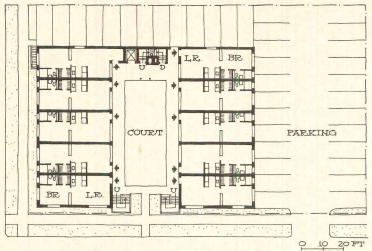
Every buyer puts down \$500 when he signs his purchase agreement. Then he has a ten-day right-of-withdrawal period during which he can have his attorney look over all purchase documents.

Then the Babcocks put the free and clear land into the co-operative-to as sure the buyers that they will not lose money through possible nonperformance by the builder-and sign a contract to erect the building. When construction starts, each buyer makes a second pay ment—this time of \$1,000. From then on the buyers' payments closely follow the construction payouts to subs and suppliers so neither Babcock nor the co-op has to borrow construction money.

- 3. They can use marginal or by-passed sites. The Babcocks' buyers have specia location requirements (see below), which often make it feasible to build on sites in an older neighborhood, on a busy artery or in the midst of commercial property. A typical site—say 250' wide and 120' deep -might be a former used-car lot, a vacan piece of commercial land, or an awkwardly shaped residential site.
- 4. They can build up a steady income from management fees. Although the Bab cocks charge each apartment owner only \$2 a month for management services, their volume on 1,000 units now shows a profit They still manage every apartment they've built except one nine-unit building man aged by one of the owners.
 - 5. They can earn brokerage fees or

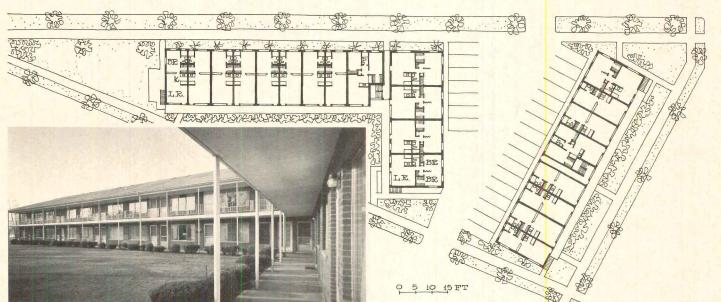
continue

These co-ops show how Jim Babcock capitalized on three problem sites





CONSTRICTED SITE, only 77' deep, accommodates 40 units on four stories. Glass stairwells flanking interior court provide impressive entrance.



TRIANGULAR SITE, in residential neighborhood, would have yielded few single-family lots, but was ample for 42 one- and two-bedroom apartments.



BOXED-IN SITE, flanked by stores, gains privacy from stairwells at both ends of building that block view of (and from) storefronts.

apartment resales. Last year, for example, Jim Babcock resold 40 co-op apartments. His sales fee was approximately 6% on each. And this extra income of more than \$20,000 called for little effort on his part because he has always had a waiting list of buyers for vacant units.

In fact, the easy marketability of the Babcocks' co-op units has been one of the biggest factors in their sales. Buyers are assured that they can resell at any time. And because so many buyers are elderly, this ease of liquidity appeals not only to them but also to their heirs, their attorneys, and the executors of their estates. Says Jim Babcock: "Some of my best references come from attorneys whose clients have lived happily in one of our co-ops, then sold at a profit when they wanted to move."

The Babcocks avoid being saddled with unsold apartments in two ways: by preselling and by keeping each co-op to a manageable size.

They don't start construction until a building is 90% sold. As a result, they have found themselves with unsold units on only a few occasions. Jim Babcock warns: "If you fail to sell out before a building is completed, you have to put up the construction payments for each unsold apartment and pay the maintenance charges every month until an owner takes over."

Each Babcock co-op is kept to less than 40 units (20 is optimum), even if a large site must be broken up into two or more separate co-ops in separate buildings. So each building can be started as soon as it is 90% sold, and the Babcocks don't have to wait until they've sold an entire project, which might involve as many as 200 apartments.

Buyers in the special all-cash co-op market have special requirements

Items

1. They put a premium on location but not for the same reasons as other buyers and renters. Says Charles Babcock: "Many of these people do not drive. So, first of all, they want to stay in the same general neighborhood in which they have always lived—close to their old friends, their church, and their long-time doctor, dentist, hairdresser, or butcher. Secondly, they want convenient transportation-right at their front door if possible. Even the noise of buses is preferable to the lack of them. And they don't mind busy streets because they like to watch the coming and going of people. One of our most popular projects was directly opposite a retail nursery with heavy weekend traffic."

2. They strongly prefer one-bedroom apartments to two-bedroom and efficiency units. The Babcocks build no efficiencies. But two-bedroom apartments account for 20% of the units in their recent projects. They included the larger units to spread their rising land and development costs. And they soon found that a minority of buyers was willing to pay a good premium for more space: A typical 800-sq.-ft., two-bedroom unit sells for \$14,500, a typical 600-sq.-ft. one-bedroom unit for \$12,000.

Depending on zoning, land cost, and property size, the Babcocks have built one-, two-, three-, and four-story buildings. Single-story buildings are most wanted, but only rarely will land costs allow them.

3. They want low and predictable housing costs to match their low and fixed incomes. And that's what the Babcocks give them: Monthly charges for taxes, heat, water, maintenance, and management are only \$30 to \$35.

As co-op managers, the Babcocks prepare an annual budget, present it to the members for approval, and then contract out all maintenance in the co-op's name.

Simple jobs like grass cutting and snow shoveling are farmed out to neighborhood youths for a fixed fee. Plumbing, heating, and electrical maintenance are on a service-call basis (repairs within individual apartments are the owners' responsibility). No project is large enough to require a full-time resident superintendent.

Construction specifications are aimed at operating economy, even if they mean higher first costs. To hold down heating bills, the second largest budget item (behind taxes), the Babcocks put full-thick insulation in exterior walls, 6" insulation in ceilings, and double glazing in windows. They also install hot-water baseboard heating with individual controls, marble window sills that need no repainting, built-in telephone outlets, and built-in television antennas.

- 4. They are particularly sensitive to noise from neighboring apartments. To reduce sound transmission, the Babcocks use solid-block or staggered-stud walls between apartments. They also pour 2" of lightweight concrete over subflooring of upperfloor units. Says Jim, "We used to top the concrete with flooring, but we found that people then would not install carpeting. Now that the floors are unfinished, everyone puts in carpeting, and we have no noise problem."
- 5. They require less parking space than most apartment residents. And Jim Babcock has gotten several exceptions from local parking-space requirements by showing that these older people, especially the

women, have fewer cars than the usual apartment buyer or renter. In some in-city projects, he has provided less than one space per apartment. But on suburban sites beyond the city transportation system, buyers tend to be younger and to have higher incomes, so he has to provide the normal 1½ to 2 parking spaces per unit

6. They demand a special brand of attention by the builder. Personal contact with the builder is an absolute essential. Buyers insist on dealing with the builder himself, and can't be shunted off to members of his staff.

Because of their continuing management role, the Babcocks often have to make repairs or correct deficiencies far beyond a normal guarantee period. Anticipating this, they include the costs in their margin of profit.

They must also respond immediately to complaints. Both brothers are on call for 24 hours a day for emergencies such as heating and power failures or possibly a late-at-night lockout.

Even a resident's personal problems are part of the franchise. Says Jim Babcock: "I must be a sympathetic listener to complaints that have nothing to do with housing. Our success depends heavily on our buyers' happiness, and that happiness may depend on someone listening to their troubles."

But, oddly enough, an apartment boom can pinch this special market. And Detroit, where multi-family housing has been booming for four years, is a prime example. The boom has spurred builder competition for even marginal sites and brought on a labor shortage that has led to higher bids by subcontractors.

Says Jim Babcock: "It sounds screwy, but we were doing better when the city housing volume was down."

Rising land and labor costs have forced the Babcocks to raise their prices by more than 20% (from \$10,000 to \$12,500 for their basic one-bedroom units). And many of the 250 prospects on their waiting list can now afford only the resales of older lower-priced units.

Also because of higher costs, the brothers are exploring a higher-income market with the same general needs. Their latest project is priced from \$14,500 to \$19,600 on a prime suburban site (the raw land cost \$2,300 per apartment). Typical buyers will be couples, with the husband approaching retirement, or widows with substantial incomes. But just as with the Babcocks' low-income buyers, the strongest selling point will be the low fixed housing cost—in this case, \$40 to \$45 a month.



Photo: Action Photo

NAHB's 1967 president: a driving innovator with ambitious goals for the housing industry

"NAHB will accomplish great things during the coming year," says Leon Weiner (above), but this is not as immodest as it sounds, coming from the homebuilders' new president.

"During 1967," he adds, "we will be reaping the rewards of some great past efforts."

He is convinced that the past few years have seen groundwork laid for the housing industry—and NAHB—to come to full maturity. He praises his predecessors unreservedly for changing homebuilding from an industry that could only react to conditions to one that can initiate changes.

Weiner's main objective is to use all the weight of the NAHB presidency to outline ambitious—but realistic—goals for homebuilding and to attack every impediment

to their achievement.

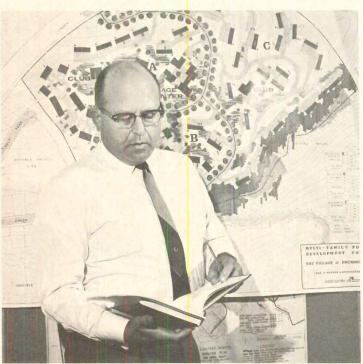
No one should underestimate Weiner's courage and determination or his ability to charm and persuade. A lot of people, including his NAHB associates, have seen him sugary and seen him vinegary, have watched him smile and watched him frown. He has won some battles and he has lost some, but his overall track record is impressive.

Some of his losing fights have been in support of new government housing legislation that some of his fellow NAHB members called "socialistic" or worse. A prime example was his backing of the 1964 proposal for FHA land-loan insurance and newtown legislation. But on his side were many NAHB old-timers who frankly admitted they thought FHA itself was socialistic when it





WEINER AT HOME with his wife, Helen, is the relaxed countryman surrounded by dogs and horses or caring for his fine handguns.





WEINER AT WORK reviews his new planned community (left), or shows his urban-renewal housing to a local official (right).







WEINER AT NAHB can be a smiling vote-getter (left), an intent chairman (center, with President Larry Blackmon), or a forceful speaker (right).

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as first proposed but later changed their ninds. After an impassioned, strident deate, the NAHB board of directors turned own endorsement by one vote.

Such defeats have been rare. More typial was Weiner's fight to get NAHB to nderwrite the start-up costs of a thorough and-use study. His recommendation that ne board put up \$5,000 was not even reorted out by the finance committee.

Undismayed, Weiner piled up informaon, much of it hard to come by at that me, on new approaches to land use. He dded hard figures showing how these unried ideas could reduce builders' developnent costs. When he took the floor at the ext board meeting, he was armed with nassailable arguments that ranged from ne purely esthetic to "belly interest" apeals. This time he got his \$5,000, and AHB has been a leader in developing landlanning ideas ever since.

On his own home grounds, Wilmington, Del., Weiner has been equally dogged in attling the status quo when he has felt he vas being prevented from doing something n the public interest.

In 1957, in order to build a low-cost ousing development (\$11,990 to \$13,-90), he asked the county zoning commision to reduce row-house frontage from 1' to 16' and 18'. He had to have the arrower frontage to meet his selling price. It took two years, a series of hearings,

ppeals from adverse decisions, and a howdown court suit, but in the end Veiner got the change he sought. The esulting housing (H&H, Aug. '59) not only filled an ignored market void but lso won Weiner's organization a hatful of planning and architectural awards.

