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EDITORIAL

Election-year tactics: Bold ideas that may raise false hopes H&H applauds President Johnson's housing program and Gov. Rockefeller's Urban Development Corp., but sees little chance for the passage of either

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Skimming the cream off today's rental market

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A prime location and a tasteful blend of old and new design are just what tenants want in four successful apartment projects with rents as high as \$600

How to explode the myths about multifamily zoning

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The stackup-housing module: What are its chances?

Its supporters say it will shake up the housing industry. Critics reply that it may be a way to house the poor but won't make sense to homebuilding in general

H&H Round Table report: Other roads to profit

Experts who have traveled these roads discuss the markets for apartments, retirement housing, commercial buildings, rehab projects and mobile homes

NEWS

President sets U.S. housing goal at two million units a year

The Administration's homebuilding program, the most ambitious ever devised, asks an end to 6% mortgage ceilings and proposes new ways to salvage slums

Biggest homebuilders seek a new image for the industry

Eleven giants unite as "the professionals" to promote the interests of big builders and provide more sophisticated leadership for all of housing

Kaufman & Broad reveals its go-for-growth plans

With the housing industry's boldest expansion program, young Eli Broad sets his sights on old Bill Levitt's throne as the nation's biggest homebuilder

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Cover: Rental apartments and townhouses in Marblehead, Mass. Architect: Chapman & Goyette. Owner: Glover's Landing Trust. Contractor: Melanson Bros. Photo: Charles L. Norton.

NEXT MONTH

From California's sharpest merchandisers: the young appeal in model-house presentation . . . How one company sells \$18 million a year in odd-lot housing ... Plastic pipe—the breakthrough may be closer than you think . . . How to clean up cluttered elevations—and make them less costly, too . . . A leading townhouse builder wraps up his trade secrets and sells them to other builders with a guarantee of success . . . Reaction to LBJ's omnibus housing bill

APRIL 1968

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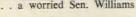
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. . a wondering Sen. McIntyre





Photos: Washington Reporters Inc.



. . and a pouting Sen. Percy

President's housing goal: two million private starts a year

That's ambitious, but President Johnson has never been known for thinking small.

In his message on the cities last month, the President spelled out an over-all national housing strategy for the first time in American history:

• Twenty million private housing starts over the next ten years (including rehab).

Six million partially subsidized starts.
 That means two million private starts a

year, on the average, at a time when homebuilders are elated by 1.5 million a year.

The money. The President didn't try to answer the troublesome question of where the money will come from.

In fact, his new housing subsidy schemes would only exacerbate the problem, for they are purposely designed to foist overall mortgage financing onto the private markets (see following page).

Some of the concepts outlined in the Administration's omnibus housing bill * aim at improving conditions in the mortgage market, however. Specifically, the President has asked Congress to:

• Lift the statutory 6% ceiling on FHAinsured mortgage rates.

• Spin off Fanny May's secondary market operations into a privately held corporation to remove budget restraints on its purchasing abilities.

 Create a new bond-guarantee plan so that Uncle Sam will stand behind private trust certificates representing pools of FHA or VA mortgages.

 Devise a federally guaranteed "cash flow debenture," up to \$50 million in face value, to assure new-town developers adequate front money.

• Permit big business to join in a national consortium so that millions from the corporate treasuries can flow through a limited partnership arrangement into housing, in return for tax depreciation.

Price tag—\$6 billion. The President put a \$10 billion tag on his entire cities message, but much of it included the various poverty-war plans. Secretary Robert Weaver figures the omnibus bill is asking

*The Housing and Urban Development Act of 1968, in 154 pages, S 3029, HR 15624.

\$6 billion in new spending approval from Congress.

Traditional congressional resistance to new subsidy schemes, particularly in a campaign year, will probably be intensified by that price tag.

Most of the funds would go toward new spending for Model Cities and urban renewal during the next two years.

A significant shift in renewal procedures is proposed, and it could speed up the building of new housing in renewal areas. A community has always had to get its entire renewal project approved all at once. And HUD has had to earmark all the money before a community could begin work.

Now HUD proposes a pay-as-you-go basis. A community asks (and would get, presumably) only the amount of federal aid it plans to spend within the current year.

That way, HUD's big renewal budget could be divided among various cities instead of being used up on a few major projects all at once. The change would mean a start on new housing in several renewal areas.

Housing partnerships. One of the President's blue-sky ideas—but an idea with vast potential benefits for homebuilding—is his concept of a national housing partnership.

Suggested by industrialist Edgar Kaiser, who heads a Presidential commission on urban housing problems, the idea was spawned as a vehicle for enticing major corporations into housing.

A national consortium of companies would be chartered as a limited partner-ship under the District of Columbia's corporation laws. The consortium would draw funds from big business and use the money to promote similar groups, on a smaller scale, in the cities. The smaller groups would sponsor housing built by local contractors under conventional techniques. The consortium would pass back the flow-through tax depreciation benefits to the original investing corporations.

The President feels that three purposes could be achieved: Concentration of risk

would be spread over several projects, the rate of return for the first few years would prove beneficial to major corporations utilizing the initial losses as tax benefits and the larger number of projects would permit assembly of top property management talent oriented toward servicing lower-income families.

The LBJ brand. The significant features of this consortium idea characterize what have rapidly become the dominant themes of the Johnson administration:

· Minimize impact on the federal budget.

Maximize reliance on business, particularly top corporate officials.

 Leave initiative and control as much as possible in local hands.

The questions. The bill is a public relations success, but congressional reaction indicated deep skepticism about whether enough additional sources of money can be found to accomplish the President's goals.

And during Senate housing subcommittee hearings last month, Secretary Weaver faced questions far sharper than those directed toward him at such hearings in years past (see photos above).

"Why must you change our idea?" asked Sen. John Sparkman (D., Ala.), whose housing subcommittee had already devised a banker subsidy plan last year.

"What's more important: housing for our low income citizens or partisan politics?" asked Sen. Charles Percy (R., Ill.), whose grandiose Home Ownership Foundation was all but washed out last year by his fellow subcommittee members and pointedly ignored by the President.

The senators weren't unhappy about the goal or the need for the new schemes; they were arguing about methods.

And the redefined battlefield gave Sec. Weaver the upper hand in debates. He knew enough intricate arguments, each backed by technical details, to make his opponents' counter-arguments seem naive. And he didn't hesitate to pour on the details when Sen. Percy got partisan.

—John Nicholson McGraw-Hill World News, Washington

Fanny May's plan to go private: Can the old girl afford it?

Unless Congress lifts the statutory 6% ceiling on interest rates for Fha-insured mortgages, a new all-private Fanny May will have trouble making a profit in its first few years.

Officially, no one is admitting the grim outlook for fear of upsetting Congress. But plans for a private FNMA are based on assumptions that may not hold true.

The stark facts are that the cost of borrowing money keeps rising and yields from 6% mortgages are limited. Result: Fanny May is suffering a profit squeeze that will probably continue for years.

Obviously, Fanny May's President Ray Lapin has several alternatives:

- He can drop the mortgage servicing fee from ½% to 3/8% and save \$5 million a year.
- He can again reduce the price his agency pays for mortgages—but at some point the discounts get too deep to float.
- He can further restrict the kind of FHA-insured mortgages his agency will buy.

Flywheel to the Fed. Limits on these alternatives are imposed by Fanny May's policies, however. Lapin sees this agency as "the flywheel to the Fed's policies." When the Fed tightens money, Fanny May should step into the market strongly to ease the impact on the mortgage sector.

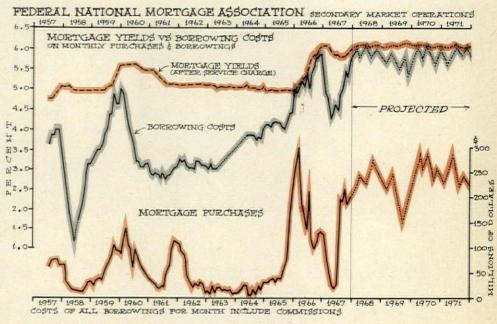
This means Fanny May will be borrowing more when rates are higher, to buy up mortgages issued earlier at a lower rate.

In the past, with one exception in January of 1966 (*chart*), Fanny May has been able to maintain a profit spread between its borrowing costs and the yields from its portfolio.

This profit margin narrows whenever Fanny May is faced with huge offerings—and the outlook assumes Fanny May will continue to buy heavily.

Thus, the assumptions:

- Yields on Fanny May's portfolio, if the 6% ceiling remains, will continue at about 6.19%.
 - · Costs of borrowing will range from



SQUEEZE develops between FNMA portfolio yield and borrowing costs when volume rises.

the current high of 6.10% to 5.80% or lower.

 Current volume at \$200 million or more will continue.

And there are these other assumptions: New federally guaranteed trust certificates, backed by FHA and VA paper, will be accepted in the money markets at rates comparable to present Fanny May notes. A new auction-pricing system touted by Lapin will not noticeably decrease Fanny May's portfolio yield. Fanny May operations—servicing fees, overhead and capital borrowing ratio—will be about the same.

HUD in control. Secretary Robert Weaver and HUD would appoint one-third of the directors on the policy board for a private Fanny May. Stockholders would elect the other two-thirds. But HUD would retain control over dividend policies and the agency's debt-to-capital ratio.

Most of Fanny May's common stock would eventually be held by those servicing the agency's mortgage portfolio. For all new purchases, servicers would have to hold a minimum amount of stock—probably 2% of the mortgages being serviced.

Common stock would be converted to no-par-value, presumably to let Fanny May issue new stock at a price above market value so as to encourage servicers to buy up outstanding stock first.

In part, the value of Fanny May's stock will vary according to the market's view of Fanny May's profitability—and this is one reason why HUD officials are leery about discussing Fanny May's potential.

The grim outlook for the first couple of years, however, has a corollary prediction: When and if mortgage rates begin to drop, Fanny May's huge holding of 6% paper will look mighty sweet—and profitable.

Mortgage men's bonanza—a direct subsidy from Uncle Sam

President Johnson wants more low-income housing, and he's willing to pay the mortgage lender to come up with the cash.

His new lending program leads off his 1968 omnibus housing bill. It hasn't been given a headline label, but chances are it will be known as the banker-subsidy scheme if it gets through Congress.

The novelty of the concept—and the feature that sold it to the President—is that Uncle Sam pays only a small amount each year to repay private mortgagors for putting up the 35-year loans, at market rates of interest, to build the low-price housing.

Less budget impact. That modest annual subsidy is a lot easier on LBJ's budget than the full amount of the mortgage. And it is the full amount that is paid

under the 221d3 scheme for 3% loans.

Congress was frosty toward a subsidy as it began hearings last month, although the Senate Banking Committee had approved virtually the same scheme last year.

The 1% floor. Here is how the subsidy would help a poor family buy:

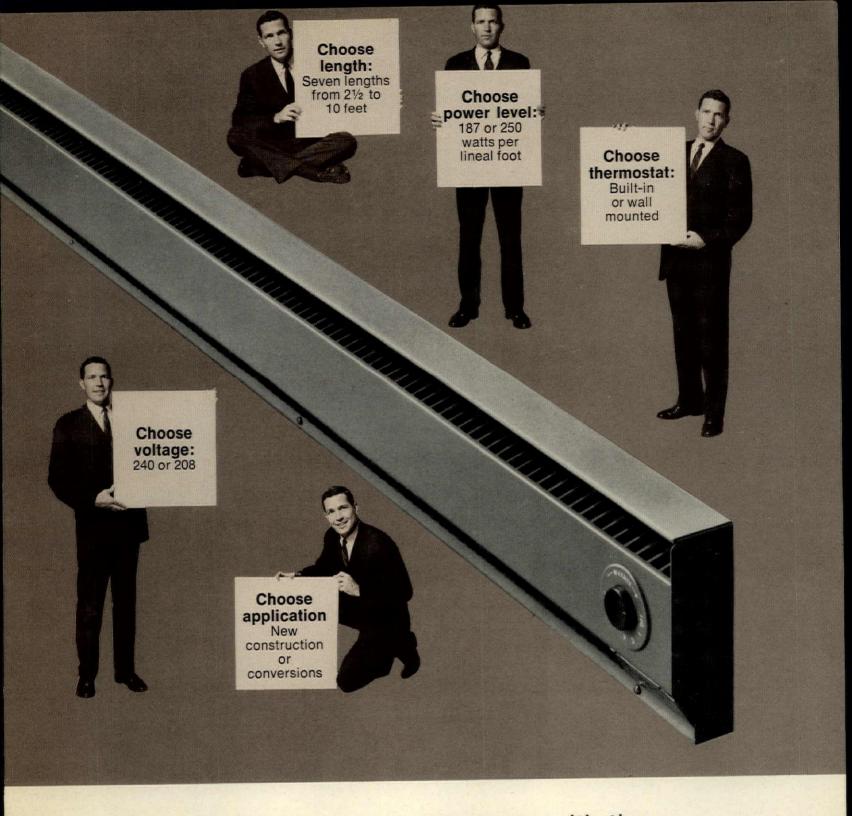
A house would be built to FHA'S 221d3 standards of austerity on speculation. The family would put down \$200, or 3% of the mortgage. Closing costs could be included.

The family would pay 20% of its income to the mortgagor. Meanwhile, he would get a federal subsidy for having made the mortgage loan. The subsidy would amount to the difference between the monthly payments needed to sustain a 1% mortgage and the market-rate mortgage.

If \$100 a month were needed for the market-rate mortgage (principal, interest, taxes, insurance) and only \$80 were needed to sustain the same mortgage at 1%, the mortgagor would get \$20.

If the payment from the family exceeded \$80, the mortgagor would return the excess to Uncle Sam to reduce the subsidy (or, more likely, Uncle Sam would credit it toward the next subsidy payment). The mortgagor could also charge a fee for collecting from the homebuyer.

Conversions. If Congress approves the idea, President Johnson proposes to switch other subsidy schemes into this program. Its companion section would create a similar banker-subsidy idea for rental properties. The 221d3 plan, now at 3%, would eventually be phased in.



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The giants seek to recreate homebuilding in their own image

Eleven of the largest and soundest homebuilders have proclaimed themselves the industry's new breed—"the professionals."

The giants, who include Levitt & Sons and Kaufman & Broad,* declared their independence from smaller builders last month by forming their own organization—The Council of Housing Producers.

"We are not typical homebuilders," says K&B's Eli Broad (see p. 10). "We all have solid companies. Together we produce 22,000 starts a year."

Indeed, under CHP's stiff standards (500 starts a year for three years and a \$10,000 initial fee) no more than 50 of the nation's 40,000 builders could join.

By promoting their "professionalism," the giants hope to attract more attention and money from government and investors.

Giant goal. The group's goal is nothing less than "meeting the challenge of filling future housing needs for people of all incomes."

That goal implies clearly that, in CHP's view, smaller builders with leadership from the National Association of Homebuilders can not meet the challenge.

Faced with that insinuation—and CHP's refusal to affiliate with NAHB—executives of the 47,000-member trade association

* Other companies: Alcan Design Homes (Alcan Alum.); Deane Bros. (Occidental Petroleum); Larwin Co.; Lewers & Cooke (U.S. Plywood); Macco Realty (Penn-Central); R. A. Watt (Boise-Cascade); Perl-Mack; Bert Smokler; and United Homes Corp.



LARWIN COMPANY'S
A leader among giants

reacted to the new group with a mixture of outright distrust and studied disdain. (All 11 giants are NAHB members.)

Thought and image. The CHP will operate as a think tank and image-maker.

So far, the giants have emphasized image-making. The group announced its formation in simultaneous New York and Los Angeles press conferences, and it named Rene Henry, a public relations man and onetime architectural supervisor, as executive secretary. Henry's initial comments were pointed:

"Let's face it. The image of the homebuilder has slipped badly in recent years. But if this group can create a new image, it will help all builders,"

Some members accent CHP's think potential. Says Levitt President Richard Wasserman (see p. 34): "This group has the best brains in the industry."

But the members will have to tread softly. If they pool more than their thinking, the government may ask anti-trust questions that can be tough to answer. What's more, the builders may not do all their thinking out loud—some are competitors.

Lost face. At best, the new group is an embarrassment to NAHB; at worst, a threat to NAHB prestige.

For years NAHB has tried to serve the big builders. But, says one giant, "The more we talked in the NAHB committees the more we wanted to start our own group."

In January NAHB President Lloyd Clarke suggested that California builders Ben Deane and Lawrence Weinberg (photo) head a community builders committee. To the giants that looked like a threat to their freedom. Result: CHP organized, without officers

Says NAHB Executive Director Nathaniel Rogg: "I hope they are sincere when they say they will not become a competing organization." At a closed-door meeting with CHP's Henry, NAHB's executive board was a bit more blunt. Says Henry:

"It was like testifying before a hostile Senate committee."

The Negro as building craftsman—at last the unions move

Major building-craft unions are about to open their ranks to Negro slum dwellers. With the big contractor associations, they have agreed to use slum labor on Model Cities and urban rehab programs.

Their decision, made under government duress, represents a historic breakthrough for American labor. It could mean far more union jobs for Negroes than were possible under any of Big Labor's previous plans to admit minorities to apprenticeship training.

The unions moved after the government, with minority-group prodding, warned in effect that the unions would not get the rehab jobs unless they allowed Negroes to share the work.*

The proposed labor-management pact, which details the full range of working conditions for the multimillion dollar slum-rebuilding program, is being circulated among the 18 craft unions and the Associated General Contractors, the National Association of Home Builders and the National Constructors Assn.

The ten-page Memorandum of Agreement on Rehabilitation Work calls for sharp revision of union work practices and includes a no-strike and no-lockout pledge.

* The Demonstration Cities and Metropolitan Development Act of 1966 specifies "maximum opportunities for employing residents of the area in all phases of the program."

The open door. The pact includes some of labor's first truly meaningful steps to recruit and train minority workers. Trainees would be assigned as laborers or taken into a specific unionized craft for a year; they would then be advanced up the apprenticeship scale.

The agreement assumes that most rehab construction will be done under large-scale contracts covering wide urban areas. But, the memo warns, "The large scale need not preclude bringing small contractors, including Negro contractors, into the program as subcontractors to one or a few prime contractors in a city."

Opposition. Some homebuilder spokesmen object to the idea of a joint union-contractor pact. And the building industry is generally suspicious of a pact provision keying rehab wages to the Davis-Bacon Act's union pay scales.

Builders also point to the union-built projects implied in the agreement, noting that in many of the 75 Model Cities the homebuilder contractors are non-union. The builders object to paying union wage scales in areas that remain unorganized.

Despite the misgivings, the agreement is expected to win the signatures of most construction-industry leaders. The agreement stipulates that its provisions become effective when "federal, state and local governments proceed to implement the declared objectives by appropriate finan-

cial, contracting and administrative actions."

Coverage. The memo covers government-supported or guaranteed rehab on residential structures in urban areas, including demolition, repair, alterations and rehab operations. The agreement also applies to new construction of low-cost housing, up to four stories, if it has government financial support and adjoins rehab projects.

New construction of public buildings, industrial plants, highways, transportation facilities and private apartments is exempted.

The pact was drawn at the request of the President's Committee on Urban Housing, headed by Edgar Kaiser, chairman of Kaiser Industries.

A dozen more communities win Model Cities planning money

The Johnson Administration has added 12 slum neighborhoods to the 63 originally selected for Model Cities planning grants (News, Jan.).

The newcomers will divide \$1.3 million of their own. Here are the latest winners:

Athens, Ga.; Bowling Green, Ky.; Wichita, Kan.; New Bedford and Worcester, Mass.; Flint and Saginaw, Mich.; Butte and Helena, Mont.; Cohoes, N.Y.; Winston-Salem, N.C., and McAlester, Okla.



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B.F.Goodrich Chemical Company

Len Nadel



K&B's YOUNG TEAM tours Los Angeles tract. Broad (third from left), with characteristic shyness, brings up rear. Two of the men joined K&B in 1967.

Stepping out front—Eli Broad's new go-for-growth builders

All by itself, Kaufman & Broad begins the most daring expansion homebuilding has ever seen

Young Eli Broad has his heart set on old Bill Levitt's throne.

The former Detroit accountant is a long way from toppling the king of homebuilding, who outbuilds Broad 2-to-1.* But now Broad has kicked off the boldest expansion in industry memory.

Under Broad's plan his Kaufman & Broad will grow 25% a year-even if it does not add a single new market for the next three years. Says a K&B executive: "That 25% is a shoo-in."

In fact, K&B will add at least one new market a year and will acquire large companies in the housing field.

Broad's company is recognized as the nation's largest independent homebuilder now that Levitt has merged into International Telephone & Telegraph. But Broad envisions an even larger role as "the industry's pacesetter." And he is certain his publicly held company will reach that status under its own power. Says Broad, who is only 35:

"We do not need a giant merger partner to grow. And I'm not ready to retire."

Moving out. In the last ten months, K&B has made these expansion moves:

· Hired 13 new executives, increasing its management team to 33 persons. Four new men had run their own homebuilding companies. Average age of the new executives: 33.

*Levitt has outbuilt K&B by about 2 to 1 for six years, 1967 unit volumes: 5,200 vs. 2,450.

- · Raised \$12 million to finance growth, at rates as low as 51/8 %. No homebuilder has ever paid so little for so much.
- · Entered the Paris market as the second major American homebuilder in Europe. (Levitt is the other.) And this month K&B invaded a new U.S. market-San Jose, Calif.
- · Started seeking a mobile home maker with sales of at least \$10 million-for acquisition.
- · Realigned top management to free Broad for long-range planning, particularly in Europe. Vice President Eugene Rosenfeld takes over day-to-day management of K&B's 32 U.S. subdivisions.

From big to bigger. Those moves were masterminded by builder-businessman Broad, who has already made K&B the industry's fastest-growing company. In his view, the story of K&B's 11-year growth offers this lesson for all builders: From now on, the strong will get stronger.

From the very beginning in 1957, when Broad teamed with small builder Don Kaufman, Broad has run K&B with a professional touch (box, top of facing page). He shunned speculative building, refused to stockpile land and stuck to readily available FHA financing. And he was one of the first builders to branch out across the country to soften the impact of local boom-or-bust markets (sales chart, oppo-

Results were spectacular. From 1958 to

1963, when K&B posted a \$1.2 million profit on sales of \$31.8 million, profit increased 35% each year.

But Broad wasn't satisfied. He thought he knew a shortcut: acquiring other builders who were rich in management talent. By combining the balance sheets, Broad figured he could borrow both the money to finance the merger and the working capital to operate the companies. Typical merger loan: \$5 million.

There was one problem, however. All the builders up for sale were shaky. After looking at three companies, K&B nearly acquired Lusk Corp. in 1965. Five months after K&B dropped the deal, Lusk went bankrupt (H&H, Jan. '66).

Says K&B's treasurer-secretary, LeRoy Golman: "Lusk would have provided a solid management base. But we needed its stockpiled land like a hole in the head."

Low point. After the close call with Lusk, K&B had to shelve its expansion plans to concentrate on "getting our own house in order"-as one executive puts it.

Beginning in mid-1964, K&B had encountered a run of bad luck-labor shortages in Detroit, strikes in Phoenix, floods in Los Angeles and start-up delays in its new Chicago branch.

Worse, K&B's managers were all busy closing out its government construction arm, which had become unprofitable. Says Broad: "The planning time we lost set us back two years."

Profit plunged to \$665,837 in fiscal '65. "A lesser company would never have survived that year." says Broad.

In 1966 the Chicago and Los Angeles branches shook free of the doldrums. By the fiscal year's end in November K&B posted a record \$1.5 million profit on \$43.3 million sales.

New expansion. Broad had had the foresight to arrange his 1967 mortgage commitments early and to continue to shun California's s&Ls in favor of FHA financing. After the credit crush of 1966 left most builders begging for money, he went into 1967 sitting pretty.

"I got a gut feeling then that K&B was better than ever," says Rosenfeld.

So did Broad-and others. Some of big business's biggest men began inviting Broad to lunch to discuss whether they could gobble up K&B. "I didn't turn a deaf ear," says Broad, "but . . .

To go it alone, Broad knew K&B needed seasoned homebuilders to run its branches. When tight credit continued to restrict homebuilding in 1967, he reasoned that ambitious young builders would sense a futility in struggling on their own. He was right.

Broad retained two talent-finding agencies and launched "the biggest talent search in homebuilding history." And the most costly: \$120,000.

Broad also didn't spare money when he found a good man. To get one builder, Broad bought up all his holdings-some developed lots.

But money was not all that attracted builders to K&B. "Companies like K&B are the wave of the future," says assistant division manager Lon Rubin. "My job, with its responsibility, is more challenging than running my own company."

Borrowing cheap. The K&B balance sheet has consistently shown a 1.6-to-1 debt ratio-less than half a normal builder's 4-to-1 level. So Broad knew he could raise \$12 million for expansion. The question was: How could K&B secure the lowest possible interest?

Broad found a two-step answer. First, he floated a 20-year convertible debenture to raise \$5 million at 51/8 %. In bankers' eyes, that raised K&B's shareholders' equity to a healthy \$12.7 million. So Broad was able to borrow \$12 million from banks. including \$6 million in revolving credit and \$6 million at the prime rate.

To further broaden its financial base, and therefore its borrowing power, K&B has taken two other steps: It has split its stock twice, 3-for-2 each time, in the last 11 months. And Broad and Don Kaufman, who personally owned two-thirds of K&B, have traded off 22% of the company's shares to four mutual exchange funds.†

The moves brought K&B a step closer to a listing on the New York Stock Exchange-a goal of Broad's since the company went public in 1961. The stock now trades on the American Exchange.

Finally in December of last year-with continued on p. 12

† The partners sold 207,000 of their 556,528 common shares after K&B's first 3-for-2 split.

Eli Broad is quiet, unassuming and oh, so shrewd

Eli Broad doesn't seem impressive. He looks shorter than his 5' 11" and even younger than his 35 years.

But his reputation among homebuilders is impressive indeed. Says a competitor: "He is the sharpest businessman I know."

Broad has amassed a \$10.7 million fortune in 11 years of homebuilding by demanding the most from every dollar and every employee.

He is always thrifty-never cheap. "Eli runs a tight ship," says a builder whose own offices spill over two full floors of a large building. By contrast, K&B's Los Angeles headquarters is



Always thrifty-never cheap

crammed into the tiny corners of two floors of a nearby building. Says Broad: "Staying in crowded quarters is one way to keep your staff down.'

But Broad may be moving anyway. His rent has been raised.

The master manager is a demanding boss-but never a bully. "He knows how to get his top executives so wound up," says an employee, "that they hop around here for 12 hours a day. That pace gets contagious, even among the secretaries."

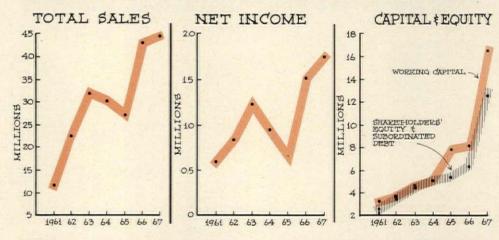
With wonder in his voice, a new employee adds, "I have four jobs already. And I know that when I finish one, he will give me two more."

Broad reacted with a smile: "Good for him. He understands us."

And above all, Broad understands his men-instinctively. He has surrounded himself with fiery young tigers who complement his own lowkey personality.

Earlier this year a new junior executive got into a rip-snorting disagreement with Eli. Finally Broad prevailed-"I am the president of the company." After the employee calmed down, Broad said, "I admire temperament-it shows that you care."

Money: K&B's rapid financial growth from '61 through '67



Sales: K&B's market-by-market growth from 61 through 67

	1961	1962	1963	1964	1965	1966	1967	1968E
Detroit Units	\$6.6M 540 (8)	\$10.3M 824 (8)	\$13.7M 1,015 (10)	\$17.5M 1,167 (10)	\$13.5M 794 (12)	\$13.6M 805 (12)	\$11.8M 650 (10)	\$15.7M 830 (11)
Phoenix Units	\$3.9M 339 (3)	\$5.0M 435 (4)	\$3.5M 318 (5)	\$1.8M 138 (5)	\$1.9M 146 (4)	\$2.6M 200 (4)	\$3.6M 200 (5)	\$3.8M 200 (5)
Los Angeles Units			\$5.7M 456 (3)	\$5.9M 460 (3)	\$6.0M 415 (5)	\$13.5M 617 (7)	\$17.5M 950 (10)	\$22.8M 1,200 (10)
Chicago Units					\$4.7M 261 (2)	\$13.7M 761 (3)	\$11.8M 650 (6)	\$15.7M 830 (7)
New Regions . Units								\$0.0 0 (2)
Total Units: Average Price:	879 (11) \$11,950	1,259 (12) \$12,150	1,789 (18) \$12,800	1,765 (18) \$14,275	1,616 (23) \$16,150	2,383 (26) \$18,200	2,450 (31) \$18,240	3,060 (35) \$19,000
tal House Sales:*	\$10.5M	\$15.3M	\$22.9M	\$25.2M	\$26.1M	\$43.4M	\$44.7M	\$58.0M

Sales of region stated in millions of dollars; ()-Number of locations in region. E-estimated. *Excludes government housing construction of \$26.6 million from 1961 through 1965.

Kaufman & Broad aims for growth . . . continued

money and management locked up—Broad sent one of his top men, Robert Zisette, to Paris. So far Zisette's progress has been astonishing, says Broad.

Eight French real estate agents have helped him line up 40 land parcels. By mid-April he will have enough land for at least 300 houses, and by fall he will begin construction.

Tomorrow. Company executives are sanguine about Europe. Broad already has his eye on "promising German markets." Says Treasurer Golman, a conservative optimist: "Europe could account for 50% of our income in another five years."

Over here, K&B is looking forward to 500 units in its new San Jose market by 1969. Best bet for the company's next U.S. market: central New Jersey.