Interestingly enough, this 261-house community (called Oakmont) was the first penly announced open-housing developnent in Delaware.

In fact, Weiner's efforts, and those of is fellow members of the Delaware HBA, lave made north Delaware one of the ew areas, North or South, where a Jegro family's opportunity to buy new lousing is limited only by its ability to fford the price. Though neither the state for the city has a fair-housing law, the Delaware HBA has endorsed open occuancy-and its members have implenented that endorsement without outside pressure. More than 20 new subdivisions n the Wilmington area now include one or more non-white families.

If you strong-arm Leon Weiner, the reults are predictably explosive; he'll fight ou to the finish. Wilmington found that out in 1961, when he was asked to make in under-the-table cash payment to insure igainst opposition to his bid for some irban-renewal land. Although one of the wo bribe-seekers was a city councilman, Neiner threw them out and filed a complaint. Both men were convicted by a jury. P.S.: Weiner won the 20-acre site, where he is now completing the first 30 units.

NAHB knows him as a fighter, too. In 1963 he survived a four-man race for vice president-secretary of the association—the first rung on the ladder to the presidency. He defeated Kimball Hill of Chicago by only 13 votes. Two years later, in one of NAHB's rare election revolts, the ladder was almost kicked from under him. Less than 60 days before the convention, a coalition drawing most of its strength from the Midwest and southern California united behind Detroit's popular and respected Edward W. (Ted) Pratt. Weiner and his rock-solid supporters organized a delegation-by-delegation, vote-by-vote campaign that gave them a clear-cut 334-262 victory. No grudge holder, Weiner remains a Ted Pratt admirer, and last month his erstwhile rival was one of his first executive committee appointments.

Weiner hasn't worked and fought so hard to reach the presidency in order to spend 12 months as a ceremonial figurehead collecting honorary gavels and keys to cities. He has some definite goals for NAHB and for the housing industry and hopes to see these goals achieved.

"But," he says, "I am not interested in some sort of a numbers game. You know, where the government would say we need 2 million housing units a year, and then when we would only complete 1.8 million, they would say, 'You didn't reach the goal, so we will build 200,000 public housing units to make up the difference.'

"Rather, if private housing did fail to reach an agreed goal, we would find out why, pinpoint the impediments, then remove them so we could hit the goal."

What impediments does he see? Weiner lists the following: 1) an uneven flow of mortgage funds, 2) unfair zoning ordinances and other obstacles to better land use, 3) restrictive building codes, 4) shortages of building labor, and 5) resistance to innovation by builders, communities, and the public itself.

Right behind his broad housing goals, Weiner puts three long-advocated NAHB proposals: 1) a central mortgage facility, 2) a larger share of mortgage investment by contractual funds (pension, retirement, welfare, etc.), and 3) better marketing practices and presentation of housing to the people who buy it.

Weiner regrets all splintering of housing efforts. He mentions the large community builders, home manufacturers, apartment builders, and urban-renewal groups as examples of special housing interests for whom NAHB should have a more important

Few housing problems are strange to Weiner. Rehabilitation? He bought, modernized, and re-sold 150 old houses. Urban renewal? He has tackled it in Wilmington and Philadelphia. Planned unit developments? He has one of the first in the country. Co-operation with other builders? He and three other builders are developing a 1,100-acre community. Minority housing? He has built it. Low-cost, mediumcost, or high-cost housing? He has built it all.

His roots in housing go back three generations to a grandfather who owned a farm in southern New Jersey and built houses on the side. Weiner has spent almost all of his life close to the banks of the Delaware River, and all of his building has been within 25 miles of Wilmington.

He lives just over the Pennsylvania line in a 225-year-old stone house on a 60acre farm, where he is surrounded by an inventory of dogs, cats, and horses that changes constantly because neither Leon nor his wife can turn down a gift horse (or a stray cat).

He married Helen Weightman in 1950. This slim, attractive woman, with her black hair, crackling dark eyes, and horsewoman's wrists of steel, both shows and hunts her stable of thoroughbreds. Leon watches and admires, but prefers to pilot his sports-fisherman boat rather than follow the hounds.

His friends know Leon Weiner best as the gentleman farmer in the windbreaker, talking politics in front of a blazing fire in his comfortable 18th-century keeping room or hosting a dinner group at the nearby Chadd's Ford Inn.

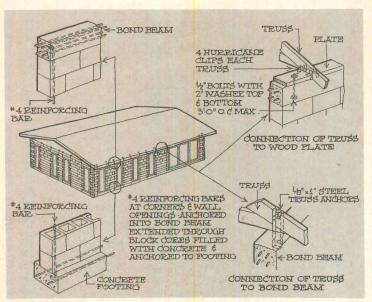
Regardless of how much of his program comes to fulfillment in 1967, housing will know Leon Weiner is around.

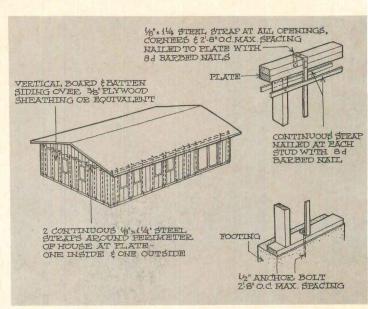
Photo: Action Photo











REINFORCING METHODS for tornado-resistant houses involve two-way rods for concrete-block construction, left, and steel bands for wood framing, righ

Tornado-proof houses: You can build one for an extra \$50 to \$200

But if the house is wood instead of concrete block, the cost may run higher than \$200. The extra money is not for heavier materials, but for steel reinforcing to tie roofs to foundations.

The techniques were determined by a team of FHA technicians during a tour of storm-damaged houses in Florida and Mississippi last fall. Their findings, made available by HUD, reaffirm that construction failures in windstorms nearly always occur at joints between materials and not in the materials themselves.

Concrete block, preferred by Florida code officials, is lethal in high winds when it is not reinforced. Hup says the key failure point in a block house is the bond beam on top of the walls. If not adequately anchored, wind can tear it from the walls and thus lift off the entire roof.

Hup's recommendation: Put horizontal reinforcing rods in the bond beam, then run vertical rods through the cores of the blocks and anchor them to both the bond beam and the foundation. Wood trusses on block walls should either be anchored

to the bond beam by straps, or fastened to a well-anchored wood top-plate (above left).

Anchoring a wood-frame house is similar, except that the job is done with stee bands instead of rods. The cost may be twice that of reinforcing concrete bloc because of the extra labor in bending the bands over framing members and attaching them with barbed nails (above, right).

An extra tip from HUD: The safest plac in a house during a tornado is an interio closet.







POWER PILL for fastening guns is unique because it has no cartridge case. It comes in lots of 100, in three energy levels color-coded for identification.

This aspirin-size pill drives fasteners—and could also start engines

So says the manufacturer—USM Fastener Co. of Shelton, Conn.—which introduced the pill two months ago as a revolutionary advance in powder-actuated tools. It is a pellet of nitro-cellulose, available in three energy levels, which drives 3"-long fasteners into concrete or steel.

Unlike conventional cartridge charges for fastening guns, the new pellet needs no case, primer, or wadding. So it has these advantages:

- 1. Its price is 50% less than that of conventional charges.
- It burns completely when it explodes, so tools that use it need no ejection mechanism.
- 3. It is safer than conventional cartridges because it will detonate only when confined within the chamber of the tool. If ignited outside the tool, it burns rather than explodes.

The pellet has other potential uses that

go beyond fastening equipment. According to the manufacturer, it could be used to start small gasoline engines by firing simple, spring-actuated mechanism, thut eliminating pulleys and storage batteries. The key to this application is that the pellet's normal energy level—that of a 22 calibre cartridge—can be increased to the level of a 20 mm cartridge. Another possibility: 100 of the pellets could be groupe and used like dynamite.

New products start on p. 12





Ozite® Town 'N' Terrace Carpet made with Vectra® fiber proved attractive and durable in bathrooms, kitchens, recreation rooms, on patios, balconies, walkways...with over 20 million yards in use! Where would you use it?

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Use Ozite Town 'N' Terrace Carpet in the kitchen to add comfort, reduce noise, cut dish breakage. Put it in recreation rooms, bedrooms and bathrooms to give warmth, end floor polishing and waxing. Use it in new dramatic ways outdoors...on patios, walkways, porches, balconies. Starting to get ideas? Read about the technical advantages of Town

'N' Terrace on the back, then mail coupon for full details!









As advertised in LIFE magazine Available in 16 decorator colors



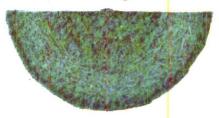
OZITE TOWN 'N' TERRACE CARPET made with



Tests prove the superiority of Ozite Town 'N' Terrace Carpet made with Vectra® fiber over floor covering costing twice as much!

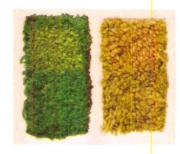


3,000 revolutions of abrasion test have \$11.95 retail acrylic carpet down to the backing!



But, the abrasion wheel (Standard Taber Abraser), which can quickly spin off years of hard wear, barely makes a dent in new Ozite Town 'N' Terrace Carpet made with remarkable new Vectra polypropylene olefin fiber. Ozite's unique manufacturing method permits the use of staple fiber of higher tensile strength than normally used in regular carpeting.

Fadeometer Test



Wool 100 hours

Acrylic 160 hours



Nylon 100 hours

Polypropylene without stabilizers 216 hours

Polypropylene with stabilizers Over 2,000 hours

Most manufacturers of piece-dyed carpets try for 40 to 60 hours fade resistance. Even stock-dyed carpets strain to reach 200 hours. The special stabilizing chemicals used in the solution-dyed Vectra fiber enables it to resist ultra-violet rays—and permits Ozite to guarantee its carpet to withstand 500 hours of Fadeometer test without discoloration!

Stain Resistance





Polypropylene

Vectra polypropylene fiber is resistant to most harmful chemicals that tend to bleach and stain competitive products, including most acids, alkalies, salts, solvents, and oxidizing agents. Ozite Town 'N' Terrace Carpet resists spotting and bleaching from ammonia, chlorine, coffee, tea, soft drinks, shoe polish, merthiolate. mustard, catsup-practically everything, including the accidents of dogs and children. Insects and mildew do not attack polypropylene. Fungus growth is not supported by the fiber itself, won't shrink, rot, or mildew. And it's virtually non-static. Non-allergenic, too.

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A filament of Vectra reacts to water much like a solid glass rod. The water rolls right off. Vectra olefin fiber has zero (0%) moisture regain.





Easy to install. Cuts with scissors or knife. Lies flat. Doesn't curl. No binding of exposed edges necessary. Does not need carpet cushion, tacking, or professional installation. However, if desired, it may be installed the same as conventional carpet. It is recommended that in most instances Ozite carpet be installed without permanent or semipermanent adherence. Where it is desirable to adhere the carpet, the following methods of installation are recommended. Double faced tape or Ozite AP 400 waterproof adhesive may be used both indoors and outdoors.

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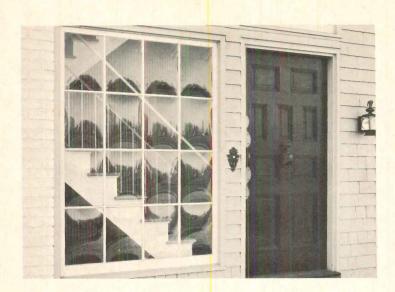
They'll be looking for the Signature Bath in the model homes they see.