And after only three years of development, K&B expects its 18 cable-television franchises to contribute 10% of the company's income in fiscal '69. It bought an antenna company in 1965.

The only missing piece in this growth puzzle is an acquired company. And K&B could acquire a multi-site mobile home maker this year.

"In the beginning, I want the company to earn about \$500,000 after taxes just building mobile homes," says Broad. "Eventually, I want to experiment with component construction for my houses. I think the day will come when all housing is built off the site—and I want to be ready."

—Frank Lalli

Maury Levin ELEVATION ELEVATION ELEVATION FAM KIT FAMILY GARAGE LIVING GARAGE LIVING LOWER LEVEL LOWER LEVEL LOWER LEVEL

House design is K&B's weakness—but it's improving

Mar. 5 Chng.

COMPANY

Says Eli Broad: "We haven't stayed above our competition." So Broad hired architect Fred Dayan to redesign K&B's 40 mediocre models into 20 outstanding homes. To start, Dayan turned the house at left into the

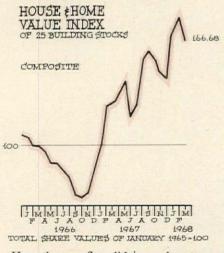
Mar. 5 Chng.

\$26,000 model at right. He A) extended garage to create entryway, B) put in glass wall for feeling of space, C) centralized plumbing, D) widened upstairs hall and E) added optional study bedroom.

COMPANY

Housing shares down 8%

Here's House & Home's index:



How the top five did in each category:

rao eare cop			
	Mar. '67	Feb. '68	Mar. '68
Builders	125.95	230.68	225.86
Land develop.	176.08	279.59	244.11
Mortgage cos.	146.56	240.18	251.55
Prefabbers	101.47	186.89	168.01
S&Ls	108.35	127.81	109.48

A CORRECTION

Last month's article, "Housing—Wall Street's New Sweetheart," stated that General Builders Corp. lost \$466,000 in 1967. The loss came in 1966. The company earned \$150,000 in 1967.

HOUSING'S STOCK PRICES

COMPANY

	Bid/ Close	Prev. Month
DILLI DING	Ciuse	MOILLI
BUILDING	1 00	00/
Capital Bldg. (Can.)	1.60	-20¢
Cons. Bldg. (Can.) Dev. Corp. Amer	23/4	+15¢
Edwards Inds.	21/2	- 3/8
First Hartford Rity	73/4	- 11/4
First Nat. Rlty.b	11/8	- 3/4
Frouge.	41/2	+ 1/2
•General Bldrs.b	41/8	
·Kaufman & Bd.bx	245/8	-141/4
·Kaufman & Bd,bx Key Co	53/4	+ 1/2
(Kavanagh-Smith)	Caralla .	
Nationwide Homes	23/4	- 1/8
·Pres. Real. A.b.	12	***********
Sproul Homes	25/8 33/4	- 1/8 - 3/4
U.S. Home & Dev	56	+ 33/4
-Jim Walter c	7	+ 374 - 2
Western Orbis b	31/2	- 1/4
(Lou Lesser Ent.)	072	/4
(Lou Loscot Line)		
PREFABRICATION		
Admiral Homes	1/4	
-Albee Homes	13/4	- 1/8
Continental Homes	53/4	- 1/8
Inland Homes b	201/2	$-15\frac{78}{2}$
Natl. Homes A.g.	51/8	+ 3/8
-Scholz Homes -Swift Industries	11¾ 3½	$-\frac{3}{4}$
· Swift Hidustiles	378	- 1
S&Ls		
American Fin	251/2	- 51/2
Calif. Fin.º	51/2	- 1/8
Empire Fin	9 1/8	$-1\frac{3}{8}$
Equitable S&L	15%	- 1/8
Far West Fin.	91/2	- 21/8
·Fin. Fed.	173/8	- 21/8
First Char. Fin.	251/2	- 51/8
First Fin. West	81/2	+ 1
First Surety	41/g	- 3/4 - 3/8
First West Fin	31/4	- 1/2
Gibraltar Fin.	30	- 1/4
-Great West Fin.	161/8	- 11/2
Hawthorne Fin	83/8	- 3/8
·Imperial Corp. c	73/8	- 11/2
·Lytton Fin. c	63/4	- 11/4
Midwestern Fin.b.	51/4	- 5/8
Trans-Cst. Inv.	3/4	- 31/2
Trans World Fin.	11	- 13/4
Union Fin	121/2	+ 1
United Fin. Cal	131/2	- 3 ³ / ₄ - 2 ⁵ / ₈
moadd Fill.	1074	- 478

	Bid/ Close	Prev. Month
MORTGAGE BAN	KING	
·Advance		+ 3/4
-Associated Mtg.	81/4	+ 1/4
Charter	83/4	+ 33/4
-Colwell		- 11/2
-Cont. Mtg. Inv.		+ 4
Cont. Mtg. Ins.		- 5/8
FNMA		- 51/2
First Mtg. Inv.		- 1/8
Kissell Mtg b	63/4	- 11/2
Lomas & Net. Fin	4 1/8	+ 1/8
-MGIC d	721/8	+ 23/8
•MGIC d Mortg. Assoc	71/2	***********
Palomar Mtg.	41/2	- 1/2
Palomar Mtg. Southeast Mtg. Inv	51/8	$+\frac{3}{8}$ $-2\frac{3}{8}$
United Imp. & Inv.b	9	$-2\frac{3}{8}$
LAND DEVELOPM	IENT	
All-State Prop		-15é
American Land	1/8	- 3/8
Arvida		- 1/8
Atlantic Imp		1 1/4
Canaveral Int.b		- 13/4
Christiana O.b.		- 11/4
Cousins Props		+ 51/4
Crawford	35/8	+ 1/8
Deltona Corp.b	181/2	- 11/2
Deltona Corp.b. Disc Inc.	31/8	+ 1/4
Fla. Palm-Aire	23/4	+ 1/4
Forest City Ent.b		+ 3/4
Garden Land		- 1/8
-Gen. Devel.	151/8	- 1/2
-Gulf American b	. 71/8	- 11/4
-Holly Corp.b	3	- 3/8
Horizon Land	103/8	- 3/4
Laguna Nig.	., 51/2	- 3/4

	Close	Month
Major Rity	43/4 185/8	$+1\frac{3}{8}$ $-6\frac{7}{8}$
So. Rity. & Util.b. Sunasco e	55/8	- 1 1/8 - 5/8
DIVERSIFIED CON		
City Invest.		
Rouse Co.	14	
Tishman Rlty.		$+2 \\ -5\%$
MOBILE HOMES		
Con Chem Co.b.		- 1/8
DMH (Detroiter) b		- 1
Guerdon b		+ 1/2
Redman Indus.b		+ 11/2
Rex-Noreco a		-
Skyline b	57 1/8	+ 25/8

Mar. 5 Chng. Bid/ Prev.

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

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

SHORT-TERM BUSINESS LOAN RATES

cent per year LOAN SIZE (000)	N.Y. City	7 other North- east	8 North Central cities	7 South- eastern cities	8 South- western cities	4 West Coast cities
\$1-9 10-99 100-499 500-999	6.37 6.22 5.95 5.70 5.63	6.59 6.69 6.42 6.19 5.95	6.67 6.46 6.18 5.87 5.74	6.46 6.25 5.96 5.75 5.68	6.61 6.36 6.09 5.95 5.82	7.08 6.79 6.34 5.89 5.76
Nov. rates in Fed	. Res. Bu	lletin, Jan. 19	68.	NEWS d	continued	on p. 16

How Kwikset helps builders sell what they build.

In today's housing market, every bit of extra promotion helps turn a prospect into a purchaser

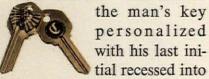
The merchandising aids Kwikset has for builders are no substitute for a well-sold quality product in a good location. But they do provide that extra touch that helps set you apart from competitors.

Whether you specify Kwikset locksets on

prehung doors or purchase them direct, here is a sampling of some of the extra sales help you can get from Kwikset:

Kwikset Gold Key Presentation Sets. These handsome key sets will establish lasting good will between builder and homebuyer.

"His and Her" sets feature



the key bow; the woman's key is studded with rhinestones.

Emblematic sets devote the



entire bow of each gold key to a corporate symbol or development name in raised lettering surrounded by a baked-in color.

Custom key sets are created specifically for volume developments with the bow of each key being the logotype of that development.



Kwikset Move-in Portfolios. These handsome, gold-embossed folders are available at no cost and are imprinted with your trademark. Pockets on the inside provide space

for the myriad documents that go with each new home.



Kwikset Key Folders. In addition to provision for keys, these folders contain information on the different lockset

functions, tips on home security and the Kwik-

set guarantee. If you have specified Kwikset's exclusive Protectokey® system, brochures imprinted with tract name and an easel-back dis-





play spell out the advantages and benefits of this extracare feature.

Kwikset Sales Office Literature. In all materials, Kwikset's editorial approach says, in essence: that the builder of these homes has selected America's largest-selling residential locksets is indicative of the quality built into every house.

Quite frankly, whether you do or do not use Kwikset is not going to make or break a sale. But—also quite frankly—the combination

of Kwikset's superb selection of designs and finishes, guaranteed materials and craftsmanship, overwhelming brand-name acceptance and the kind of merchandising back-up Kwikset gives to builders is not going to hurt, either.

Shown here is the Emblematic Gold Key Presentation set developed by Kwikset for Macco Realty Company, one of the nation's largest developers of planned residential communities.



America's Largest Selling Residential Locksets

Kwikset Sales and Service Company Anaheim, California A Subsidiary of Emhart Corporation





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15



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U.S. and forest industry move to curb lumber price rise

The U.S. government has threatened—with the support of the forest industry—to put a ceiling on the Pacific Northwest's runaway log exports to Japan.

The effect should be to moderate the rise in prices charged for softwood logs and homebuilding lumber sold out of the great Northwest timberland.

The U.S. issued the warning at a Tokyo conference of government and lumber dealers. The result: Japan agreed to buy fewer logs.

Says President George H. Weyerhaeuser of the giant Weyerhaeuser Company: "We've made a good beginning."

The problem: The Northwest will ship 2 billion board ft. of timber to Japan's voracious homebuilding industry this year. That's up from a mere 359 million ft. in 1961, when Japan came into the Northwest's market. Shipments soared to 1 billion ft. in 1966, and to 1.57 billion last year.

Such ravenous buying took timber prices to treetop level. The fee to cut and haul in the Northwest's forests was \$18.50 per 1,000 ft. in 1961. It was \$31.50 in 1966. The price of logs shipped to Japan in fourth-quarter 1966 was \$84.35 per 1,000 feet. A year later it was \$95.67.





WEYERHAEUSER

"At federal timber auctions," says Executive Vice President James R. Turnbull of the American Plywood Assn., "the Japanese are always there. They always stay around to the very end, outbidding everybody."

One result: Despite slack demand in the American homebuilding market, the price of lumber for an average single-family house has climbed \$230 since 1963. The U.S. still builds almost 1 million houses a year, so the increases are costing American homebuilders \$230 million annually.

That isn't all. Twenty-six plywood mills have closed on the Pacific Coast in two years, eliminating 4,200 jobs. And scores of sawmills have gone bankrupt.

A solution. The American delegation to Tokyo was headed by Eugene M. Braderman, deputy assistant secretary of state for commercial affairs. He told the Japanese pointedly:

"There are mills that have closed. Others tell us they will have to close this year unless assurances are forthcoming in the next few weeks that changes can be expected that will ease the cost-price squeeze."

For the near future, at least, the Japanese indicated they would cooperate. They will import more finished wood products, fewer logs. For Braderman's meaning was clear: Unless such steps are taken, the U.S. will limit log exports.

Japan has also been building a million houses a year, but it bought only 40 million board ft. of finished lumber from Washington and Oregon last year. That compares with 250 million from Alaska and 500 million from British Columbia, both of which refuse to export logs.

"You can bet the Japanese will strike back," says Weyerhaeuser. They will, he thinks, speed up current negotiations with Russia for joint development of Siberian timberlands. And Japan is already investing in logging operations in Alaska.

—Marvin Petal McGraw-Hill World News, Tokyo

A suburb profits from the townhouses that it fought to bar

The thesis that multifamily units are always detrimental to single-family strongholds has been disproved in Chevy Chase, Md.

A two-acre townhouse project built by Gerald M. LaVay increased tax revenue from \$1,600 on four single-family houses to \$16,000 on 20 townhouses. It also enhanced the market value of surrounding properties and improved the community esthetically.

The townhouses emerged after a threeyear rezoning battle between LaVay and the area's property owners.

(For arguments builders are using to get multifamily zoning, see p. 84.)

Upon completion of the first section of 14 townhouses, LaVay won an "outstanding permanent improvement" award from the Bethesda-Chevy Chase Chamber of Commerce. But the former Long Island builder is equally proud of the acknowledgement by his former antagonists, the neighborhood property owners, that his townhouses have improved their area.

LaVay estimates that the dispute cost him \$22,000 in litigation.

The townhouse approach. LaVay bought the property for \$150,000. The price included four existing houses.

Montgomery County's original R-60 zoning would have restricted LaVay to building four more single-family houses on the two acres, but a new zoning ordinance (R-T) adopted in 1963 permitted townhouses under one of two strict conditions:

• The townhouses must buffer single-



CREST TOWNHOUSES in Chevy Chase, Md.

family homes from higher-density housing.

 The tract, because of topographical or other conditions, must be economically unfeasible for single-family houses.

The opposition. The antagonists, led by Friedrich P. Knudsen, opposed townhouses on two grounds:

- That higher-density housing means more traffic and crowded conditions.
- That the appeal of a townhouse is to those who are not interested in maintenance. Result: The area would deteriorate.

LaVay first approached the County Parks and Planning Commission, which to his chagrin promptly advised the County Council to deny the rezoning application. It's reason: Townhouses were out of keeping with the status quo.

But LaVay won the unanimous approval of the council. With the aid of attorney Joe M. Kyle, who also represented LaVay in the court battles, the builder showed that it was economically unfeasible to build single-family houses on the tract because of rocks.

But the battle was far from over.

Counterattack. To bar the townhouses, Knudsen and 100 property owners went to court. They lost twice, once in the Montgomery County Circuit and again in the Court of Appeals.

Knudsen and his colleagues paid \$2,000 for litigation, but most are now pleased with LaVay's efforts.

Some, like Knudsen, qualify their appreciation. "There's no question that the townhouses are attractive," he says, "but I would prefer that they weren't there."

Success. Lawrence J. Simmons, legal adviser for the antagonists and himself a property owner, wishes there were more builders like LaVay: "If we had known at the onset what we now know about the townhouses, I don't think any of us would have opposed it.

The 20 townhouses were designed by Patterson & Worland, architects.

The townhouse project opened in March 1967 with seven condominiums priced at \$47,500 per unit. LaVay has since increased the tab by 25%, to \$59,500.

For the future LaVay is hopeful but concerned. He has bought 1½ acres adjacent to his development and will again ask for townhouse rezoning.