Now is the time to install the Signature Bath in your model home—in time for the big Spring buying season. Find out how. Send today for American Olean's Signature Bath Builder Kit. It includes floor plans and working sketches, consumer ad reprints and point-of-sale materials. Just fill in the coupon!

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For more information, circle indicated number on Reader Service card p. 131





Curved glass adds glamor—and a measure of privacy—to exteriors

Both features result from the highly distorted reflections (above, left) caused by the curvature of the glass. From the street, it is virtually impossible to see through the glass. But looking through the glass from inside (above, right), there is less distortion than in flat glass and the curvature is not apparent at all.

The curved glass is molded from flat sheets through a method originally developed for round instrument panels and clock faces and only recently adapted to rectangular shapes. Depending on light size, the glass protrudes 34" to 1".

But the curvature presents no glazing problems because it does not extend to the very edge of the glass. The edges form a flat border about 1/8" wide so the glass fits against sash conventionally.

Curved glass costs more than flat glass, but the difference varies according to light and sash size. One window manufacturer—Burton Woodwork of Cobleskill, N.Y.—estimates curved glass adds about 15% to the retail price of an average-size bow window.

A bonus feature of the new glass is the strength added to it by the curvature (photo, right). Another bonus: The glass tends to look clean even when it's not.

Sizes are available for all standard light dimensions, in single glazing only. Curvopane, Hartford, Conn. Circle 280 on Reader Service card



RESISTANCE TO BREAKING is a benefit of curved glass. It will support a man's weight.

Foam-core bifolds promise builders a 50% cost saving

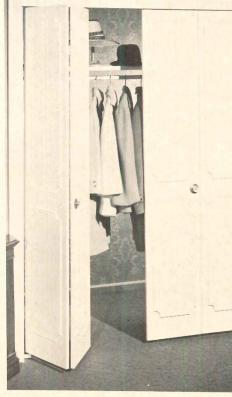
The manufacturer says a 4'0" x 6'8" opening can be filled with the doors for \$30, compared with \$60 for similar-appearing bifolds. Production starts this

Part of the saving comes from the doors' light weight—5 lbs. for a 12" x 6'8" panel, or half the weight of a wood or steel version—and their resistance to warping. These two advantages permit the panels to be hung with no bottom track or butterfly aligners, reducing installation time to 15 minutes. The manufacturer guarantees alignment for five years.

But most of the saving comes from a new, high-speed manufacturing technique in which polyurethane foam is poured between molded plastic faces to form a core free of voids or air entrapments. The core is framed by a metal U-channel. Previous attempts at plastic-faced doors have involved gluing the faces to preformed cores.

Three door styles are available for 6'8"-high openings, 1'6" to 12'0" wide. HC Products, Princeville, Ill. Circle 281 on Reader Service card





New products continued on p. 12-





Did you know... You Can Have Chambers For Not A Cent More Than Other Leading Brands?

It's true! You can have all the merchandising advantages of America's top quality brand at no extra cost. Certainly, this doesn't mean our quality standards have been lowered! It simply means that you can select a Chambers kitchen package with various optional features to fit practically any building budget . . . and still be positive of built-in Chambers quality, beauty and prestige. Write us for information on our complete line of built-ins: ovens and surface ranges, dishwashers, disposers and refrigerators. Remember nothing speaks quality as quickly as Chambers.

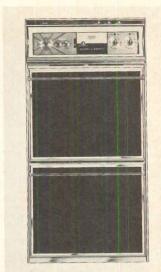




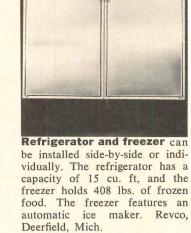
Kitchens



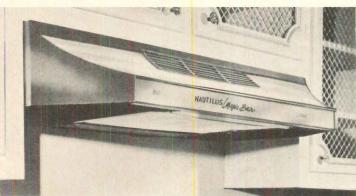
Plastic-faced refrigerator displays a Mediterranean motif with a deep-paneled door molded of walnut-grained vinyl, wrought-iron hardware, and a teak-grained interior. Available on special order. Kelvinator, Detroit. Circle 215 on Reader Service card



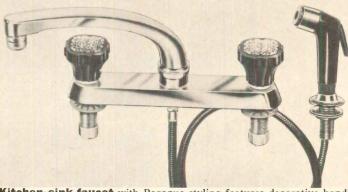
Gas built-in double oven is 20" wide, yet fits into standard cabinet widths. Model features lift-off doors, and a triple rotisserie in its upper compartment. Black-glass doors are standard equipment. O'Keefe & Merritt, Los Angeles. Circle 216 on Reader Service card



Circle 217 on Reader Service card



No-duct range hood comes in color and stainless steel, in widths ranging from 24" to 42". A touch bar starts and stops the motor, turns fan to high speed, and controls light. Combines three filters. Nautilus, Freeland, Pa. Circle 218 on Reader Service card



Kitchen-sink faucet with Baroque styling features decorative handle inserts adorned in filigree. Offered in a choice of four colors: Mediterranean blue, red, white, and black. Sterling Faucet, Morgantown, W. Va. Circle 219 on Reader Service card



Undercounter dishwasher has cushion-coated racks that protect fine china and silver. Cutout dimensions: 24" deep and 24" wide. Height is adjustable to 35¼" maximum and 33¾" minimum. In avocado, coppertone. Tappan, Mansfield, Ohio.

Circle 220 on Reader Service card



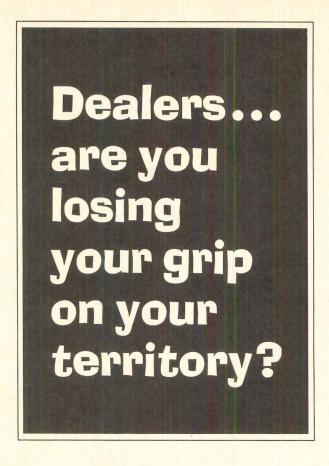
Deluxe garbage disposer that is factory-tested and permanently lubricated is sold with an unconditional guarantee good for one year. Model is equipped with a ½ h.p. motor for fast grinding action. Roberts Manufacturing, Cleburne, Tex.

Circle 221 on Reader Service card



Washer-dryer combination incorporates special settings for durable-press fabrics. A signal at the end of the drying cycle reminds home-maker to remove clothes at once—necessary with durable-press. Comes in copper. Frigidaire, Dayton, Ohio. Circle 222 on Reader Service card

New products continued on p. 135





Float-Away® dealers aren't. They're protected and their select territories are well defined.

IF YOU WANT TO HAVE YOUR OWN SALES TERRITORY with a high-quality product to distribute—team up with Float-Away. We're looking for aggressive, well-rated dealers capable of selling a specialty product—Float-Away Doors—the best metal bifold door made. Builders across the country have found Float-Away closet systems to be a major contributor to more profits and more satisfied buyers. You will, too.

Float-Away doors have greater customer appeal—no other closet door even offers all the features Float-Away guarantees:

- 5 models in three grades—Deluxe, Standard, and Budget.
- ☐ 5-year guarantee on Deluxe and Standard models, one-year —Budget model.
- ☐ Unlimited flexibility—they can fit all openings.
- ☐ Widest ranges of heights & widths in the industry to fit any job requirement.
- ☐ Unique method of handling, servicing and supplying.

For more important proven features found in Float-Away, write to us on your letterhead.

A few choice territories are available to agressive, well-rated dealers. Contact Float-Away.

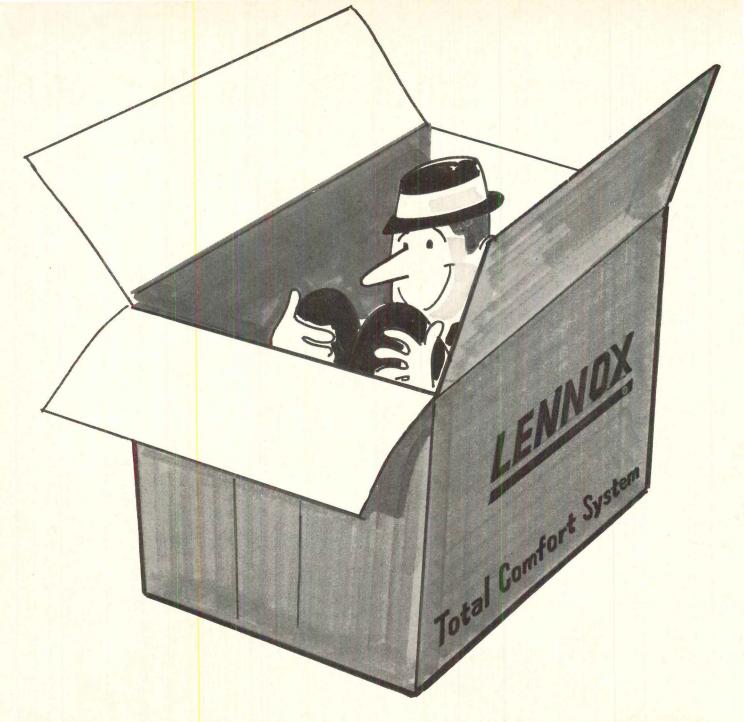
FLOAT-AWAY SPECIAL BUDGET DOOR!

Field-tested for customer satisfaction. Meets the specifications of competitive doors... but costs less. Sales proven.

Interested? Need more details? Write or phone: ®
FLOAT-AWAY DOOR CO.

Dept. H-267, 1173 Zonolite Road, N.E. Atlanta, Georgia 30306, Tel. (404) 875-7986 LOS ANGELES AREA: Woodall Industries, Inc. 10423 Valley Blvd., El Monte, Calif. 91734, Tel. (213) 444-2561 San Francisco area: 2365 Lafayette St., Santa Clara, Calif., Tel. (408) 243-8008





A LENNOX TERRITORY MANAGER* COMES FREE WITH EVERY PURCHASE

So who needs him?

Any busy builder! Because he does things like this for you:

Helps you select the Lennox dealer best equipped to serve you.

He makes factory help available to design your duct distribution systems. And to select the right Lennox equipment.

And sees that you get the best installations.

He will solve a problem on delivery.

He brings you promotional facilities from his factory — brochures, ads, posters, radio and TV scripts, sign designs. And helps you use them . . . profitably.

He also has several complete, ready-made new-home promotion packages, including one on "Living Air." T.M.

He represents quality and

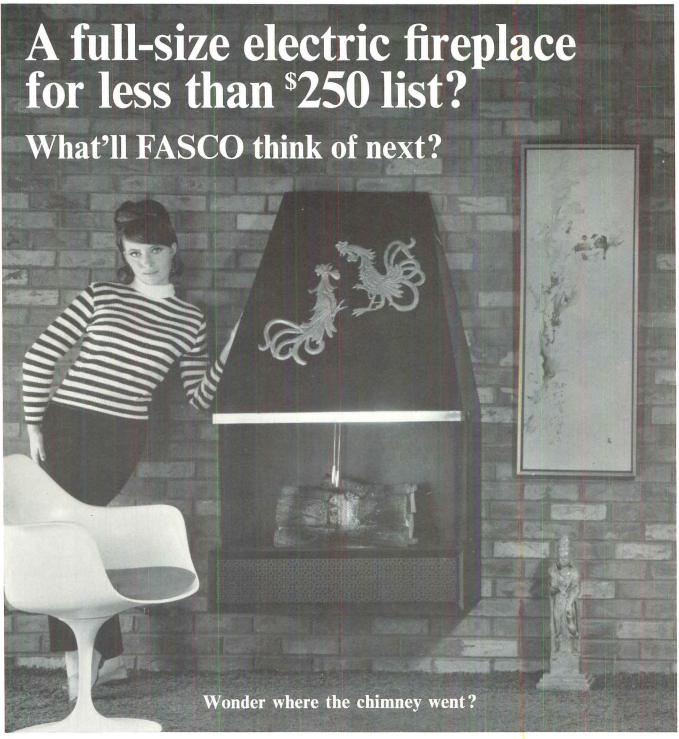
dependability — in product and service.