A new County Council has been elected, however—a council not particularly oriented toward builders—and it could pose some of the same old obstacles.

LaVay hopes not. The benefits of his first townhouses are widely recognized now, and he feels he has made his case.

-PETER TOMARKEN



FLOAT-AWAY DOOR COMPANY

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Congress attacks a major scandal in second-mortgaging

The first thing every Congressman sees each morning is The Washington Post. So, when The Post homes in on a scandal in the home-improvement and second-mortgage industries, you can expect action. Here's what's happening:

· President Johnson has called for new authority for the Federal Trade Commission to crack down on fraudulent home-

improvement operators.

• Sen. Warren G. Magnuson (D., Wash.), chairman of the Senate Commerce Committee, has introduced legislation to create a "special FTC task force devoted to rooting out home-improvement frauds."

• Rep. William T. Cahill (R., N.J.) has amended the House-approved truth-inlending bill to eliminate the protection against contract fraud enjoyed by "holders in due course," the big lending institutions that buy home-improvement and secondmortgage loans from contractors.

• Sen. Joseph D. Tydings (D., Md.) has introduced and held hearings on bills that would impose severe curbs on homeimprovement and second-mortgage opera-

tors in Washington.

• The Justice Department, through a special grand jury, has won fraud indictments against officers of a now-defunct home-improvement firm, and more indictments may be on the way.

Industry self-policing. The industry is also taking steps. Under auspices of the National Remodelers Assn., a group of remodelers and manufacturers formed the Committee for Joint Action to improve the image of the industry and, in effect, "clean house before the feds step in and clean it for us." It has \$240,000 from manufacturers for its effort.

The Post's exposé concentrated on two Washington home-improvement concerns, both now out of business: Monarch Construction Co. and Custom House Construction Co. Custom House's President Harvey Davis, Vice President Jack Shulman and office manager Paul S. Glaser await trial on charges that they defrauded 56 Washington homeowners, mostly Negroes, through second-mortgage schemes. Some were on the point of losing their homes.

The victims. Custom House reportedly employed batteries of women solicitors to telephone low-income homes in Negro sections, with instructions to hang up if they thought a white person had answered or if the person responding was a renter rather than an owner.

Prospects' names were passed on to salesmen. In lawsuits, homeowners swore that the face value of their contracts was often twice the price they had been quoted, that papers were notarized without their being present, and that they later discovered that they had signed second mortgages on their homes rather than simple promissory notes.

Monarch reportedly obtained mortgage loans insured by FHA through a reputable bank, usually in the amount of \$35,000,





MAGNUSON

plus financing charges of \$837. The final total was \$4,337, maximum allowed by FHA under its Title I home-improvement

Big lenders' protection. Custom House, Monarch and at least six other Washington home-improvement firms, according to court records and testimony at hearings conducted by Sens. Tydings and Magnuson, sold their paper locally or to the giant Atlas Financial Corp. of Philadelphia at discounts ranging from 40% to 60%. Atlas is a subsidiary of Sunasco Inc. of Beverly Hills, Calif.

Atlas and other giant lenders escape responsibility for satisfactory completion of the work under the "holder in due course" immunity granted to the second holder of paper in all states except Massachusetts. They can legally collect no matter what happens and, in most cases, can foreclose on a second mortgage without even notifying the owner directly.

The Tydings bills would 1) require a court order prior to foreclosure, 2) elimi-

nate protection from encumbrances for the "holder in due course" of paper, 3) grant the homeowner three days in which to cancel an order he had placed with a door-to-door salesman and 4) apply maximum finance charges of 20% on the first \$500 and 16% on anything over \$500. But the bills would apply only in Washing-

Tydings expects favorable Senate action on most of his bills. He is far less optimistic about the House this year.

Nationwide reform. Rep. Cahill's amendments to the truth-in-lending bill would afford the nation's homeowners much the same protection envisioned for the district in the Tydings package, including elimination of "holder in due course"

There is only one difficulty. Cahill's amendments were simply incorporated into the House's truth-in-lending bill without discussion during debate on the measure. The question of such curbs had not even arisen when the Senate passed its own version of the truth-in-lending bill last year, so the Cahill plan may have to wait another year for congressional approval.

Sen. Magnuson, who describes fraudulent home-improvement practices as "approaching epidemic proportions," has introduced a bill that would give the consumer one day to cancel his contract.

-HARRY VANDERNOOT McGraw-Hill World News, Washington

NEWS continued on p. 22

HOMEBUILDERS' MORTGAGE MARKET QUOTATIONS

Reported to HOUSE & HOME in week ending March 16.

City	Disco MinDo FNMA×y		der	PHA 207 Apts., Discount	Comm. banks, Ins. Cos.	ntional Lo Savings banks, S&Ls 80%	Savings banks, S&Ls Over 80%	Construction Loan Rates Interest+fees All lenders
Atlanta	6%	6%		51/4 %	75%			7+1-2
	6½		Down 1	a	634-7	634-7	7-71/4	CANCEL SECTION AND ADDRESS OF THE PARTY OF T
Boston	51/2	4	Steady	a	63/4 - 71/4	7-71/4	7-71/4	634-7+1-11/2
Chicago	6	5–6	Steady	7a	61/2	61/2-63/4	7	7-71/2
Cleveland	6	6-7	Steady	a	61/4-7	61/2	63/4+1	7+1-2
Dallas	61/2	51/2-61/2	Down 1/2	а	7	63/4	7-71/4	7+1
Denver	6½	5	Down 1-2	a	63/4	63/4-7	7-71/4	7+1-11/2
Detroit	6	5-6	Down 1/2	a	63/4	63/4-7	7+1-2	7+1-2
Honolulu	61/2	7	Down ¾	a	7-71/4	7-71/2	A	71/4-73/4+1-3
Houston	61/2	51/2-6	Down ½	а	63/4-7	63/4-7	7-71/4	7+1½
Los Angeles	6½	6½	Steady	а	61/2-7	61/2-7	63/5-71/2+1-2	61/2+7-1-2
Miami	61/2	61/2	Down 1/2	a	7	63/4 7	7-71/4	7-71/4+1-2
Minn,-St. Paul	6	51/2-6	Up 1/2	a	63/4-71/4	7	7-71/4	7+1
Newark	51/2	5	Steady	a	6+1	6+2	6+2	7-71/2+11/2
New York	51/2	3-4	Steady	a	6+3-4	6+2	6+2b	7+11/2
Okla. City	61/2	51/2-7	Steady	a	63/4+1	61/2+1	63/4 +1-2	7+1-2
Philadelphia	51/2	5	Steady	а	6	6-7	7ь	7+11/2-3
San Fran.	61/2	5-61/2	Down 1	a	63/4	63/4	7-71/4+11/2	63/4+11/2-2
St. Louis	6½	5-7	Down 1	a	61/2	63/4	7-71/4+1-2	7+1
Seattle	6½	6	Down 1/2	a	7-71/4	63/4-7	71/4-71/2	7-71/4+1-2
Wash., D. C.	6	6-7	Steady	7b	7	7	R.	7+2

* 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; 20% of balance.

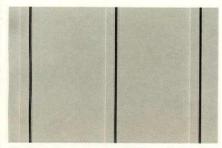
Footnotes: a—no activity, b—limited activity, c—Net yield to investor of 6% mortgage plus extra fees, w—for comparable VA loans also. x—FNMA pays ½ point more for loans with 10%. y—discounts quoted are net after seller pays ½% marketing fee and ½% adjustment for stock purchase. Seller must pay 1% of mortgage for stock calculated in \$130 units, of which \$30 is contribution to FNMA capital and \$100 is for a share trading at about \$70.

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 E. O'Neill, vice pres., Jay F. Zook, Inc.; Dallas, M. J. Greene, pres., Southern Trust & Mortgage Co.; Denver, Clair A. Bacon, pres., Mortgage Investments Co.; Detroit, Sherwin Vine, vice pres., Mortgage Investments Co.; Detroit, Sherwin Vine, vice pres., Colitizens Mortgage Co.; Phonolul, H. Howard Stephenson, vice pres., Bank of Hawaii; Houston, Everett Mattson, pres., T. J. Bettes Co.; Los Angeles, Christian M. Gebhardt, vice pres., Colwell Co.; Minmi, Lon Worth Crow Ir., pres., Lon Worth Crow Co.; Minne-apolis-St. Paul, Walter C. Nelson, pres., Eberhardt Co.; Newark, William W. Curran, vice pres., Franklin Capital Corp.; New York, John Halperin, J. Halperin & Co.; Oklahoma City, B. B. Bass, pres., American Mortgage & Investment Co.; Philadelphia, Robert S. Irving, vice pres., Kardon Investment Co., St. Louis, Charles A. Keller, vice pres., Mercantile Mortgage Co.; San Francisco, John Jensen, vice pres., Bankers Mortgage Co.; California; Seattle, Kirby D. Walker, vice pres., Continental, Inc.; Washington, James C. Latta, Sr. vice pres., Associated Mortgage Cos. Inc.

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In a Washington slum—an acid test for nonprofit housing

The Clifton Terrace apartments are nobody's idea of a dream house. They are 270 units of crumbling plaster, corroded plumbing, occasional heat and lively vermin in Washington's Cardozo ghetto.

In 1915, new, they were more than fashionable. In 1968 they are the end of the line for welfare cases, the jobless, the fatherless families. But they are also a symbol of hope for a new type of housing enterprise that could be an answer to these problems-if it works. For Clifton Terrace is about to be taken over by the Housing Development Corp., a nonprofit citizens group created with federal aid to furnish decent, low-income housing.

Clifton Terrace could answer these questions for any number of crowded American cities: Is it economically feasible for nonprofit corporations to provide adequate housing? And can the corporations do this for low-income residents living in slum buildings under absentee landlords?

The Clifton Terrace project is at a crossroads. HDC has survived its own amateurish mistakes, some bureaucratic slowness at FHA and charges by the financial weekly Barron's that HDC directors were Communist sympathizers or black-power militants. With these peripheral issues settled, the main question is whether a citizen corporation like HDC can do what it says it can.

Decline and rescue. The apartment complex at 13th and Clifton Streets NW was no worse than shabby-genteel until five years ago, when it was purchased by the trader Sidney J. Brown and his First National Realty Corp., an umbrella for a dozen real estate concerns. By last year, when Mayor Walter E. Washington toured the place, Clifton Terrace was bad enough to leave him speechless. He had headed the city's public housing department and was no novice at slum viewing.

Brown insisted the project was losing money, so he was not reluctant to sell, winning successive continuances on housing-violation charges while he sought a buver.

Enter HDC, formed largely through the efforts of the Rev. Channing E. Phillips, a Negro. His group had gotten an Office of Economic Opportunity grant to hire a staff and plan low-cost housing.

Clifton Terrace's decline and HDC's rising hopes made a natural combination. With much fanfare, HDC announced plans to acquire the property for \$1.8 million and rehabilitate it for \$3 million more.

The problems. But the \$4.8 million needed federal financing, and FHA said no to a 221d3 purchase and rehab loan.

The project was economically unfeasible, the FHA said: To support the mortgage, HDC would have to charge rents beyond the means of those it sought to help.

So HDC, with no results for months of effort and publicity, ran into criticism.

Brown, too, was having his troubles. A Neighborhood Legal Services project sued



CLIFTON TERRACE project in Washington.

him on behalf of the tenants, who were facing a heatless winter. Complaints of vermin and code violations mounted.

Then FHA interjected a new problem. It said no projects proposed by HDC would be approved as long as Martin K. Frank was on the HDC staff. Frank, a professional packager of 221d3 housing programs, had been hired by HDC as its vice president and had done much of the groundwork on the Clifton Terrace deal. But he had also been involved in a running feud with FHA and its parent department, HUD. On a project in Massachusetts he had been accused of taking fees from both sponsor and builder.

Some solutions. Phillips knew he would have to suspend Frank to appease FHA. Frank still draws pay, but he works on no program that involves FHA.

"Frank's suspension was not at all a condition of approval," says FHA Commissioner Philip Brownstein. "As long as we had this problem, we told them we wouldn't go ahead with it, so the practical effort was the same. But our consideration was making the numbers fit."

After Frank's departure, the numbers began to fit. Brown's price came down \$400,000. This development almost coincided with a city crackdown on Brown that brought him a 60-day jail sentence for failure to provide heat, but city officials, FHA and Phillips all deny a charge by Barron's that the city used its influence to force Brown to reduce his price. They point out the Riggs National Bank announced it was willing to release a \$400,000 mortgage on the apartments, which it held as unnecessary collateral on a loan to Brown. Since the price Brown sought added up to only the amount of the mortgages on the property (\$1.8 million), the \$400,000 came off the asking price.

So HDC, having lowered the price and eliminated Frank, went back to FHA. A

decision to reconsider the project was made by Housing Secretary Robert Weaver himself at a meeting attended by Brownstein and the HDC staff.

The agency invited HDC to submit plans. A sale contract with Brown was signed, and HDC agreed to manage the project until settlement or until the purchase contract expires. The FHA issued a letter of feasibility but held up an actual commitment for the \$4.4 million loan pending a look at the HDC blueprint.

Hopes. Improvement has begun. HDC let a contract to Pride Inc., a local makework organization that puts youths on cleanup projects to clear litter from the halls and grounds. HDC also installed a resident manager and moved tenants from one building into vacant units in the other two to prepare for rehabilitation. Andthere is now heat in Clifton Terrace.

But Phillips is quick to acknowledge that "there is no substantial improvement in conditions." He said this is impossible "short of full rehabilitation."

Brownstein says this analysis is correct. "But there is no reason why, if they get new heating, new wiring and new plumbing, it ought not to be as good as a new building.'

The rest of the city watches hopefully but—as Washington watches everything -THOMAS W. LIPPMAN -skeptically.

Chicago turns public housing into a private cooperative

Public housing is being sold for the first time to a non-profit cooperative of low- to moderate-income families.

This Chicago project, 122 units of row housing, is state financed. Federally financed public housing can not legally be sold, but government housing men are watching this pilot project with interest.

Under the plan ironed out by the Chicago Housing Authority and the sponsor, the Foundation for Cooperative Housing, mortgage interest rates will range from zero to 6%, depending on owners' incomes. At most, owners will pay only 21.8% of their \$5,700 to \$7,500 incomes.

Down payments will be low. And monthly fees (covering full taxes, utilities and maintenance) will range from \$87 for three-bedrooms to \$149 for five.

The CHA will sell the 20-year-old units, at cost. Says an FCH spokesman:

"For the most part the residents in Racine Court [the public housing] will be the new owners. Many of them were earning more than public housing levels, but they couldn't afford private housing.'

The spokesman adds that home ownership is a real challenge to the families. He says, "Hopefully, this effort will do more than give incentive to the new owners and to the neighborhood. It may well point the way for projects in other cities."