So call your "free" Lennox Territory Manager; make him show you. He'll like it. You will, too!

Write Lennox Industries Inc., 235 South 12th Avenue, Marshalltown, Iowa.

*Territory Manager (T.M): the "old pro" Lennox factory representative who works directly with dealers and their builders, architects, engineers, contractors, schools.





You can save hundreds of dollars with this new line of beautiful and functional Fas-Glo electric fire-places. Full-size fireplaces, at a fraction of the cost of conventional fire-places. And there are no expensive installation or labor costs, no flue, no chimney to construct, no wasted heat. Your customers enjoy lasting, thermostatically controlled warmth year 'round.

Fas-Glo fireplaces may be permanently wired, or plugged into a wall socket. They are easily adaptable to any temporary or permanent room location. Living room, Den, Bedroom, Family room, Any room.

There are no dirty logs, dust or soot to clean up. Fas-Glo will heat any size room—with an installation that takes only minutes. The logs are of genuine oak and provide a simulated flickering flame when the unit is turned on. And the





best part is the whisper of wood aroma and the crackling sound of burning logs.

Every Fas-Glo unit is available with or without heating elements in the base. And you can choose 1650 watt models, or 4000 watt models.

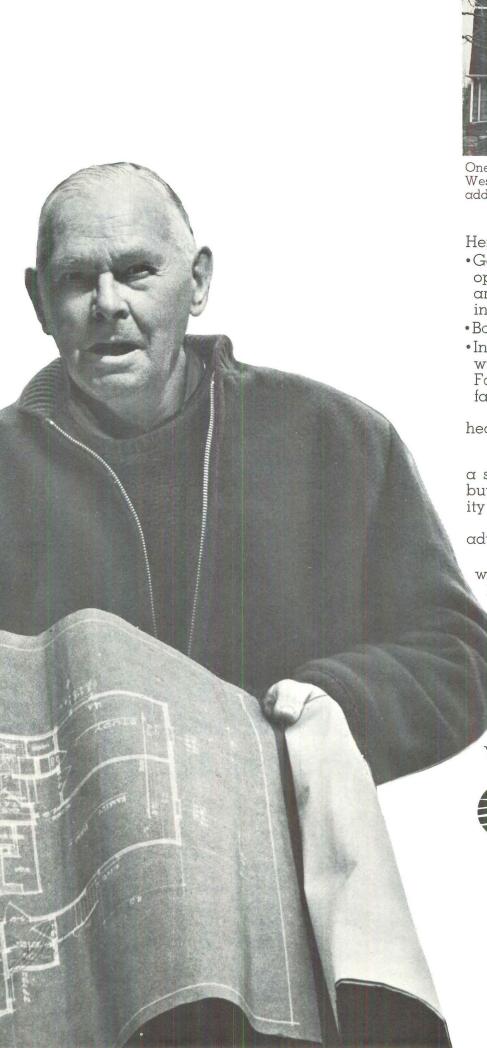
Every unit includes logs, fire screen, sound maker and scenter. But get all the facts. All the specifications. Send for our new brochure on Fas-Glo fireplaces.



"We'll think twice before we build another gas-heated house-

oil heat outperforms gas in every way!"

> T. J. Martin, Builder Authentic Early American Homes Hartsdale, N.Y.





One of two identical houses T. J. Martin built in Westchester County which convinced him of the added values of oil heat.

"We proved it with identical houses. Here's what we found:

- •Gas heat costs a whopping 43% more to operate than oil. (I know that in some areas, oil may not show such a saving; in others it may show even more.)
- Both fuels are equally clean.
- In convenience, comfort, safety, and hot water—oil heat topped gas every time. For instance, oil heats water three times faster than other fuels.

"From now on, we're confirmed oil-heat builders."

Mr. Martin knows modern oil heat is a selling point that helps move houses: buyers recognize it as the mark of a quality home.

Besides that, oil heat offers distinct

advantages to the builder.

With oil heat you build where you want: you're not tied to high-priced land. Build when you want: no waiting for mains or laterals to be run. Save on each unsold home: \$40-\$50 when it must be heated in cold weather. Avoid expensive callbacks: the oil dealer supplies the service.

Oil offers plenty of other advantages, too. Interested? See your oil dealer—or write National Oil Fuel Institute, Inc., 60 East 42nd St., New

York, N.Y. 10017.



This mark of quality



PRESSURE-TREATED LUMBER

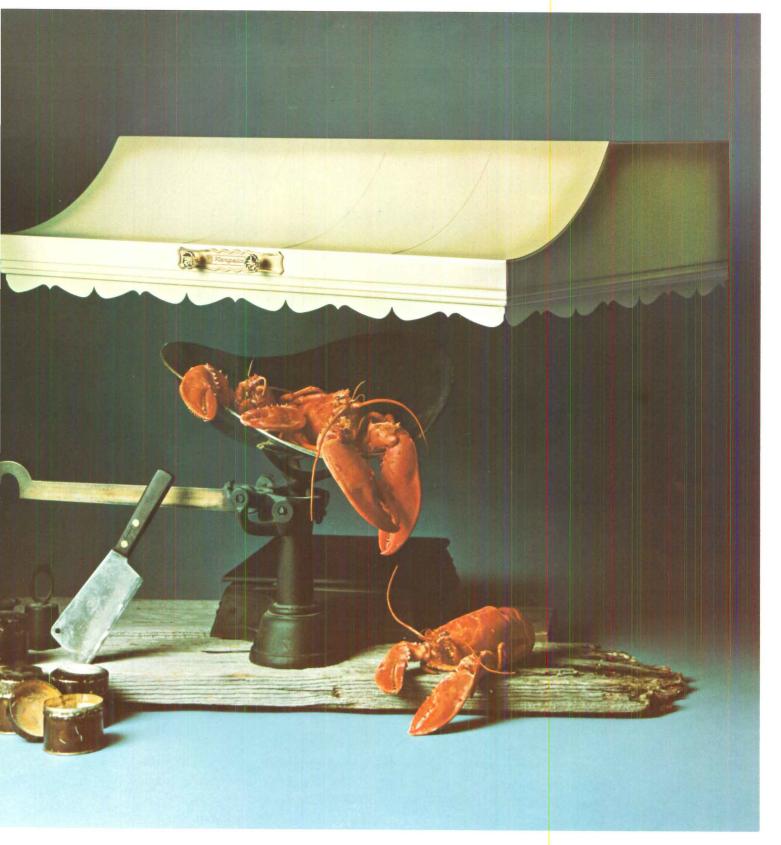


belongs in quality homes like this.

Any good builder takes pride in the house he builds. He uses the best materials and workmanship available. Take this lakeside home, for example. It's got quality... all the way through. The construction is entirely wood. Moisture was a real problem, so only the best pressure-treated lumber would do. That's why Wolmanized pressure-treated lumber was specified. It was used in such critical areas as porch decks, steps and supports, retaining walls, joists and studs. Because of the permanency of Wolmanized lumber,

it is recognized as a valuable structural material in a location where decay or termites are major proble Now, builders can have economy and beauty of wa construction where never before possible... with a minim of maintenance.

For more information on how you can build qual homes, write for our Wolmanized Product Bulletin N W579. Wolman Preservative Dept., Koppers Compan Inc., 795 Koppers Building, Pittsburgh, Penna. 15219

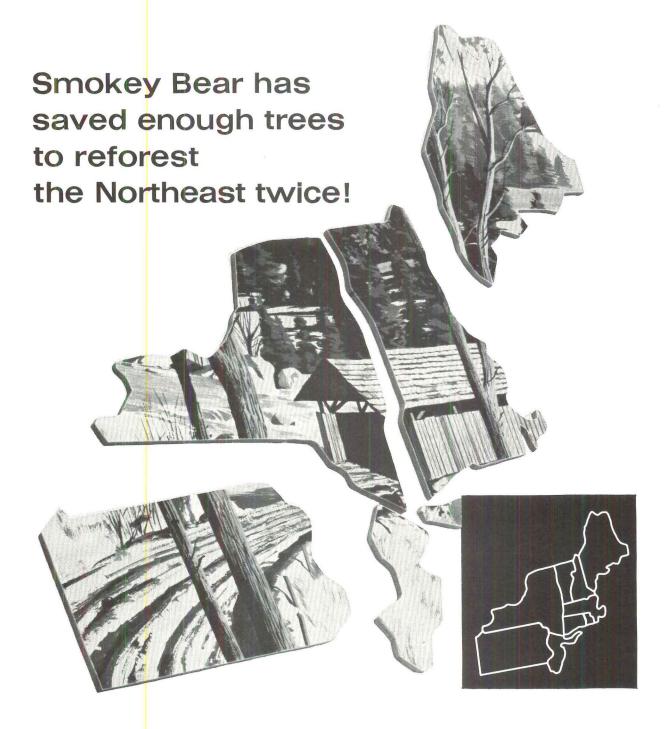


Let Rangaire clear the air-

—as to what women want in a range hood. When you install a hood, you want it to work, be quiet, and look good — to harmonize with kitchen decor. A hood that causes call backs and customer dissatisfaction can be the most expensive hood you ever installed. Rangaire builds range hoods that work — you can rely on it. And, they're beautifully styled, besides being made to last. We try to be as careful of your reputation as

we are of our own, and never let a builder down. And that's saying a lot, because we build a lot of range hoods. So, to be sure of hood quality, and of your customer's satisfaction, be sure to specify Rangaire.





acres of prime timber.

That's a fine record, but the job's the ashes, and drown them again. not over and never will be. Nine out Crush all smokes dead out.

Since Smokey Bear's forest fire of ten forest fires are caused by careprevention campaign began in 1942, less people who forget Smokey's he's helped save over 272 million ABC's: Always hold matches till cold; Be sure to drown all campfires, stir

Please! Only you can prevent forest fires

Published as a public service in cooperation with The Advertising Council.

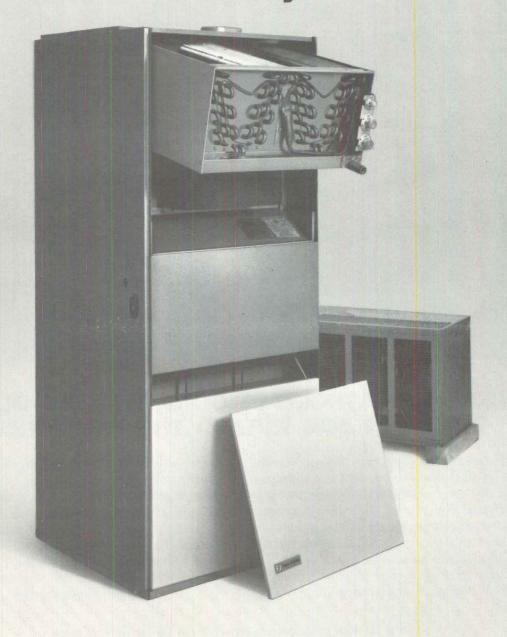


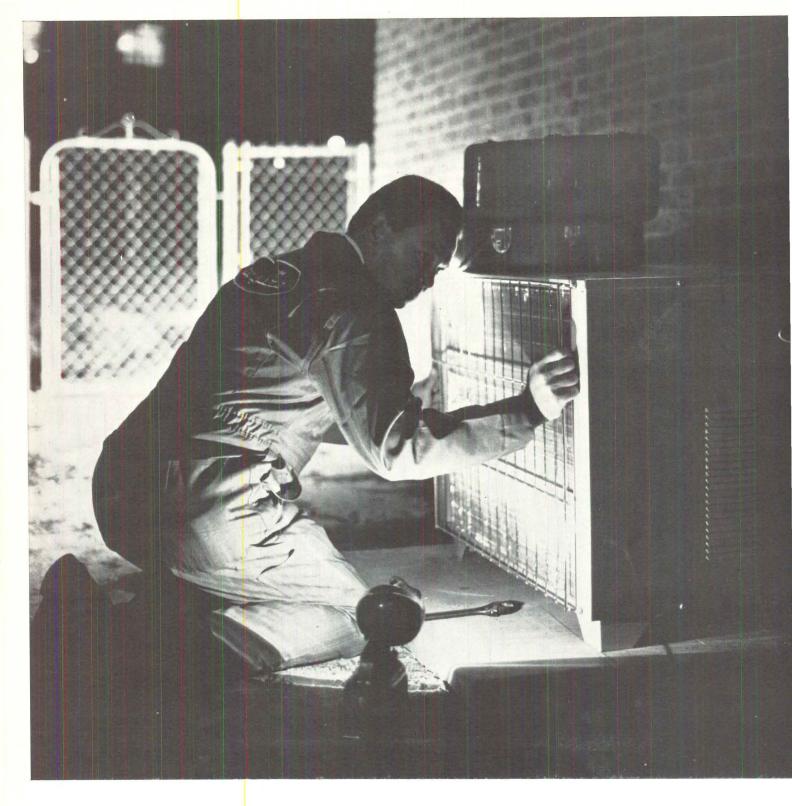
The "Silent 67" air conditioning furnace is top drawer in sales appeal. Comes factory-complete with air capacity and a built-in compartment for cooling. F-J coil slides easily into the one-piece cabinet, ready for a simple remote condensing unit hook-up. Cooling can be added now or later with no furnace modifications, or other add-on components. Available in either upflow or counterflow air delivery. From 80,000 to 200,000 Btuh heating. Cooling from 2 through 6 nominal tons. Overall height is only 67" including cooling coil. Optional two-stage gas valves and two-speed blower motors provide added efficiency and economy. It's pre-engineered for whisper-quiet performance. If you're interested in complete details on how to give your buyers the best in heating and cooling,

contact your Fraser-Johnston distributor-dealer, or write to Fraser-Johnston Co., 1900 17th Street, San Francisco, California 94103.

Fraser-Johnston

top drawer flexibility





RANGAIRE HEATING/AIR CONDITIONING DEALERS DO YOUR JOB RIGHT...THE FIRST TIME

You won't find a Rangaire heating and air conditioning dealer rushing off to his next job—not until he's sure your installation job is complete, and everything is working perfectly. Even though Rangaire systems are among the finest available, we don't have the biggest name in the business—yet. So Rangaire dealers work harder and longer to make sure each installation is perfect. And, builders appreciate this extra care and service . . . they get a great peace of mind when

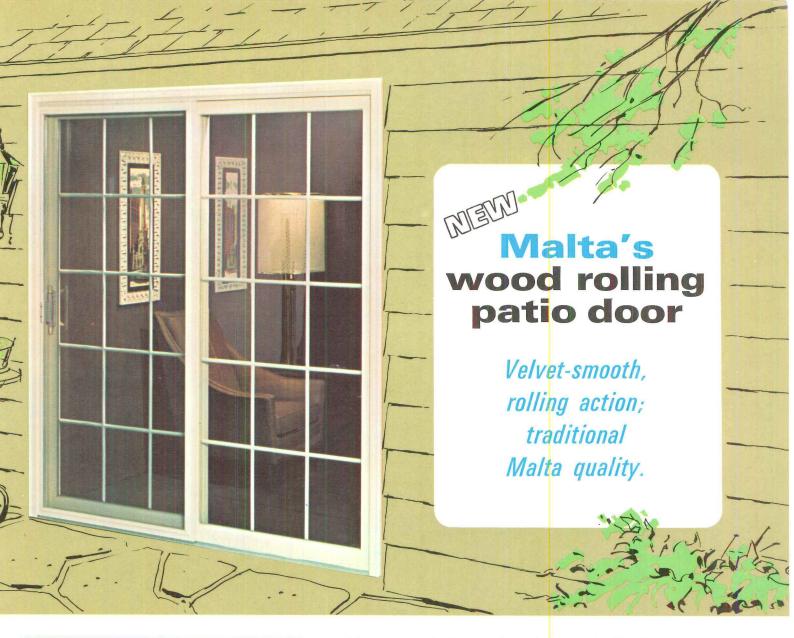
our quality product is backed by our dealers' quality installations. Why not call your Rangaire dealer for heating and air conditioning systems . . . from 15,000 to 220,000 BTU capacities. Ask him about goodlooking Rangaire COLOR/blend condensers, too, that harmonize with your homes' exteriors to beautify rather than detract. You'll find his price competitive, his products equal or better. And his eagerness to do your job right a refreshing change.

Write for complete information and the dealer in your area.

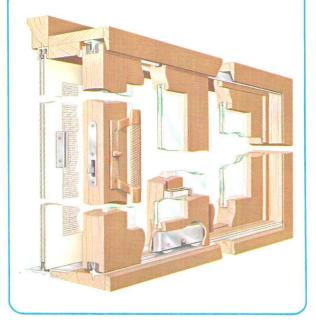
RANGAIRE CORPORATION

COBELL INDUSTRIES DIVISION • CLEBURNE, TEXAS 76031

Circle 124 on Reader Service Card HOUSE & HON



Many of the hidden values of the Malta Patio Door are revealed in this sectional drawing. Wood is an excellent insulator; two panels of glass with dead air space, hermetically sealed, stops thermal transfer; vinyl weatherstripping adds to the total value.



This is perhaps the finest, fully insulated wood rolling door unit on the market today. One look at its many design innovations will substantiate this claim: Quality wood construction of hand selected Ponderosa Pine; fully Woodlife treated; insulating glass hermetically sealed to prevent thermal transfer; a low silhouette solid oak sill with heavy extruded aluminum nosing; dual durometer vinyl weatherstripping and meeting rail interlock; tandem rollers, four to each door, are a few of the quality features incorporated in the design. It's a door you can specify with confidence for the finest apartments, residential and commercial applications. It meets the most critical requirements for rolling patio or terrace doors. And they are backed by Malta's highly regarded 10 Year Performance Warranty — best in the business.

The many outstanding details of this new door unit are described in detail on the reverse side of this catalog sheet. If you have further questions, call your nearest Malta representative, your building materials supplier or write Malta at the address below.



MALTA MANUFACTURING COMPANY

Gahanna (Columbus) Ohio 43020. U.S.A. Plants in Malta and Zanesville, Ohio

Exciting new features for convenience, safety and durability

wood framed for warmth. Carefully selected, preservative treated Ponderosa Pine is used throughout. Finest detailing available. A quality door for the most critical applications.

DUAL DUROMETER WEATHERSTRIPPING. Both doors are weatherstripped with a combination of rigid and flexible vinyl. All friction surfaces are rigid vinyl bonded to flexible tubular vinyl.

POSITIVE MEETING RAIL INTERLOCK. When doors are closed, meeting rails are interlocked with a dual durometer positive seal. Schlegal wool pile weatherstripping at the head and sill insulates against moisture or thermal transfer.

LOW SILHOUETTE SOLID OAK SILL. The threshold sill is durable oak with extruded aluminum nosing. No metal to air thermal transfer from exterior to interior. Minimum heat and air-conditioning loss.

INSULATING GLASS. Choice of 3/16" crystal or tempered glass.

VINYL BOOT GLAZING. Insulated glass panels are glazed with flexible vinyl boot glazing: Will not harden or crack due to climate extremes. Proved best in use for insulated windows of all types.

DURABLE METAL TRACK. Both wood door and screen door glide smoothly on metal tracks. The extruded aluminum wood door track has a special stainless steel cap for resistance to scuffing and wear.

REVERSIBLE RIGHT OR LEFT DESIGN. Fixed and rolling doors are reversible for either right or left hand installation. Door latch assembly easily reversed.

TANDEM BALL BEARING ROLLERS. The rolling door is supported by tandem rollers, four rollers to the door. Weight is evenly distributed and smooth, quiet action is assured. Won't jump the track.

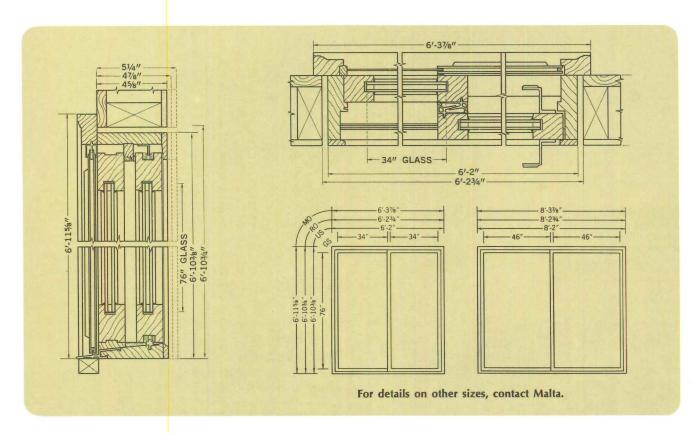
CONTEMPORARY DOOR HANDLE. The look of quality with gleaming Goldtone

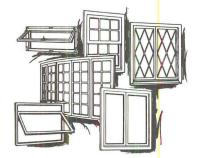
finish. Reversible latching mechanism retracts on contact with jamb — can't accidentally lock you out.

REVERSIBLE HEAVY DUTY SCREEN AND WHITE FRAME. The screen door has a heavy duty extruded frame and extra heavy aluminum wire screening. Adjustment leveling screws are recessed. No uneven, unsightly screws protruding below frame. Screw adjustment is inside screen — discourages removal from exterior and keeps screen door on track

CHOICE OF SNAP-IN DIVIDED LIGHT GRIDS. Removable grids available in rectangular patterns. Add a traditional or contemporary effect as desired. Easily removed for cleaning.

MALTA GUARANTEED QUALITY. The new Malta Patio Door is covered by the well known Malta 10-Year Performance Warranty — so important to the home or apartment owner through the critical years. Built for a lifetime of good service.





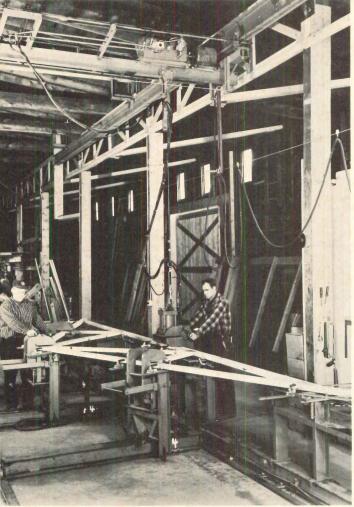
Malta Quality Wood Windows carry the best window guarantee in the business

Choose from three types of double hung windows — with SSB or insulating glass. Precision balancing; fully weather-stripped. Or Malta Casement, Vent, Glide, Basement or Casement Bow. Guaranteed quality in a broad price range. See your Malta Distributor or write for catalogs.