NEWS continued on p. 28

Women love closets...women buy homes with



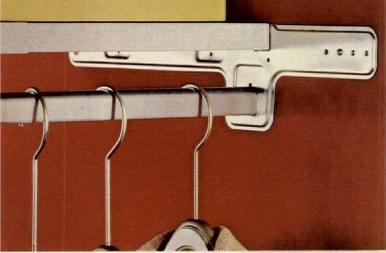
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House vs. apartment: Experts debate homebuilding's future

The builders of new garden and high-rise apartments are marching off with 40% of the nation's housing market this year. That's up from a mere 26% only seven years back. The change in mix is so obvious that homebuilders are splitting into two camps on the question of where their future lies.

Those who expect a single-family revival predict the appearance in the 1970s of an entirely new form of single-family house to lure people back out of apartments. They also cite the nation's allegiance to a time-honored credo: "I own my own home."

The multifamily partisans flaunt income and demographic

statistics. The age group that buys most houses, the 35- to 50-year olds, will constitute less than 2½% of the net new households this year. In years to come, the greatest increase will develop among new families with a head younger than 35 years. And these families rent most of the apartments.

Twenty-nine builders, manufacturers and consultants spoke out on the industry's direction at a House & Home Round Table in Tampa. Here are some of the most provocative views from the building industry's own experts on whether tomorrow's market belongs to single-family houses or to apartments.



FRED BARNET, manufacturer, At-"What about the Vietnam War? The enlistment average is two to three years, which means that in the next several years a half-million people will be coming back. And based on history there will be some form of G.I. Bill to make it easier for these people to buy houses than rent apartments.'



CHARLES CHEEZEM, builder, St. Petersburg, Fla. "Mom and Pop are the ones that want apartments. They are renting them, literally by the hundreds, mainly because of the no-maintenance feature. Eighteen percent of our population is over 65, so there are a lot of Moms and Pops around the country that want to get into apartments.'



JACK BOWLES, builder, Augusta, Ga. "I certainly don't think that single-family building is dead. We are having a helluva rough time with mortgage discounts, but I think we'll get the 6% FHA interestrate ceiling removed. Once we do that, there will be a completely new picture for the single-family builder all over this country."



WILLIAM SMOLKIN, consultant, New Orleans, La. "The real threat to the single-family unit will be apartment projects designed and oriented for the six- to 12-year-olds. There is an enormous market here that could affect ownership housing, but as of now there is no inherent incentive on the part of the builder."



NOWAK, manufacturer, Chamblee, Ga. "Perhaps we can build multifamily projects that will cater to the needs of the family, and perhaps we can't. But on the other hand, I think the desire for home ownership is a strong factor with the American citizen, and it can not be so easily overlooked by homebuilders."



ROBERT RITCHEY, manufacturer, Pittsburgh. "I am aware of the fact that the mean price of a singlefamily house today is kicking \$22,000. Personal income has not risen as fast as housing costs. This means that people are forced into multifamily dwellings whether they like it or not, regardless of children or amenities."

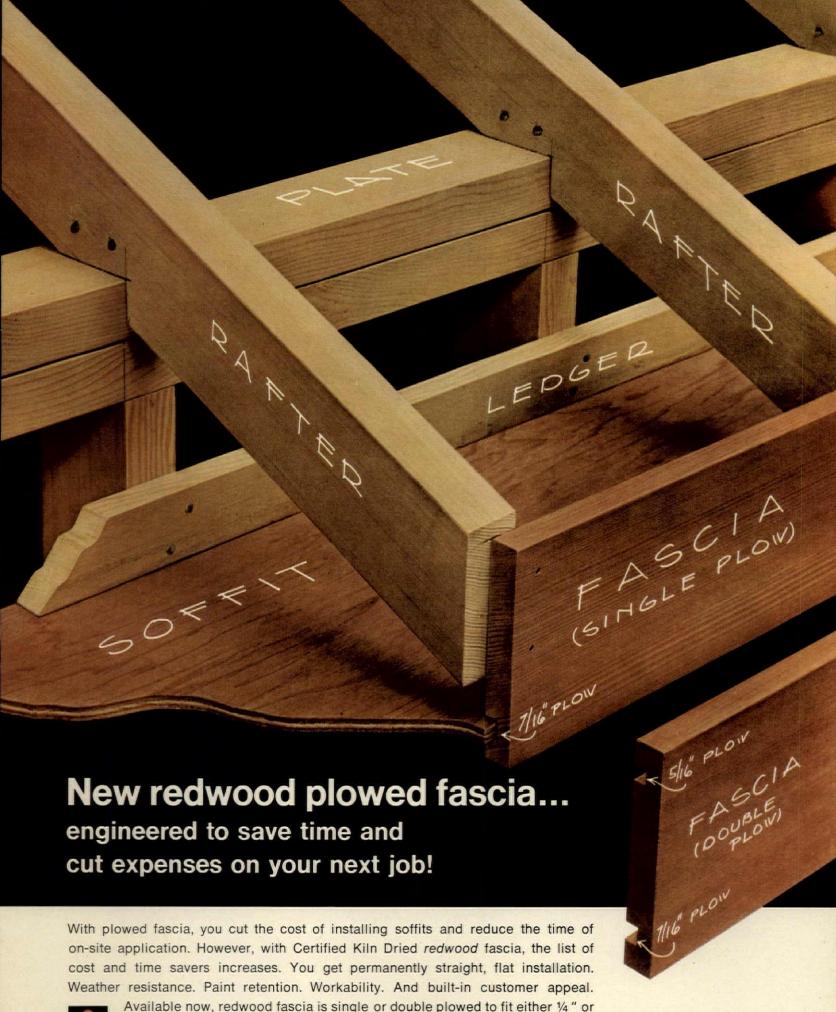


RICHARD GOODWIN, builder, Moorestown, N.J. "We are deluding ourselves if we think the singlefamily house isn't going to come back. I, for one, think it will and in a completely new form-attached, or detached, condominium or co-op, I can't say, but I base this on my 20 years' experience in



THOMAS STANDARD, builder, Bridgeport, Conn. "In communities of 50,000 or fewer people, local builders are beginning to see a new avenue of profit: apartment building. These communities don't have apartments and as more business moves from urban centers to small cities, housing needs increase.'

NEWS continued on p. 32



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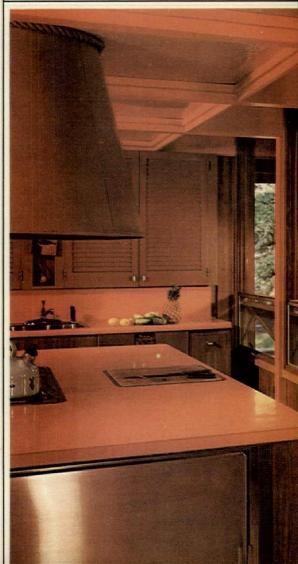
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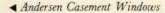




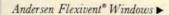


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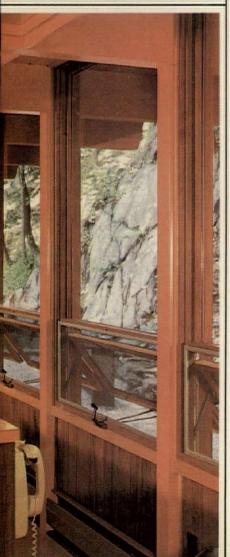
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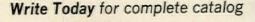
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NEWS

continued from p. 28

Mortgage Bankers losing de Laittre, a leader in fight on 6% FHA ceiling

John de Laittre, whose gentleman's touch and dignified manner did much to advance the programs of the Mortgage Bankers Assn., will retire as the MBA's executive vice president after the organization's Chicago convention Oct. 21-23.

Although de Laittre did not originate the idea for an MBA campaign to remove the FHA's 6% mortgage interest ceiling, he became a tireless leader in the drive after joining the association in 1966. So successful were the MBA's efforts that the ceiling may be nothing but a memory by the time de Laittre departs.

De Laittre cited only "personal reasons" for his decision and announced no plans beyond saying: "I'm just going to retire to Georgetown and observe the passing scene." His resignation letter to MBA President Clair A. Bacon stressed that when he had taken the post, "it was contemplated that I would be available for only a few years, and that certain objectives would be accomplished."

Bacon termed the loss of de

Laittre disappointing and wrote in warm tribute: "You have certainly accomplished most of the major goals that were set out for vou. I've never seen anyone tackle so many problems with such vigor

MORTGAGING'S DE LAITTRE Mission accomplished

and with such enthusiasm."

The achievements included the consolidation in Washington of MBA operations that had been spread between one headquarters in that city and another in Chicago.

De Laittre (Harvard Law '33), was a Minneapolis attorney when he joined the Farmers & Mechanics Savings Bank there in 1940. By 1957 he was the bank's president, and in 1959-60 he headed the National Association of Mutual Savings Banks. President Kennedy appointed him the Republican member of the Home Loan Bank Board, the s&L regulatory agency, in 1962, and de Laittre accepted the MBA post after his HLBB term expired in

American Standard buys a builder

American Standard Inc., the nation's largest plumbing manufacturer, has plunged deeper into homebuilding with the purchase Lyon Enterprises. Price: 350,000 shares of American Standard common valued at more than \$12 million.

Lyon, a California builder, had sales of \$20 million in 1967. American Standard posted net income of \$13 million on sales of \$600 for calender 1967. It has not disclosed any sales figures for homebuilding operations.

American Standard ventured into residential building last July in joint partnership with Lyon and the Janss Corp. of Los Angeles. Each put up \$2 million for a one-third ownership of Potrero Homes (News, July '67).

Says President W. D. Eberle of American Standard: "Our commitment in homebuilding is twofold: We want to be in the field with a certain amount of money on a revolving basis, and we want to do some social good."

Lyon will operate as a separate unit of American Standard, and William Lyon will continue as He also becomes president. American Standard's overseer for all investments in the construction field. These include the

Harlem-based construction concern, F. W. Eversley & Co.; Builders Research Corp., a construction-financing operation, and

PREFABBERS: Weil-McLain Co. of Michigan City, Ind., a heating and air conditioning manufacturer, is buying Continental Homes of Boones Mill, Va., a prefabber, for \$2.6 million.

ASSOCIATIONS: Harry E. Smith, executive vice president of the Home Builders League of South Jersey, is retiring. Mrs. Shirley Gibson becomes acting executive vice president.

DEVELOPERS: Robert W. Balcom has been appointed administrative vice president of the Alfred H. Mayer Co., developer of the Paddock Forest subdivision in St. Louis. Balcom has been executive vice president of the St. Louis HBA since 1965.

PRODUCERS: Thomas R. Corbett is president and Harry J. Floyd has been appointed vice president and sales manager of the newly formed home products manufacturer, Corbett Industries, in Dallas. Both were vice presidents of NuTone Inc., Cincinnati.



Why offer floor monotony?



Area rug by Edward Fields, Inc.

Personalize your homes with dramatic Bruce Fireside Plank.

Today many home buyers are bored with the institutional look of wall-to-wall monotony, so give them something to get excited about. Give them the rich, dark coloring and alternate-width oak planks of permanent-type Bruce Fireside Plank Floors.

The remarkable Bruce Tuf-Lustre Finish on Fireside Plank will keep its beauty for years because it's baked into the wood at the factory to resist stains and scratches. The prefinished feature saves on your installation time and labor costs, too.

Put excitement and individuality into your homes with beautiful Bruce Fireside Plank. See our catalog in Sweets' or write for more information on nationally advertised Bruce Hardwood Floors.



E. L. BRUCE CO., INC., MEMPHIS, TENNESSEE—38101 World's largest manufacturer of hardwood floors

build in versatility









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Jenn-Air's countertop broiler cooks everything with the same delicious flavor as an outdoor charcoal grill . . . but none of the smoke and mess. It's the ultimate in modern living for kitchens. Permanent grill rock, electrically heated to constant high intensity, sears in genuine charbroiled flavor. A unique surface vent snares smoke and odors at grill top level and exhausts them outdoors . . . no need for bulky overhead hoods.

Charbroils all their favorites: juicy steaks for dinner, hamburgers for a quick lunch. Permanent non-stick griddle fries bacon and eggs for breakfast. Optional rotisserie and shish kebab make the broiler an all-around cooking appliance.

Installation? Quick and easy. Broiler fits into as little as 18 inches of new or existing counter space. A model for any situation, whether building or remodeling. Send today for Jenn-Air's new full-color countertop broiler brochure and names of dealers in your city.









MODEL MAKERS Bob Jones and Bill Teepe show how Belair will look.

Levitt promotes top management and a new subdivision concept

One month after merging with International Telephone & Telegraph, the new Levitt & Sons announced two dramatic changes in management and building concepts:

• A realignment of the subsidiary's brain trust, with **William Levitt** moving up to chairman of the board July 1.

 A new building venture that differs in its basic concept from the standard tract that made Levitt famous.

At 42, Richard Wasserman, Levitt's right arm since 1963, moves up one more notch, replacing Levitt as president.

Wasserman's former job as executive vice president will be divided between two men. Richard Bernhard, 37, who now heads Levitt's top-volume operation in Puerto Rico, will be the new executive vice president of operations. And Norman Peterfreund, now senior vice president-fiscal, will become executive vice president of administration.

For almost 40 years, Levitt has built only single-family houses and a handful of townhouses. But now, with ITT's backing (\$2 million in sales in '67) and a beefed-up brain trust, William Levitt promises innovations:

"We will build every kind of shelter in this country and abroad: single-family houses, townhouses, high-rise and garden apartments. Our business now becomes total shelter—all types, all kinds, everywhere."

The new community of Belair Village, under construction in Prince Georges County, Md., is the first practical application of Levitt's expanded goals. In about eight years, when Belair Village is completed, it will have a town center surrounded by 7,000 units of single-family houses, townhouses, garden apartments and a high-rise.

The first houses will open this summer. A 12-acre lake is already under construction in the town center.

New York's Central Park was the land-plan model. "The only difference is that we added all types of housing," says **Richard Rosen**, Levitt's manager of community planning.

"Belair Village is not a new town," says Norman Young, senior vice president of marketing. "The greatest problem in recent new towns has been the need to invest millions to finish community amenities long before the first customer moves in. This does nothing but push house prices higher and higher.

"Our community facilities will rise in a time sequence that will produce minimal financial strain and enable us to keep house prices down."

Single-family houses will range from \$21,990 to \$25,990. Levitt will offer six models.

Canada's builders elect new chief

At 39, Edward L. Mayotte is the new president of Canada's National House Builders Assn., replacing W. G. Connelly. Mayotte was elected by the 3,200-member association at its Ottawa convention.

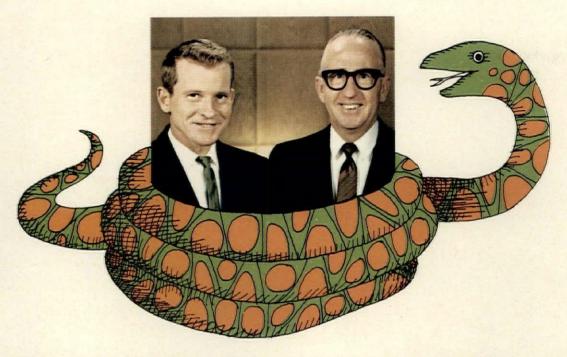
Canada's new builder chief is vice president of Mayotte Construction Ltd., a family company that builds 100 houses a year in Fort William-Port Arthur, Ont.

In another development, **Edgar J. Benson**, 45, has become the Dominion's new cabinet minister

responsible for housing. He is also minister of national revenue (Canada's tax office) and president of the Treasury board (Canada's purse-strings).

In his inaugural at the Ottawa builder meeting, Benson recommended abolition of the interestrate ceiling on all National Housing Act loans, Canada's equivalent of the FHA mortgage. The builders were enthusiastic; they have been asking the same thing for ten years.

NEWS continued on p. 40



"In conventional building, slow turnover put a real squeeze on our profits," say Robert Bitner and Robert Van Becelaere

"Now, with Kingsberry we've nearly doubled our volume and our profits!"



Kingsberry's "Canterbury," as built by Robert Bitner and Robert Van Becelaere, Pittsburg, Kansas.

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The Kingsberry package paid off with a dramatic upturn of profits for these two experienced builders.

Besides cutting their on-site erection costs 50%, the Kingsberry package included the best materials... materials of a quality unobtainable in their area. Kingsberry helped these builders double their profits with advantages you can have too; Stronger curb appeal. Tight cost control. A great selection of 100 architect designs. Sales-targeted renderings which actually sell homes. And an experienced Kingsberry sales representative working elbow-to-elbow with the builder on promotion, marketing, and finance.

Let Kingsberry go to work for you. We've proved ourselves in over 50,000 homes. Your big upturn of profit could be just a coupon away.



Cut yourself in for higher profits with this coupon. NOW.

HH-4 / 5096 Peachti Please send more in your representative cal My interest in Kingsbell have—lots defined to the control of	irector - Marketing / Kingsberry Homes / Department be Road / Chamblee, Georgia 30005 / (404) 457-4301. formation on the Kingsberry program. Please have on me. The rection of the Kingsberry program. Full please have on me. Full please have built and sold Full please have Full please Full please have Full please ha
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When you've got something good,

why hide it?

Waste King Universal isn't. We're right in there pitching. Ads in Look, House & Garden, House Beautiful, Better Homes & Gardens, Sunset and Good Housekeeping will capture the attention of over 50 million readers. The ads quickly convey the message that Waste King products are better because they're made in the scientific New West.

There's TV, too. Waste King will be seen on all three networks. And we aren't stopping there! You'll be seeing us regularly in House & Home, Merchandising Week, Supply House Times, Plumbing-Heating-Cooling Business, Contractor, and Kitchen Business.

We know you'll find all this can be profitable for you. After all, why shouldn't it be, now that Waste King is telling millions of your customers we've got the finest products around!

Waste King Universal Stainless Steel Dishwashers

We were the first to produce a dishwasher with a stainless steel tank that's guaranteed for 20 years. That's right. 20 years.

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We're the first to produce 4 million disposers. Why? Because you can't buy a quieter one. At any price. And they're the most completely trouble-free disposers ever built!

Waste King also produces America's finest line of gas and electric ranges. And unique, trend-setting Char-Glo® gas broilers.



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A Subsidiary of Norris Industries
New Dimensions at Waste King Universal are setting up new sales for you.

The Paneled Bath

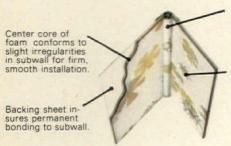
Newest selling idea in baths ... exclusive from Formica!



A totally new look is now possible with FORMICA® brand Panel System 202. Smooth surface has no grout lines to get dirty, nothing to chip, crack or crumble.

New wall system package . . . panels, trim moldings and adhesive ... goes anywhere moisture is a problem; baths, shower stalls, laundry rooms and kitchens. It's superior to tile in many ways; has no grout to clean, nothing to

crack or replace. No back-and-forth service calls to worry about. Available in 18 fashionable designs, woodgrains and marble patterns. Contact your Formica representative or write Dept. HH-4-8.



Two-piece trim molding of heavy gauge extruded aluminum surfaced with matching FORMICA® laminate.

Panel face is dur able FORMICA® brand laminated plastic. Main-tenance-free; won't discolor; wipes clean with damp



Remodeling? FORMICA® Panel System 202 goes over almost any surface as is (even ceramic tile).

There are other brands of laminated plastic but only one

Leadership by design

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50 volunteer architects are working to improve the look of slum neighborhoods in San Francisco

The young architects are working through San Francisco's Community Design Center, organized to bring professional architecture into poorer communities.

Architect Claude Stoller, AIA, of the firm of Marquis & Stoller, organized the center two years ago to improve the slums and to provide internship training in architecture and city planning for young architects working for Bay Area design firms.

"A major social problem for the ghettos is physical environment, which means schools, housing and jobs," says Stoller. "Social agencies help with some problems, but when they come up against physical environment, they bump their heads."

Stoller, a professor at the University of California at Berkeley, set up the center without fanfare or publicity.

"I went to meetings, put notices up and always had night hours. Eventually the word spread, and now the ghetto communities know all about us.'

The center has taken on 52 projects. The work includes almost everything from redesigning front porches to planning highrise towers in Chinatown.

Some of the major jobs:

- · An in-depth study of nonprofit, lowcost housing for two Chinatown sites.
 - Planned housing rehabilitation for a



ARCHITECTS' STOLLER

"The ghettos know all about us"

three-block area of San Francisco's Mission district

- · A study of 11 acres, owned by the city, that will soon be cleared.
- · Redesign of a city park that neighborhood groups hope to finance with federal beautification funds.

No competition. Says Henry Schubert Jr., the group's full-time director: "We offer no competition to the professional architect. When we complete feasibility work, we back out and a private firm steps in. So, in fact, we generate work."

Senate votes open housing in watered-down version

An open housing bill to cover 52.6 million dwellings, or 80% of the nation's total, has cleared the Senate and headed for an uncertain fate in the House.

The bill was approved by a vote of 61 to 19 as an amendment to the Administration's civil rights measure. The vote for the rights package was 71 to 20.

The original open housing bill proposed by Senate liberals would have lowered race barriers in 97% of the nation's 65 million units. The compromise, arranged by Minority Leader Everett Dirksen (R., Ill.), would:

1. Bar bias immediately in the 900,000 apartment units financed under FHA or VA. Single-family homes would be exempt.

- 2. Expand coverage Jan. 1, 1969, to all large and small apartments, however financed, and to new single-family houses if the builder is selling more than two houses each year. That would cover 19.8 million more units.
- 3. Ban discrimination after Jan. 1, 1970, in all single-family, owner-occupied homes (including previously exempted single-family FHA or VA homes) if sold through a broker. An owner selling alone could practice discrimination, but he could not mention discrimination in his advertising.

Penalties: Conciliation or suits by U.S. or individuals. No criminal penalties.



operating conditions before it leaves the plant.

Parts are machined for extra-heavy duty; belts are of ozone resistant rubber; mechanism is simple in construction; and its variable speed drive is transistorized.

If you're looking for a whiteprinter, look to your Blu-Ray dealer, because the full twelve month warranty protects both you and him. Circle reader service card for more information and a FREE COPY of our 44 Page Reproduction Guide.





MUTOH trac-drafter

The new MUTOH trac-drafter outperforms any other make for smooth, simple, micro-accurate operation. Here's true feather-touch response over the entire board...precision drawing to .003" accuracy over entire beam lengths. Double-hinged head stays flat on any board surface . . . scales or entire vertical beam assembly hinge completely free of board. Available in a complete line at delivered cost less than most other brands, with full two-year guarantee on craftsmanship and parts. For the complete story, call or write for Bulletin TD-2B. Consul & Mutoh, Ltd., 518-26 Davis Street, Evanston, Illinois 60201.

MUTOH

WORLD LEADER IN PRECISION DRAFTING MACHINES AND MICRO-PRECISION COORDINATOGRAPHS

Is there anything in the kitchen Tappan doesn't make?



Tappan Renaissance II Range has two big ovens. Available in gas or electric. (We don't make you disappoint a single prospect.)

Tappan Twin-Temp Refrigerator and Freezer holds a world of food. And has quick-change front panels that let her be creative.

Tappan Reversa-Jet Dishwasher gets dishes far cleaner with 2-way washing action. (We don't make her rinse

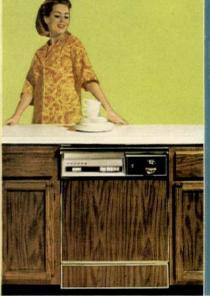
Tappan Electronic Range is fast because it cooks with microwaves, not heat. (Would you believe a 5-pound roast in 30 minutes?)

It keeps food hot for slowpokes

sell a whole house.)









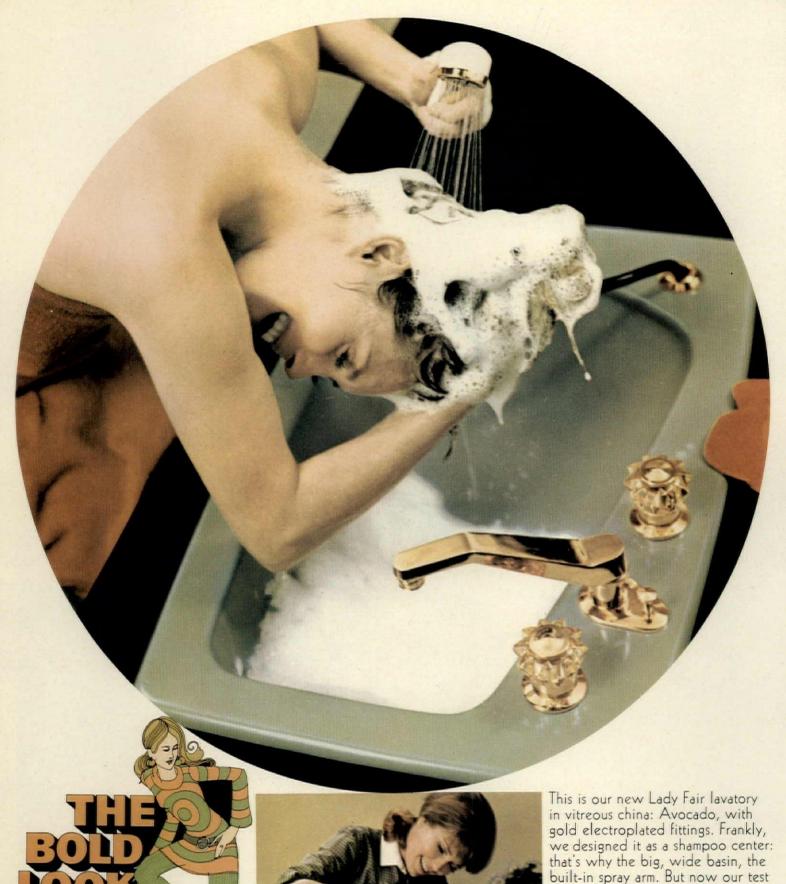
One very sound reason for specifying Chrysler Airtemp residential condensing units is...

the sound.

Chrysler Airtemp's residential condensing units are quiet. Their simplified design means easier installation and trouble-free service. Enjoy product superiority in the wide line of Chrysler-engineered Airtemp cooling and heating products. Get all the facts from your Chrysler Airtemp distributor.







gold electroplated fittings. Frankly, we designed it as a shampoo center: that's why the big, wide basin, the built-in spray arm. But now our test families tell us it makes an ideal baby bath. Pop grabs it for shaving ... the twins use it side by side. Seems it's a bathroom laundry, too: just the thing for washing out lingerie. One woman writes that she and hubby snack by the bedroom TV—and guess where she rinses the plates! (Wonder if it would take a Volkswagen?)

KOHLER OF KOHLER

Kohler Co., Kohler, Wisconsin



One of a series presented by members of the Forest Products Promotion Council.

This modern obelisk of red cedar serves a dual purpose.

Thanks to its rich color and dominant thrusting shape, the front of this church, near Seattle, Washington, creates a striking impression on anyone approaching from the nearby highway.

But the design serves another function, too. Within the church, the soaring vault above the apse is sharply contrasted with the lower ceiling of the congregation area to symbolize the relationship of man to

his religion. This effect is emphasized further by light falling through a stained glass window placed in the apex of the apse's ceiling 72 feet above a free-standing altar.

To enhance the church's exterior appearance, architect Robert D. Theriault specified red cedar shingles because of their natural beauty, visual warmth, insulation value and, as he puts it, for the "soft skin texture we felt"

the design shape called for."

Chances are red cedar can give you exactly the effect your next project demands, too. Why not find out? For more information on Certigrade shingles or Certi-Split shakes, see our Sweet's Catalog listing 21d/Re,

Call or write: 5510 White Building,
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(In Canada: 1477 West Pender
Street, Vancouver 5, B.C.)

Red Cedar Shingle & Handsplit Shake Bureau

Quadrangle. A touch of the old world that could help sell a new home.

New Quadrangle "indexed" vinyl asbestos tile not only says beauty. It says quality.

The natural stone look of this tile adds to the attractiveness of the whole home. And brings people closer to buying it.

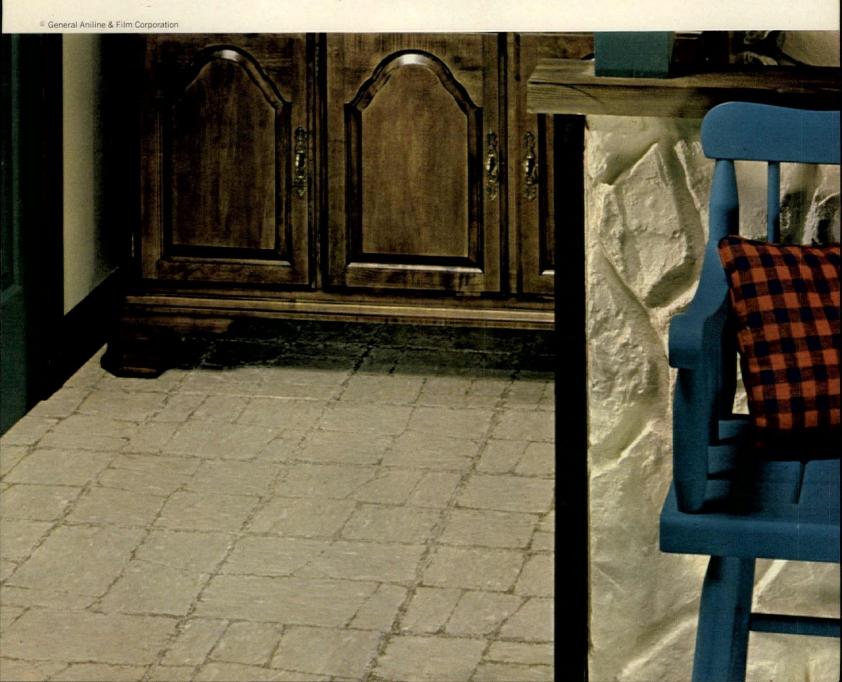
Quadrangle, like many of our other natural look patterns available this year, features disappearing seams. That is, the stone design flows from tile to tile, matching the grout lines and concealing the joints.