MALTA MANUFACTURING COMPANY Gahanna (Columbus, Ohio) 43020, U.S.A.

ools & equipment



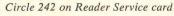
ydraulic truss machine with 60' jig builds all types of roof usses. Machine eliminates hand nailing and flipping of roof trusses and requires only half the space of similar truss-building equipment. tructoMatic, Chicago. Circle 240 on Reader Service card



Loader-backhoe is powered by a four-cylinder engine—80 h.p. diesel or 77.7 h.p. gasoline—and has eight forward speeds and four reverse. Loader-bucket options: 7/8, 1, 11/4 cu. yd., plus 7/8 yd. Drott 4-in-1. John Deere, Moline, Ill. Circle 241 on Reader Service card



Multi-purpose sprayer is designed for textured coatings, waterproofing, concrete wall and ceiling coatings, and seamless-floor coating. Constructed with factory-built gear-reduction box and electric clutch. Delawanna, Clifton, N.J.





Portable power plant produces 3500 watts of AC continuous-duty electric power in a 4-pole 1800 RPM alternator. Unit will power a 1.5 h.p. motor plus 1200 watts of lights. With manual, electric, or remote start. Wincharger, Sioux City, Iowa. Circle 243 on Reader Service card



ortable electric generator rovides up to 2,000 watts of 0-cycle 115-volt or 230-volt ower. Voltage is shown on oltmeter and can be adjusted om throttle of the 5 h.p. enine. Weight: 76 lbs. McCulloch, Vellsville, N.Y.

'ircle 247 on Reader Service card



Vibratory compactor delivers 1700 lbs. of solid compaction per hr. over material layers up to 10" deep. Includes reversible shock-mounted guiding handle and idle control, to conserve fuel. With 4 h.p. gasoline engine. Wacker, Milwaukee.

gine. Wacker, Milwaukee.
Circle 244 on Reader Service card



Quick-set clamp can be released by pressing a trigger. The shaft can then be moved, without turning, to new position and locked into place. Manufacturer estimates this results in 90% time saving. Sizes: 1" x 1½" to 4" x 4". Wing, Tempe, Arizona. Circle 245 on Reader Service card



Portable spray unit for paint, oil, or other fluids is powered by 12-volt battery or vehicle electrical system. No air compressor is necessary. For 5-gallon containers, and 16- and 55-gallon drums. Electrical Lubricating, Abilene, Tex.

Circle 246 on Reader Service card

start on p. 122

Baths



Bathroom cabinets feature a simulated-marble top with red grain. The grilled-door cabinets at right were originally designed for use in kitchens, but adapt ideally to towel storage. I-XL, Goshen, Ind. Circle 205 on Reader Service card



Countertop lavatory — 18" round—has flat rim that fits tight for leakproof installation. It features a 13¾" x 11¾" x 6½" oval basin and concealed front overflow. In white, coral, blue, and tan enameled cast iron. Mansfield, Perrysville, Ohio.

Circle 206 on Reader Service card



Vanity cabinet, fitted an ready for installation, is available in two widths: 24" or 30' Model incorporates a cultured marble top, porcelain-on-stee undercounter bowl, and a bas cabinet surfaced with laminate plastic. Formco, Cincinnati. Circle 207 on Reader Service car

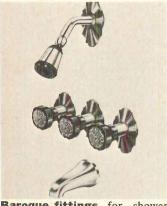
Lavatory fittings in transparent acrylic are offered in two sizes: small, for center-set installation on lavatories; and large, for both lavatory and bath. Manufacturer now offers four styles, for bath or powder rooms. Kohler, Kohler, Wis. Circle 208 on Reader Service card



Rectangular lavatory-20" x 12"-is suggested for narrowcounter installations. Model is offered with right- or left-end center-set fitting. Available in pastel or white enameled cast iron. Universal-Rundle, Castle, Pa. Circle 209 on Reader Service card



Crystal-glazed ceramic floor tiles have a smooth base spattered with clear overglaze in a lace pattern. Tile is available in square octagons (shown), and hexagons. Also for walls, countertops, sill backsplashes. Wenczel, Trenton, N.J. Circle 210 on Reader Service can



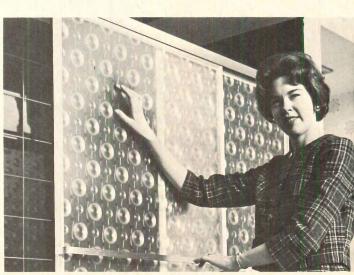
Baroque fittings for shower and bath feature Mediterranean motif. Decorative handles with filigree trim are offered in a choice of four colors: Mediterranean blue, red, black onyx and white. Sterling Faucet, Morgantown, W. Va.

Circle 211 on Reader Service card



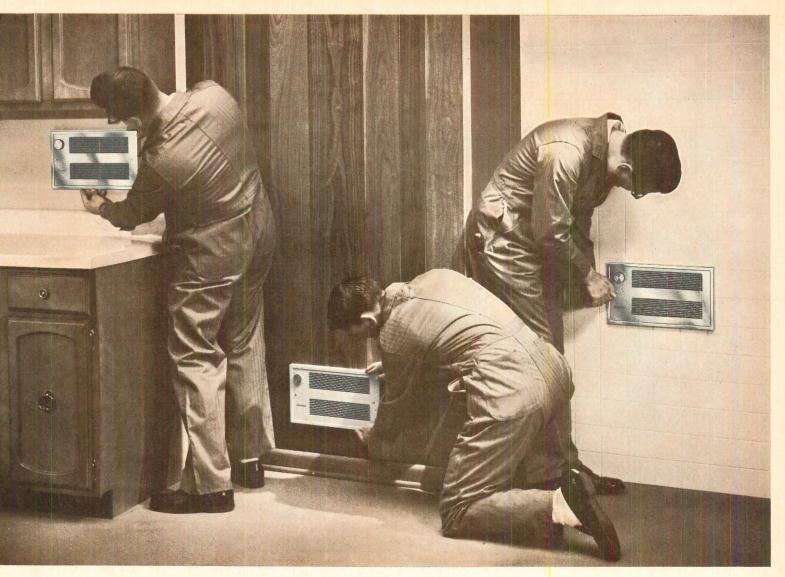
Shower head with extra spray channels incorporates corrosionfree plungers formed of a hightemperature plastic that resists lime deposits. The spun stainless-steel face plate is tarnish resistant. Speakman, Wilmington,

Circle 212 on Reader Service card



Heavy-duty tub enclosure, with sliding doors incorporating froste vinyl film in an embossed bubble pattern, fits all 4½' and 5' recessed bathtubs. Doors come with attached towel bars. In clear, pink, ar blue. Theodore Efron, Chicago. Circle 213 on Reader Service card

New products continued on p. 13



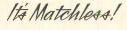
Versatile new **HUNTER HIDE-AWAY** goes anywhere



Fits between standard studs—same size for 1500, 2000, 2500 watts. Features cross-flow blower.

Anywhere on wall, any room-homes, apartments, motels, offices, stores, schools. Choose wall or built-in thermostats. 240 or 208 volts, beige grille or chromed for bathroom and kitchen (1250 watts). More powerful than many heaters twice as big, yet quieter than many smaller heaters. Produces up to 8533 BTU/H. Grille temperature averages 30° lower than competitive heaters. Budget priced, economical to operate, easy to install. Fan motor wired in series with heating element. Ideal for both new construction and conversions.

Hunter Electric Heat







Hunter makes a complete line of electric heaters and fans of all types.

MAIL TODAY FOR DATA

Hunter Division, Robbins & Myers, Inc. 2733 Frisco Ave., Memphis, Tenn. 38114 Please send full information on the new Hunter Hide-Away electric wall heater to:

Name.

Company_

Address_

Plumbing



Soil-pipe assembly tool, for pipe using neoprene gaskets, works on elbows, Y's, T's, or straight lengths from 2" to 8" dia. Operator tightens chain around pipe and ratchets handle to draw pipe together. Ridge, Elyria, Ohio. Circle 225 on Reader Service card



Adjustable closet ring for use with plastic drain-waste-vent systems has built-in swivel to align toilet bowl. May be solvent

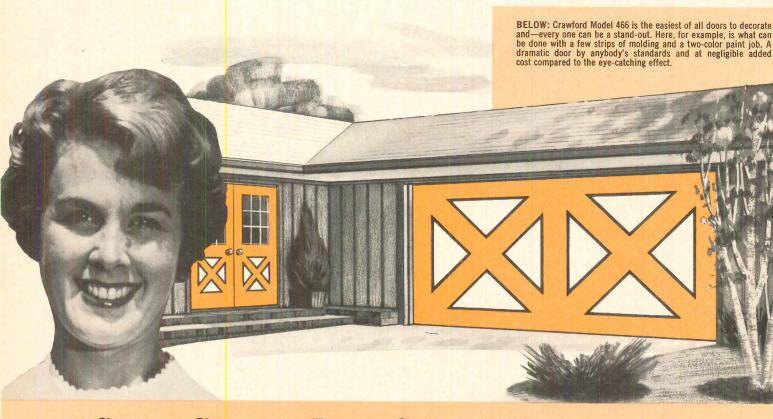
welded to closet bend. R. & G. Sloane, Sun Valley, Calif. Circle 227 on Reader Service card



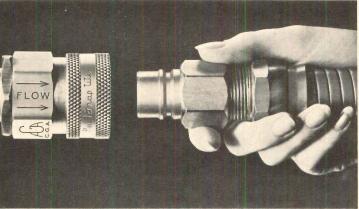
Submersible sump pump has polypropylene housing (above that eliminates corrosion. Uni weighs only 39 lbs. and can be installed in 15" openings. Chi cago Molded Products, Chicago Circle 226 on Reader Service card



Plastic plumbing valves a one-quarter the weight of meta valves mean lower freight and handling costs. Water tempera ture range: —20°F to 180°F Braham, Santa Ana, Calif. Circle 228 on Reader Service care



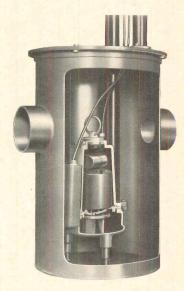
Can a Garage Door Compete with Other Appliances in Buy Appeal?



Quick-disconnect coupling permits any gas appliance to be connected or disconnected by hand in seconds. Couplings come in sizes to fit ¼", ¾", ½", ¾", and 1" gas lines. In brass, aluminum, or steel. Snap-Tite, Union City, Pa. Circle 232 on Reader Service card



Shallow-well pump is offered in 1, 1½, and 2 h.p. models, with capacities to 1200 gpm. Includes flow-control valve, pressure switch, tubing, fittings, and 1½" x 1¼" adapter flange for attaching pump to suction piping. Sta-Rite, Delavan, Wis. *Circle 230 on Reader Service card*



Sewage system incorporates ½ h.p. submersible pump, carbon-steel sump basin, and odorproof cover. Package is designed to handle household sewage, laundry, or disposal waste where basement drain is lower than sewers. Barnes, Mansfield, Ohio. Circle 229 on Reader Service card



Cutter wheel for plastic pipe and tubing comes in two sizes: one (illustrated) for ¼" to 3½" diameters; the other for ¼" to 2¾" diameters. Razor-thin wheel will cut both rigid and flexible plastics. Reed, Erie, Pa. Circle 231 on Reader Service card

Here's how Crawford STYLIST Does it!

1. with OUTSTANDING APPEARANCE: Stylist is the easiest of all doors to Customize—with color for beauty and personality at no extra cost; with color, moldings, cut-outs for rich, sculptured breathtaking effects at nominal extra cost.