Quadrangle adds an elegant touch to model homes.

This new pattern is available in 4 unusual colors that have the truly authentic look of stone. Size: 12" x 12". Thickness: Standard Gauge.

For more information, contact your GAF/Ruberoid Flooring dealer or write to GAF Floor Products Division, 733 Third Avenue, New York, New York 10017.







The "OVERHEAD DOOR" electric is tougher than Jack, Dave, Rick, Mike, and Scott



Fully transistorized, portable transmitter opens and closes garage door automatically by radio control from your car.

Don't get us wrong. The "OVERHEAD DOOR" electric is much more than just tough and pretty. It's also the most reliable, convenient garage door there is. But chances are the first thing your prospects will notice about our door is its obvious beauty. The woman of the house will like that. It complements the overall beauty of the home. And the man of the house will doubtless be impressed by its rugged construction. He knows this means dependable

service, longer life.
But the clincher is left for you to
demonstrate: the door's built-in
convenience. Just put the small portable
radio transmitter in your prospect's hand
and let him see for himself how
wonderfully easy it is to open and
close a garage door by just pressing a
button. Explain to him that he can
operate the door without leaving his
car. He'll like that. So will his wife.
Suddenly you've sold a door, and a house.



and as pretty as Linda.

We make doors that can dress up any home you build, regardless of architectural style. They're installed by our own factory-trained door specialists, and are backed up with a full one-year written warranty. You can choose The "OVERHEAD DOOR" electric with absolute confidence. It's the best garage door in the world. We ought to know, we invented them a long time ago and we've been improving them ever since. Along the way, we've

built the largest nationwide network of door installation experts and distributors to serve you.

Include The "OVERHEAD DOOR" electric in every home you build. It'll prove to be the best salesman you ever had.

Another open and shut case for The "OVERHEAD DOOR".

For more information about the men who stand behind The "OVERHEAD DOOR", please turn the page.



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and electric operators for residential and commercial buildings



The men standing in back of The "OVERHEAD DOOR" also stand behind it.

These are door specialists. They're factory-trained, service-minded, and know more about doors than anybody else in the world. They're the kind of men you'll be dealing with when you select The "OVERHEAD DOOR". The door you'll be dealing with is the best there is, and has been since 1921. The "OVERHEAD DOOR" and electric operator save you time and money because they are installed, warranted,

and serviced by your local distributor. Get the one and only original; The "OVERHEAD DOOR". It will help boost your sales. For complete details contact your local distributor. He's listed under "OVERHEAD DOOR" in the white pages of your phone book. Or, refer to our catalogue in Sweet's Architectural File. For more information on what's behind The "OVERHEAD DOOR" please turn back one page.

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Linger a minute. Prospects will. This rangetop from Corning is completely new. No burners. No coils. The surface is flat and smooth and clean. A delight to look at, a delight to cook at. Simple to install.

Cookmates come with The Counter. They are cook and serve utensils made in the Corning tradition, especially for The Counter.

Your prospects will soon see The Counter That Cooks and Its Cookmates in national magazines. Return the coupon so you'll know the complete story. Your kitchens will never be the same again.

Send to Dept. 102, Corning Glass Works, Corning, N. Y. 14830. Please send full information on The Counter That Cooks.

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Company

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City, State, Zip

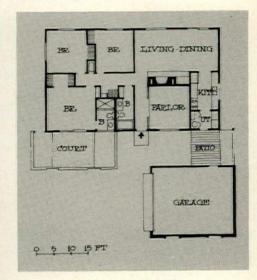
CORNING



Two well-planned houses in the lower price brackets



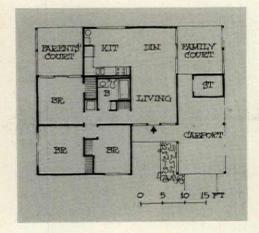




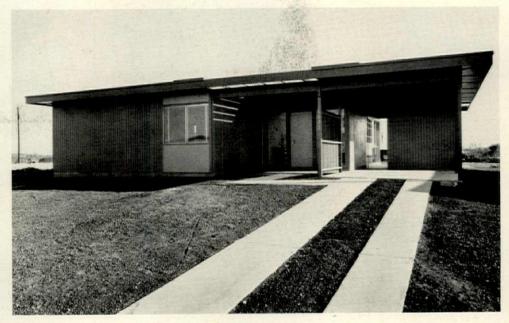
\$23,775 MODEL offers 1,433 sq. ft. of living space, plus two completely private outdoor living areas. It is one of about 25 models in the \$23,500-to-\$27,500 price range being built by Ray Ellison Industries (1967 volume: 688) for the San Antonio market. The price includes appliances, air conditioning, carpeting, fireplace and two paved patios.

The compact plan provides three bedrooms, two baths, a 12'x12' formal living room and a 12'x24' family living-dining area that has a fireplace and sliding glass doors to the rear yard. The covered patio directly off the kitchen and utility room is screened from the street by the two-car garage, and the master bedroom court yard is protected by a high brick wall.









\$13,800 MODEL is a relatively new entry in Ellison's line of 25 models between \$11,000 and \$23,000. It has 976 sq. ft. of indoor living space, plus two small private courts at the rear.

The covered entrance leads directly into the 12'x24' living-dining area, which has sliding doors to a courtyard behind the one-car carport. The L-shaped kitchen is open to the living area and also has sliding doors that lead to the rear yard. A short hallway leads from the front entrance to the three bedrooms and bath. The master bedroom opens onto a small court at the rear that is screened from the adjacent house by an extension of the side wall.

This year, Independence Day falls on July 5.

Denver will be independent of Colorado. Miami will be independent of Florida. San Diego will be independent of Los Angeles. Baltimore will be independent of Washington. Houston will be independent of Texas. And Kansas City will be independent of Missouri and Kansas. On July 5, Life introduces six new independent markets. No longer do you have to pay for a larger area than you really need. You can advertise in these new local markets independently or in combination with any of Life's 96 other local editions. And on a weekly basis. Now you have new opportunities to support local builders featuring your products. This is the kind of thing you've come to expect from Life. What in the world would you do without it?

Life. Consider the alternative.

The culprit: GORSH or GORSLR?

H&H: Thanks a million for exposing "GORSH" (Good Old Reliable Subdivision House) in your January issue, and while you are at it, I wish you would put "GORSLR" (Good Old Reliable Subdivision Lot Regulations) in the lineup, too!! In my book, these are the culprits that are really still standing in the way of progress for a better environment.

In the old days (before World War II) GORSLR made sense, because a land developer in those days was only concerned with subdividing land into units of lots for sale to individuals, who in turn needed all those rules establishing uniform setbacks, side yards, lot sizes, etc., but today more and more housing is being built and sold by the developer who starts with the raw land and plans the whole parcel as a unit—a planned-unit development. So now the ground rules need to be changed.

Thanks to the hard work and foresight of NAHB, FHA, the Urban Land Institute and HOUSE & HOME, there has been a veritable revolution in subdivision regulations in the last six years. Here in Southern California, for example, the planned-unit development is an accepted procedure for developers. Almost every one of the 24 municipalities in Orange County, for instance, have adopted some form of PRD, RPD, PUD, conditional-use-permit or density-development ordinance.

So the Good Old Reliable Subdivision House is not really the villain you make her. She was taken down the path by Good Old Reliable Subdivision Lot Regulations. Keep up the great work. Who knows, we may significantly improve the suburban environment yet.

RICHARD R. LEITCH, AIA Richard Leitch and Assoc. Inc. Newport Beach, Calif.

HLBB: Horne cites the record

H&H: Recently I have read at least two HOUSE & HOME editorials that simply do not express the correct posture of the Federal Home Loan Bank Board. In one such editorial [January] you say, "The HLBB let the s&L industry down in 1966."

Perhaps a few facts will enable you to understand more comprehensively just what the situation was in 1966 and why your statement is in error.

In early 1966, when there was already some pressure on savings flows, the Federal Home Loan banks were increasing advances outstanding at a seasonally adjusted annual rate of \$6 billion a year. You are aware that we are not a money creating agency and have to go to the market to obtain funds. Even if the market had not tightened severely and had maintained only its early 1966 posture, this pace could not have continued. Furthermore, it became apparent that the disequilibrium between rates paid by savings and loan associations and banks and the open market was such that associations faced a serious drain. We advised Congress that we did not have the resources or the access to the market to obtain the funds to offset this drain, and early in the year we asked for standby authority on rate controls and authority for the regulatory agencies of commercial banks to make adjustments in their rate control structure. These requests were not granted until late in the year.

Even so, we did extend a substantial amount of advances between April and October which permited associations to meet their liquidity requirements. Protecting the

liquidity of members is the most essential purpose which the founders of the Federal Home Loan Bank System had in mind. Indeed, an economist from one of the most reputable investment banking houses on Wall Street stated that we had prevented undesirable financial repercussions by acting successfully as a lender of the last resort in 1966. While

H&H editorial index

HOUSE & HOME'S 1967 editorial index, an eight-page reference guide, is now available.

It includes a cross-reference listing of all subjects covered last year by H&H—115 in all, from acoustics to zoning—plus a combined, chronological table of contents of major articles.

If you'd like a copy of the new index (there's no charge), write to: Reader Service, House & Home, 330 West 42 Street, New York, N.Y., 10036.

acting as a lender of last resort, we also made it possible for associations to reinvest all of their earnings on loans and all of their loan repayments, and to obtain some expansion advances. Once Congress saw the validity of our position and passed the rate-control bill, savings did recover, and the situation in late 1966 and 1967 was quite different.

I think you can see the basis for my concern about your remarks on this score. The record certainly does not support your position.

There are several other surprising points in your editorial. First, you ask for a return to the 25%-of-asset ceiling on borrowings. You do not state what the basis for this is; nor do you recognize that that ceiling has not existed since 1965. In searching the record for the establishment of that ceiling, we can find nothing that suggests any special basis for its adoption other than the best judgment that could be made in the 1930s, when no experience was available as to how the mechanism would work.

Your notion that the Federal Home Loan Bank System has made long-term advances to s&Ls is only partly correct. Indeed, advances for more than one year have typically accounted for 50% and less of the credit outstanding at Federal Home Loan Banks. Most of the advances for more than one year had a maturity of less than 21/2 years. It seems somewhat inconsistent to argue that an agency which is charged not only with supplying credit but also with assuring the soundness of that credit can predict today what the needs of the members will be over a ten-year period. The fact that we extend only short-term credit, which is subject to renewal if market and other conditions merit it, does not reduce the effectiveness of our mechanism

You say that, officially, the current availability of advances to s&Ls is 17.5% of assets. May I note that savings are the basis for computing advance ratios. You then add that unofficial policy permits s&Ls to borrow only up to 10%. I call your attention to a table of permissible borrowing ranges in Section 531.3 of the Regulations for the Federal Home Loan Bank System. Nowhere does this

figure of 10% appear. There is nothing in writing or in practice that would support your statement. An institution which qualifies in terms of Section 531.3 could, if its market conditions justify it, obtain a full 17.5% of savings. Perhaps you are suggesting a wide-open advance window in which the borrower makes all decisions and the Federal Home Loan banks act merely as a servant. This would directly contradict the intent of the act establishing the FHLB system and even some of its specific language.

You may also be interested in the fact that at the end of November 1967, after very substantial loan repayments because of heavy savings inflows earlier in the year, some 237 borrowers had advances outstanding in excess of 10%, and these borrowers held almost 45% of the outstanding advances.

JOHN E. HORNE, chairman Federal Home Loan Bank Board Washington, D.C.

Chairman Horne's letter is a sound statement of a philosophy that differs somewhat from ours. However, his latest speech, to the Mortgage Bankers Assn. at New York University in January, seems to suggest that his view is softening. Summing up, he said:

"May I point out that a revision in the past philosophy about federal credit programs, or at least Federal Home Loan Bank System credit, is needed if we are really to help the mortgage market. We must maintain a more flexible stance which would permit us to respond to changing market conditions. We also need better liquidity practices for individual institutions. Additionally, we should recognize that credit stringency does mean that some, if not all, sectors get less credit than they want. Thus, stabilization needs to be defined in recognition of this fact and not in some unattainable framework."—ED

HLBB: policy changes needed

H&H: Your January editorial measures once again the firm attachment you have to the lifeblood of housing—steady access to a reasonably stable supply of money for mortgage financing.

Through the grace of the American saver, building prospects for 1968 are bright. But we have no place to turn if savings slow down. This is what builders, land developers and building-product manufacturers and distributors must work hard to correct. We must find a way to create mortgage-lending reserves that can be drawn upon when needed so that at least some semblance of order can be maintained under all conditions. It's much too soon to forget 1966, and if these reserves aren't created before we need them, it's too late.

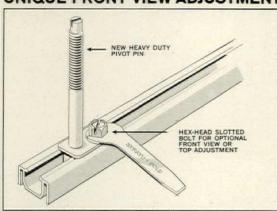
In the Senate's study of "Mortgage Credit" [May 1967], the board of governors of the Federal Reserve System, under its section, "Suggested approaches to reform," stated: "The residential mortgage market—both primary and secondary—should be integrated closely with the general capital market, not insulated from it."

Urging the housing industry to get on with implementing this counsel is precisely what you have done in your editorial comment on the Federal Home Loan Bank Board. It's the ability of the board to obtain funds at favorable rates in the general capital market—as well as its historical role of making funds

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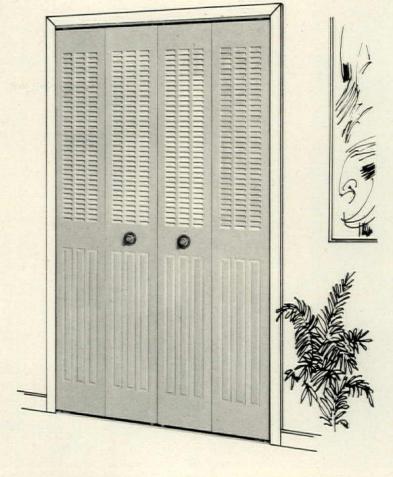
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Is it any wonder seven out of eight homeowners prefer all-aluminum wire screening?

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Ever thought of building or financing a motel?

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Every one was built of materials that will provide a good long-term investment.

These buildings were planned so they could be erected fast, saving interest on construction loans, saving premiums on construction insurance, and cutting down on on-the-job labor. One project was under roof only 32 days after ground breaking.

But even more important, all can be kept in tip-top shape year after year with a low investment in maintenance. Why? Because every one uses first class materials, with masonry walls and Flexicore precast concrete floors and roofs.

Add to this the insurance savings of firesafe construction, and vou'll get additional long-term benefits. One example in the booklet shows a 20-year insurance savings of over \$18,000.

You'll find this booklet valuable if you are interested in any type of multiple-unit resident construction, apartments, retirement homes, or motels.

I'll be happy to send you a copy. Just write for "Holiday Inn Report," The Flexicore Co., Inc., P.O. Box 825, Dayton, Ohio 45401.