2. with HIGH VISIBILITY: the garage door is the largest, most visible single area in any home frontage; Stylist lets you merchandise it with magnetic beauty and design—which can be repeated on the front door and shutters for total buy-appeal.

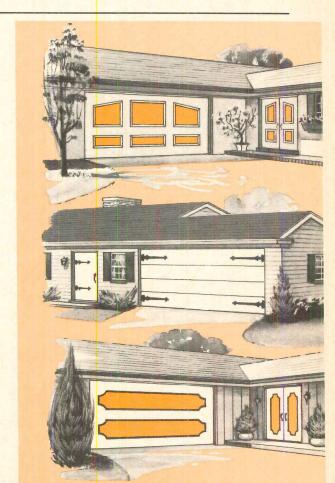
3. with UNLIMITED VARIETY: with Stylist, every home on the project can look different from the curb even if floor plans are basically alike.

4. with QUALITY FEATURES:—LIFETIME WARRANTY on Marvel-Life hardboard skins; LIFETIME WARRANTY on sturdy, welded wood unitized construction; honeycome core which supports skins every inch in every direction; 120 dead air cells per sq. ft. add an insulation bonus.

5. and NO CALL-BACKS: Stylist is installed and guaranteed for one year by your Crawford distributor. He makes the call-backs, if any. You're clear.

6. with EASY CONVERTIBILITY to ELECTRIC PUSH-BUTTON OPERATION by having the Crawford Distributor add a Door-Master Operator.

Make no mistake, the garage door is an appliance—the *largest* moving appliance in any home, and, the most visible. Many builders make it a high-ranking sales feature. You can, too.



Ask your local Crawford Distributor, listed in the Yellow Pages under "DOORS" for Custom Design Sheets CD-3651-2-3-4 & 5 showing more than a hundred practical door designs plus many applique items for highly individual effects. Or write us, Crawford Door Co., Subsidiary Jim Walter Corporation, 4270-29 High St., Ecorse, Michigan 48229.



Floors



Embossed solid vinyl tiles—9" square—simulate a hand-laid brick floor pattern-matched between seams. Contrasting grout lines minimize the appearance of seams. The pattern is offered in a choice of red or white. Armstrong, Lancaster, Pa. Circle 200 on Reader Service card



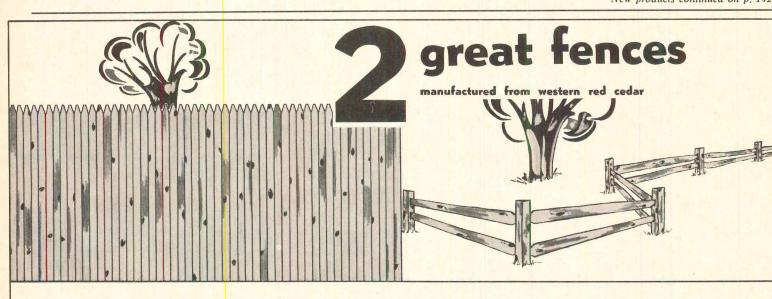
Solid hardwood flooring is manufactured in 5/16"x19"x19" panels composed of several square-edged slats. Grain choices combine red oak or maple with walnut or teak. For installation over concrete or wood. Harris, Johnson City, Tenn. Circle 201 on Reader Service card



Vinyl-asbestos floor tile has a swirling mosaic pattern embossed on a monochromatic background. The embossing helps conceal heel and scuff marks as well as irregular subfloors. In 12" squares. Azrock, San Antonio, Tex. Circle 202 on Reader Service card



Extruded natural clay tiles, for commercial or heavy-duty residential use, are available in red, and in light, medium, and dark tan, plus three patterns. The 6"x3" tiles can be mounted in 12" square sheets. U.S. Ceramic Tile, Canton, Ohio. Circle 203 on Reader Service card New products continued on p. 142



CEDAR RUSTIC

Stockade fencing. . . machine split and trimmed for beauty, privacy and ease of installation. Palings available in four, five and six foot lengths.

SPLIT RAIL

Featuring hand split posts and rails, this handsome "ranch style" fence boasts ease of application, minimum waste and lifetime beauty.

FRAMING LUMBER.... 3"x4" and 4"x4" posts, rough sawn; rails, rough sawn 2"x3" and 2"x4" available in six, seven and eight foot lengths only.

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EUGENE, OREGON 97402

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ecause you can get a lot more into it.

MORE LOAD SPACE—With 256 cubic feet of load space inside, the new Chevy-Van 108 hauls a lot more of anything. Pick from ½- and ¾-ton versions with payload capacities up to 2,775 lbs.

MORE WHEELBASE—Rear wheels have been moved back to accommodate new longer body and give good weight distribution. It's 18" longer—with 18" more wheelbase to support bigger, heavier loads.

MORE POWER, V8 OR 6—V8 models are powered by the hustling Chevrolet 175-hp 283 V8. And, for '67, the economical 230-cubic-inch Six is standard in 6-cylinder models. Or you can specify a big 250 Six!

NEW STYLING—Handsome new front-end styling—with aerodynamic design—adds to performance by minimizing wind

resistance. Bigger contoured windshield gives better visibility.

sturdy construction—Body and frame are unitized, for strength, with tough all-welded construction. Underbody is specially treated against rust and corrosion; tapered-leaf springs improve the ride.

chevy-van 90—If you prefer a smaller van, you can get a Chevy-Van 90 with 209 cubic feet of cargo area. It offers the same power choice and rugged features

as the big 108. Pick your economical Chevy-Van at your Chevrolet dealer's.... Chevrolet Division of General Motors, Detroit, Mich.





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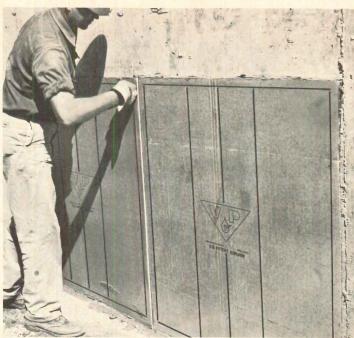
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NEW PRODUCTS

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Construction materials

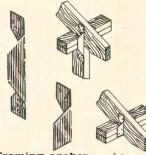


Corrugated kraft panels, filled with bentonite, prevent foundation leaks. Water swells bentonite to a gel (ten times its dry volume) tha expands into cracks. Panels are slightly overlapped when applied. Ameri can Colloid, Skokie, Ill. Circle 270 on Reader Service card



Full-dome damper, designed to reduce fireplace-construction time, serves as a form for laying up masonry. All parts are built in: down-draft shelf, adjustable damper blade, smoke dome, and lintel. Firebird, City of Industry,

Circle 271 on Reader Service card

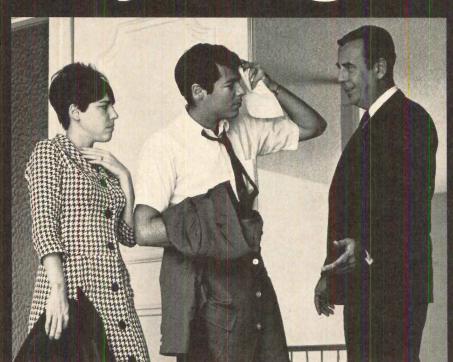


Framing anchor resists uplif of winds against roof. It come in two lengths: 1034", for use where rafters or roof trusses fal in line with wall studs; and 51/4" for use when roof members and studs are not in line. Timber En gineering, Washington, D.C. Circle 272 on Reader Service care

STANDARD V PATTERN	BOARD & BATTEN PATTERN
CHANNEL PATTERN	GROOVED PATTERN

Laminated wood decking-three pieces of kiln-dried hemlock bonded in a T&G assembly—comes in the four patterns shown above in four thicknesses ranging from 2½" to 4½", and in three grades Weyerhaeuser, Tacoma, Wash. Circle 273 on Reader Service care

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We air condition your hot prospects. Once you counted on a kitchen of sell a home. Now you can expect the same effect from air conditioning. Air conditioned homes sell while others sit. Reliable, economical Day & light systems give you a particularly strong "closing feature." Split systems, all-electric heat pumps, gas-electric Duopacs—whatever your need, we can do it—dependably. For more facts on turning hot prospects into com-

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HIGH RISE WALL-BEARING METHOD IS NEW IN APARTMENT CONSTRUCTION

If you could get a superior fireresistant structure, at a lower cost, and move your tenants in a month or two earlier, you certainly would want to look into it.

A recently-revived method of construction, wall-bearing, with Flexicore precast concrete decks is making news in high-rise apartment construction.

Take the Miamiview development in Ohio. This is a two-building wall-bearing project, one 7 stories, one 8, with a total of 181 units. Project manager Jack Small said, "It's like putting up a series of one-story buildings, and not much more complicated. It saves construction time and gets the tenants in sooner."

Owner Julius J. Cohen, builder of over 3000 apartment units in the middlewest, says, "This system is more economical, but our big objective is to hold tenants and build a good reputation. These are top-quality buildings."

This method gives you a kind of "structure package" including not only economy and speed, but cellular floors for built-in ductwork, firesafe construction for low insurance rates and more profitable investment.

Send for 16-page "High Rise Wall-Bearing" report. Talk it over with your architect. Write The Flexicore Co., Inc., Box 825, Dayton, Ohio 45401.

Robert E. Smith Vice-President and Manager



Write for Wall-Bearing Report.

NEW LITERATURE

For copies of free literature, circle the indicated number on the Reader Service card, p. 131.

APPLIANCE GUIDE. Illustrated 32-page catalog includes specifications for ranges, air conditioners, electric heating systems, undercounter dishwashers, disposers, refrigerators, clothes washers, and dryers. Hotpoint, Chicago. *Circle 350 on Reader Service card*

FIRE RESISTANT LUMBER AND PLYWOOD. Lumber and plywood products that meet building regulations for fire-resistant materials are described in a four-page brochure. Wyckoff, Seattle. Circle 356 on Reader Service card

FREE-STANDING FIREPLACES. Full-color brochure displays 13 free-standing fireplaces in home, apartment, or cabin installations. Both wood-burning and gas-fired models are available. Condon-King, Lynnwood, Washington. *Circle* 377 on Reader Service card

METAL AND VINYL-CLAD MOLDINGS. A guide to pairing prefinished paneling and molding lists the most popular products in the lines of major paneling manufacturers. Opposite each is the molding color—16 are offered—that best matches, blends with, or complements paneling. Masonite, Chicago. Circle 360 on Reader Service card

SIDING APPLICATION. Six-page technical folder covers—in text and illustrations—how to apply prefinished lap siding and panel siding. Masonite, Chicago. *Circle 359 on Reader Service card*

PLASTIC-FINISHED PANELING. Full line of plastic-finished wall and ceiling paneling—including moldings and accessories—is described in an eight-page catalog. Specifications for all panel types are included. In color. Marlite, Dover, Ohio. Circle 358 on Reader Service card

CABINET HARDWARE. Full-line of commercial grade cabinet hardware is illustrated and described in a 12-page brochure. Finish information is included. Stanley Hardware, New Britain, Conn. Circle 361 on Reader Service card

PREFINISHED PLYWOOD WALL PANELS. Full-color brochure presents complete line that includes 13 panel styles in five series. Six pages. Insulite, Minneapolis. Circle 362 on Reader Service card

STAIR TREADS, MATS, AND RUNNERS. Catalog covers molded rubber and vinyl stair treads, mats, roll matting, carpets, and runners. Includes product and installation photographs, cross-section drawings. American Floor Products, Washington. *Circle 363 on Reader Service card*

MOBILE MAINTENANCE PLATFORM. Bulletin covers applications and features of a heavy-duty tubular steel platform with these dimensions: 4' high, 4' long, and 28" wide. For use by plumbing, sheet metal, electrical, air conditioning, painting, and general building contractors. Deal, Easton, Pa. Circle 364 on Reader Service card

DOORS AND WOODWORK. Comprehensive 16-page catalog illustrates decorator door line (includes entrance, panel, sash, louver, and folding models). Also included are wood mantels, stairways, blinds, and shutters. Morgan, Oshkosh, Wis. Circle 365 on Reader Service card

RADIO-CONTROL UNITS, Transistorized remotecontrol units used to dispatch mobile radios and to control outlying base stations are discussed in a four-page bulletin. General Electric, Lynchburg, Va. Circle 366 on Reader Service card

ceramic tile. The latest installation methods for ceramic tile are outlined in a 20-page handbook that covers floor and wall installations, swimming pools, and countertops. Comparison chart enumerates the advantages of different mortars for setting interior ceramic tile floors. Also: recommendations for installations on metal studs. For a copy send 10 cents to: Tile Council of America, 800 Second Avenue, New York City; or its regional offices: 4308 North Central Ex-

pressway, Dallas; or 900 Wilshire Boulevard, Los Angeles.

RED CEDAR SIDING. Six-page booklet in full color illustrates exterior-siding installations using saw-textured cedar. Includes tips on weathering agents and exterior and interior finishes. Western Red Cedar Lumber Assn., Portland, Ore. *Circle 367 on Reader Service card*

ALL-PURPOSE SAW. Illustrated brochure includes sketches of the wide range of cuts made by a four-blade component saw. DACO, Oakland, Calif. Circle 368 on Reader Service card

HANDCRAFTED HARDWARE. Twelve-page catalog illustrates and describes hardware line for a wide range of decor. Ordering information is included. Specialty Hardware, Belwith Int., Los Angeles. Circle 369 on Reader Service card

CLOSET SYSTEM. A specification sheet on shelf and pole supports for use with drywall includes application instructions. Special teeth on self-supporting metal devices can be driven into drywall panels at any point—without locating wall studs—to cut installation time. TECO, Washington. Circle 370 on Reader Service card

ALUMINUM-AND-STEEL FENCE. The advantages of a chain-link fencing of aluminum-coated steel are enumerated in a six-page bulletin. Specifications are given for three grades, earmarked for residential, industrial, and institutional use. American Chain & Cable, Monessen, Pa. *Circle* 371 on Reader Service card

HEAT PUMPS. Indoor and outdoor models—with ratings from 18,000 Btuh to 175,000 Btuh—are shown in a product brochure. Models shown include up-flo, down-flo, and horizontal units in a large range of sizes. Lennox, Marshalltown, Iowa. *Circle 372 on Reader Service card*

PLYWOOD SIDINGS. A packet of five information sheets includes ideas for using plywood specialty sidings. Specifications, technical data, and finishing recommendations, as well as full-color application photos. American Plywood Assn., Tacoma, Wash. *Circle 373 on Reader Service card*

wall suspension units. The units shown in a brochure illustrate several style and combination possibilities, Included: suggestions for practical room dividers. Patina Garray, New York City. Circle 374 on Reader Service card

ORNAMENTAL IRON. Sixteen-page brochure illustrates wrought-iron and cast-iron columns, porch and step railing, window guards, and shutters, Logan, Louisville, Ky. Circle 380 on Reader Service card

FASTENER MANUAL. Engineering standards and application data for tapping screws and other fasteners are discussed in a 64-page guide. An illustrated chart summarizes proper tapping screw to use with a selection of materials, Parker-Kalon, Clifton, N.J. Circle 381 on Reader Service card.

construction shacks. Prefabricated, jalousie-ventilated cabin is constructed of lightweight aluminum. Dimensions: 6' wide, 6' deep, 7' high. Green Hammer Metal Prod., Newark, N.J. Circle 382 on Reader Service card

ELECTRICAL CONDUIT. The advantages of plastic conduit are enumerated in a pocket-size booklet. Included are sketches of fittings, instructions for cutting and joining, the effects of temperature variations on expansion and contraction, and specifications for above-ground installation. NEMA, New York City. Circle 384 on Reader Service card

PLUMBING AND HEATING VALVES. Revised to simplify selection, valve catalog includes complete U-valve line with Teflon plungers. NIBCO, Elkhart, Ind. Circle 385 on Reader Service card New literature continued on p. 146

"Kitchen Aid dishwashers, yes. Callbacks, no."



ver the last 45 years, we've built a lot homes in Cleveland," says Charles yes (right), partner in The Keyeseuhaft Co. "And we've tried many ands of dishwashers."

'But now we're sold on KitchenAid.
u see, we judge a product by how many
lbacks it gives us."

'And with KitchenAid, our callbacks nil."

'This saves our customers a lot of

aggravation. And us, too."

Alex Treuhaft adds, "One of the things we've always promised our customers is trouble-free living and low maintenance. Installing KitchenAid dishwashers is one way of keeping our promise."

In one Keyes and Treuhaft project, Meadow-Wood, 60% of their customers chose KitchenAid dishwashers last year. In luxurious Landerwood, where they have built over 200 homes since 1941, 99% of the homes have KitchenAid dishwashers.

So if appliance callbacks are one of your or your customers' headaches—why not look into KitchenAid dishwashers? For more details, see your distributor. Or write KitchenAid Dishwashers, Department 7DS2, The Hobart Manufacturing Company, Troy, Ohio 45373.

Kitchen Aid
Dishwashers

Products of The Hobert Manufacturing Company, makers of commercial dishwashers and food waste disposers



And no wonder. Thick, solid hardwood all the way through, BondWood parquet is designed for adhesive installation over concrete or wood. It's permanent, too. After years of hard wear, BondWood is restored to original beauty with inexpensive refinishing. There's nothing to replace. And no other parquet on the market offers so many different woods and patterns. Best of all . . . BondWood is just one of the "beauties" in the exciting Harris line. Mail the coupon below for a FREE full color brochure that gives all the facts about versatile Harris Flooring!

HARRIS MANUFACTURING COMPANY DEPT. HH-27, JOHNSON CITY, TENN. Please send me FREE FULL COLOR BROCHURE. NAME COMPANY TITLE STREET CITY	®
STATE ZIP	
Harris FLOORING Hardwood Flooring Since 1898 Parquet • Colonial Plank • Strip • Sta	irwork

NEW LITERATURE

starts on p. 144

WALL SYSTEM. An integrated system of prefinished paneling and architectural doors for new commercial construction or remodeling is displayed in an architectural handbook. Four-color photographs illustrate 14 wood-grain and 34 color panels, accompanying moldings, and how to use adhesive to install the panels without furring. Goodyear, Akron, Ohio. Circle 343 on Reader Service card

steel discusses construction features and specifications for full-flush and seamless doors. Includes frame sizes and profiles as well as a specially assembled frame for transoms and sidelights. Amweld, Niles, Ohio. Circle 344 on Reader Service card

VELOUR WALL COVERINGS. Illustrated brochure displays 18 flocked patterns in a new collection, available in special colorings. James Seeman Studios, Garden City Park, N.Y. Circle 345 on Reader Service card

VANITY CABINETS. Full-color product sheet displays three vanity finishes—white and gold, birch, and walnut—and typical cabinet combinations. Long-Bell, Portland, Ore. *Circle 340 on Reader Service card*

CREATIVE LIGHTING. Recessed lighting fixtures for spotlighting and highlighting draperies or wall textures are shown in a catalog sheet. Silvray-Litecraft, Passaic, N.J. Circle 347 on Reader Service card

masonry sealant. A cement-base sealant—packaged in dry-powder form—for water-proofing masonry and concrete is the subject of a product brochure. Tells how to water-proof foundations and basements, and how to finish concrete to look like plaster. Standard Dry Wall, New Eagle, Pa. Circle 349 on Reader Service card

economy and ease of installation—of circuit-breaker load centers are enumerated in a four-page bulletin. I-T-E Circuit Breaker, Philadelphia. Circle 351 on Reader Service card

STAINLESS STEEL ROOFING. A comprehensive 28-page manual discusses types and finishes for a variety of applications, and presents minimum gauges for specific uses. Tells how to install flat, batten, and standing seam roofs; copings, fascia and gravel stops; gutters, leaders, and downspouts; and expansion joints. Stainless Steel Producers, New York City. Circle 352 on Reader Service card

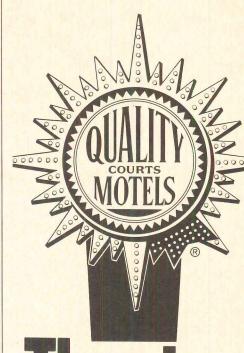
LIGHTING FIXTURES. Illustrated brochure describes line of surface-mounted commercial lighting fixtures for hallways, lobbies, and display areas. Includes photos, specifications, illumination diagrams, and coefficient charts. Peerless, San Francisco. Circle 353 on Reader Service card

AIR CONDITIONERS. Directory lists more than 1,500 units designed for window installation and 184 units designed for through-the-wall installation. Cooling capacity and electrical input for all models are certified by the National Electrical Manufacturers Assoc.

NEMA, New York City. Circle 354 on Reader Service card

SUSPENDED STAIRWAY. Spiral stairway suspended from a structural steel ring is described and illustrated in a four-color brochure. Pease Woodwork, Hamilton, Ohio. Circle 355 on Reader Service card

PLASTIC LAMINATES. Brochure illustrates several applications: countertops, wall cabinets, doors, room dividers. Includes patterns and sheet sizes. Reiss, Lowell, Mass. *Circle 375 on Reader Service card*



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Don't throw the baby out with the bathwater.

There's a funny thing about the American economy. Ask any two economists what makes it tick and you've started a debate.

Because, the simple, ingenuous truth of the matter is this: nobody really knows or agrees on all the influences that combine to give it muscle. Or, where all its weaknesses may lie.

All you'll get agreement on is that it seems to work. It has produced the broadest and most abundant prosperity in all the histories of man...the highest standard of living for the greatest number of people.

The heart of this restless, surging, vital economy is and always has been: free competition. That's what has distinguished it from the managed economies of the Old World...economies managed either by government or by cartel.

Competition has been the sharp spur that has produced

the incredible variety of products and services we have today. It has produced the endless innovations that have made life easier to live. More enjoyable. More rewarding.

It has encouraged manufacturers to build more things... and build them better... and at lower prices. They have to build more and better... and the prices have to be right... or the consumer stops buying. Because, the other side of free

competition is your free choice in the marketplace.

This is the astonishing power of the American consumer. He can make or break the largest businesses with a nod or a shake of the head. He has the choice. He has the ballot of the dollar.

That's why it is disturbing to find people of influence in America today who would like to make both free competition and free choice a little less free.

They may concede that the system has produced some great results but they'd like to "fix it a little."

There are too many kinds of olives, they say. Let's standardize.

Company "A" spends more on advertising than Company "B", and that's unfair competition, they plead. Let's regulate.

Yet, our system was built on exactly the opposite kind of thinking.

Regulation doesn't stimulate competition.

It tends to make all products the same.

How much can you interfere with the competitive economy, which has brought us so many benefits, without damaging it?
The truth is, nobody knows.
The "Little" fixes may someday add up to quite a lot.

Of course, any economy needs some regulation—

but let's be sure that we don't throw out the baby with the bath water.

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