> Sobert & Smith Robert E. Smith

Vice President and Manager



LETTERS

continued from p. 54

available for housing-that demands this matter be given serious attention. The HLB system is the only financial agency with capacity to administer an additional \$30 billion in housing credit.

When the money squeeze of 1966 hit, the savings institutions didn't go out of business. They just stopped mortgage lending, and a few months later all was right with the world. It was the builder who went out of business. It was the land developer who accumulated exorbitant interest charges. It was buildingproduct manufacturers and distributors who missed sales and failed to earn profits. It was housing's labor force that was dispersed. And it was the displaced family who couldn't buy a home.

We agree with you that now is the time for the housing industry to line up en masse to support the change in FHLB policy that you have so clearly outlined and urged.

JAMES V. RICE, vice president-finance Pease Woodwork Co. Hamilton, Ohio

Oil-and-gas heating

H&H: Your article in the January issue entitled 'This oil-gas heating system cuts apartment fuel rates 25%" is so naive, so misleading and so highly questionable I cannot help but observe that you are, in effect, helping to perpetrate something that is fraud-like in its implications. These are not sour grapes, either.

Let's look at it this way:

Suppose you are an apartment-house owner who has listened to the heady siren song of the utilities: "Burn gas until the temperature goes below 20°, then switch over to fuel oil. Don't worry about supplies of fuel oil; all you have to do is call up your local oil man and he'll come running.'

Okay, so the temperature skids down to 10 above. You have to switch over to oil quickly or pay a very heavy penalty for staying on the gas line-maybe as much as \$5 a thousand cu. ft. Suppose the 10° temperature continues for a couple of days, or perhaps it ranges up and down from zero to 20° for two or three weeks. Next thing you know your limited supply of fuel oil is gone. So you pick up your phone and call a local oil man. No doubt he's running his trucks 18 hours a day taking care of his regular year-round customers. Do you think he's going to forget about them to run over to your place?

Let's look at the economics, too-particularly, that comment that apartment-house owners can save up to 25% with interruptible gas. Hogwash!

LILCO [Long Island Lighting Co.] gas for residential heating is sold on block and step rates—a rather complex formula using therms instead of mcf. The initial block is 200 cf, then after that the next 600 cf will run 39.2¢ per therm (or \$3.92 per mfc); the next 600 will run 25.7¢ per therm (or \$2.57 per mfc), etc., etc. After you consume 17,300 cf (which costs you almost \$300), you finally arrive at the "cheapest" gas rate—13.1¢ per therm (or \$1.30 per mcf). At \$1.31 per mcf, this means gas is equivalent in price to No. 2 fuel oil at 18.34¢ per gallon. But No. 2 fuel oil is cheaper than that-currently it is running about 16.5¢ per gallon. And don't forget this very, very important point-fuel oil's prices are fairly consistent month after month, and are determined by competition. Gas bills are computed monthly, so each and every month you have to start all over again and consume

the high-cost blocks first (all 17,300 of them)

before you arrive at the "cheapest rate."

The long and short of all this is that the gas company is really selling "dump" gas, (by the way, this was the industry terminology until the less descriptive term "interruptible" was designed) and that when the weather gets cold, interruptible gas can't make the grade and must resort to good old reliable fuel oil to carry the ball. In other words, gas wants the heating oil industry to be the flywheel for its own operations. It also wants to make the heating oil industry the scapegoat for its own failures when the chips are down. And when the headlines unfortunately get nasty, who capitalizes on them to grab more consumers from the heating oil industry? Why no one but your friendly gas man!

J. RICHARD SHANER, public relations director National Oil Fuel Institute Inc. New York City

The oil-gas-heating article is based on existing interruptible-gas installations, and the facts come from companies that have had extensive experience in manufacturing and installing both oil and gas heating plants. If any builder, heating contractor or apartment investor can document Mr. Shaner's criticisms, H&H would certainly like to talk to him. -ED

Low-price housing incentive

H&H: If the federal government would permit builders to use up their profits in building homes for low-income people and only charge one-half per cent interest for a service fee for a 40-year mortgage-and permit this second use of the builders' profit to be tax free-I am sure that a great majority of builders would cooperate.

I have discussed this with one of our larger builders in the Mount Clemens, Mich. area; he is presently building \$16,000 houses, and he is willing to use up his profits if the Government would permit this money to be tax free as the mortgages are paid off. He feels that he could build 20 houses a year and set up a tax free annuity over a 40-year period for his family.

It would be nice if the National Association of Real Estate Boards and the Builders Association could pick up this idea.

JOHN J. RUGGERO Aero Realty Mt. Clemens, Mich.

Savings-bank bill

H&H: The savings-bank bill before Congress [News, Jan.] could result in very profitable benefits for the homebuilding industry.

In the short run, very few associations will probably be able to "gear up" and use the new authority. In the long run, however, it is hoped that the industry will be able to take advantage of the broader lending powers provided by the proposed legislation—and thus to increase their earnings. This will enable them to compete more effectively with the commercial-bank oligopoly.

We certainly do not want to go through another year like 1966, and it seems that the only alternative is to let us lend on shortterm-type investments, which have higher liquidity and higher yield.

GEORGE DAVID HANNA JR., executive vice president and secretary First Federal Savings & Loan Assn. Newton, Kan.

Letters continued on p. 60

If you could visit the Kitchen Aid dishwasher factory, we could stop advertising.

The way we make KitchenAid dishwashers is one reason people like to buy KitchenAid dishwashers.

If you'd visit our plant, you'd see what we mean.

Take the parts. We choose them as carefully as you choose the materials for the houses you build.

Every part of every KitchenAid dishwasher is subject to inspection. From the racks on the inside to the baked enamel on the outside.

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Before a KitchenAid dishwasher leaves the assembly line, it's put through its paces. Every cycle—washing and drying—is checked on every single dishwasher.

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Why do we go to all this trouble? It's simple. We don't want your customers to have trouble with any you install.

Or you to have expensive call backs.

And for many builders, this is one of the very best reasons for using KitchenAid dishwashers.

Since you probably can't visit our factory, see your distributor. He'll give you even more reasons why a KitchenAid dishwasher is such a good buy. Or write KitchenAid Dishwashers, Dept. 8DS-4, The Hobart Manufacturing Co., Troy, Ohio 45373.



KitchenAid

Dishwashers and Disposers

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Readers respond to McGraw-Hill's urban-crisis report

"If only for intelligently selfish reasons," businessmen must take steps to help cure the ills that plague U.S. cities.

So wrote the editors of "Business and the urban crisis" (H&H, Feb.), a special report featured in McGraw-Hill's domestic publications. The report called for action by business and industry to provide more jobs, better education and adequate housing for the hard-core poor in the explosive urban ghettos. Here is a small sampling of readers' letters commenting on the report in general and its "Housing" section in particular:

'Best I've seen on this topic'

H&H: "Business and the urban crisis" is the best article I have seen on this topic.

Business must pursue a course of massively aiding the slum dweller. This course, as your article points out, is in the enlightened self-interest of business as well as in the common interest of the nation.

I heartily agree that one of the most important steps in attacking the urban slums is implementation of the Model Cities Program. It is my sincere hope that Congress will fund Model Cities to the extent that President Johnson requested.

KENNETH M. CURTIS Governor State of Maine

H&H: . . . by far, the best thing of its kind I've ever read. Let's hope it is both widely read and acted upon.

GEORGE C. KIERNAN, president Eastman Research Long Island, N.Y.

H&H: . . . one of the finest and most accurate summaries of the urban problem. Your section on housing is particularly well done.

CHARLES H. PERCY U.S. Senator State of Illinois

H&H: . . . It must be a thrill to be part of a company that expresses itself so well and in such an enlightened fashion.

RICHARD L. WEISS, vice president and regional general manager Levitt & Sons Chicago

H&H: Would you please send, as soon as possible, 250 copies of "Business and the urban crisis."

BARBARA A. TICE Community Action Program Grand Rapids, Mich.

'Excellent, but we disagree . . .'

H&H: We read your excellent report, but disagree with you completely that it is unrealistic to count on cutting costs through new technology.

While it is true, as you stated, that it is unlikely that research will find new materials cheaper than wood, brick, cement and gypsum, system building has proved, at least with cement, that substantial savings can be materialized by converting this material through industrialized processes into the finished product, namely the dwelling.

Your statement that it is unlikely that labor practices can be changed in any effective way also applies, in our opinion, only to conventional construction methods. It in no way applies to industrialized building, which has proved in many countries to be the only realistic means to give labor guaranteed year-round employment and many other benefits not obtainable in conventional "craft" building.

You rightly point out that for years one innovator after another, often aided by federal grants, has tried to put housing on the assembly line, and that these attempts have failed to cut costs. The reason for this failure has been simply that the objective, to put housing on the assembly line, was never accomplished. It is very naive to assume that technological ingenuity, used in most of these instances, can be a substitute for industrial tooling, which is the prerequisite for assemblyline production. The demonstration projects, to which you obviously refer, were for such small production runs that it was neither possible to create mechanized production machinery, such as is routinely used in Europe by more than 300 plants, nor to use industrial programing techniques as used in all our mass-production industries.

Our studies of projects on our drafting boards indicate that fireproof housing can be built with savings of 7% of the construction cost, if the shell consists of exterior and interior load-bearing precast concrete walls produced in mechanized plants and assembled using advanced industrial programing techniques. Further savings amounting to another 7% to 8% are possible by integrating the mechanical and electrical systems into an overall system. And, last but not least, there are savings of 5% to 6% of total cost by cutting the construction time of projects in half. This means that there are total savings of at least 20% of construction cost possible through industrialized building-provided that the necessary industrial tooling is created.

The defeatist attitude expressed in your report is not helping our over-timid construction industry and government agencies to move ahead toward industrialization, which so far is the only proven answer to the physical aspects of the housing problem.

GUY G. ROTHENSTEIN ASPAD Inc. New York City

H&H: I am in full agreement with the majority of views expressed in the report with the possible exception of the pessimistic feeling about a possible technological breakthrough that would substantially reduce low-income housing costs. All in all, you are to be complimented on a job well done.

DANTE B. FASCELL Congressman State of Florida

\$17,000 per housing unit?

H&H: I differ with your analysis of the cost of multifamily houses for low-income families. As recently as four years ago, 3,000 to 4,000 housing units per year were built by private

enterprise in the Atlanta metropolitan area at a cost, exclusive of land, of \$3,500 to \$5,000 for a typical brick two-bedroom unit containing approximately 800 sq. ft. This cost included all plumbing, heating, on-site parking, landscaping, builder's profit and architect's fees.

Financing was readily available at local savings and loan associations, normally with a 15-year payout at an interest rate approximately 1% above that for suburban single-family house loans. Rentals ranged from \$45 to \$65 per month, typical land cost at that time amounted to \$1,000 per unit, and the units were operated profitably without realty-tax abatement or any write-down of the land cost.

We are quite frankly at a loss to explain why the so-called experts feel it is necessary to spend \$17,000 to \$22,000 per unit to construct low-income housing.

CONE M. MADDOX 3rd, president Dargan, Whittington & Conner Inc. Atlanta

H&H: Your stated prices of from \$17,000 to \$22,000 for multifamily housing seem unrealistic and very high. I am engaged in the development and construction of medium-priced multifamily housing at a much lesser cost.

Jack B. Lowell Jack Lowell Properties San Diego, Calif.

Builders who have replaced substandard housing in the big cities where the problem is most acute say 1) the greatest need is for units with three or more bedrooms in buildings over three stories high; 2) to meet that need, to provide adequate amenities (appliances and the like) and to make any profit, the builder has to put a price tag of \$17 to \$22 a sq. ft. on his product.—ED

How to trim housing costs

H&H: You stated that "the myth that new technology can cut costs continues to confuse the issue" and that "the shell is the cheapest part" of a house. This is true as you state it, but this is not the whole picture. Labor plus materials plus overhead and profit equals cost.

It is true that savings on bits and pieces are minuscule. It is now possible, however, to break down the physical mass of a high-rise building into modules (rooms or groups of rooms) that can be constructed on the ground. This avoids distribution of skilled trades in the vertical height of a building where no quality controls are possible, all hoisting of materials except finished three-dimensional modules and detailed planning of every joining of materials. Advantages are 1) saving of 50% of construction time, 2) substantial saving of building cost, 3) use of semiskilled and unskilled labor under quality-control conditions to ease the skilled-labor shortage, 4) 50 weeks of employment per year (an increase in some areas of 30%), 5) vast expediting of housing program with all labor, materials and technology now available. We need no new inventions, processes or ma-

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LETTERS

Structures Inc. in 13 countries and are being developed in three states in this country. For these reasons, we cannot subscribe to a bankruptcy of inventiveness and ingenuity that permeates too much current publication and results in pleas for subsidies.

LESTER GORSLINE, president Suspended Structures Inc. San Francisco

For more about reader Gorsline's 3-D modules, see p. 86.—ED

'Practically a textbook'

H&H: Congratulations on the excellent reportage in your special supplement. For us, it is practically a textbook because we have just organized a corporation to help resolve this crisis in some small way.

Our initial project is the first major urban renewal program to employ the modular housing concept. We have received tentative approval from FHA and sponsorship from the Greater Baltimore Committee.

ELLIOT S. KRANE, president Modular Facilities Inc. Old Bridge, N.J.

See p. 90 for the story of reader Krane's renewal project.—ED

A builder's 'undiluted effort'

H&H: You are to be complimented for your progressive action in presenting "Business and the urban crisis." There were two points made, however, upon which I would like to comment.

First, you indicate that "some new form of government subsidy" is needed to finance the staggering need for potentially profitable low-income housing. We recognize that government subsidy would bring shelter units within the reach of many people who would otherwise be unable to afford adequate housing. It is our opinion, however, that in the long run the true concept of widespread, low-income housing will only be achieved when the developments are capable of standing on their own merits as a profit-making enterprise. We plan to phase out all of our conventional construction activity in residential subdivisions and devote our undiluted efforts to the intriguing, worthwhile and potentially profitable low-income housing mar-

Second, you indicate that new technology cannot cut costs, that research is unlikely to find cheap, new materials and that labor practices are not likely to be changed in any way. With \$24 billion spent in 1967 on research and development in the U.S., it is hard to conceive that the building industry would not benefit—as every other industry has—from scientific study, application of industrialized methods and utilization of sophisticated technological systems.

While conventional construction systems have served us well in the past, they are not compatible with today's labor conditions, spiraling costs of building products, the need for increased rates of production, and emphasis on quality, durability, convenience and comfort. Current construction practices continually increase in cost. New construction systems will decrease in cost as they are improved and as the volume of application is increased.

Bearing these factors in mind, we plan to

initiate a comprehensive research program to develop and apply low-cost construction to the production of low-income housing. We intend to give particular attention to cost-saving design; the use of building materials that offer a proper balance between unit cost, in-place cost and maintenance factors, and the application of labor-saving methods of material handling and fabrication.

STUART E. PENNER Delta Building Corp. Virginia Beach, Va.

FHA's 'vast improvement'

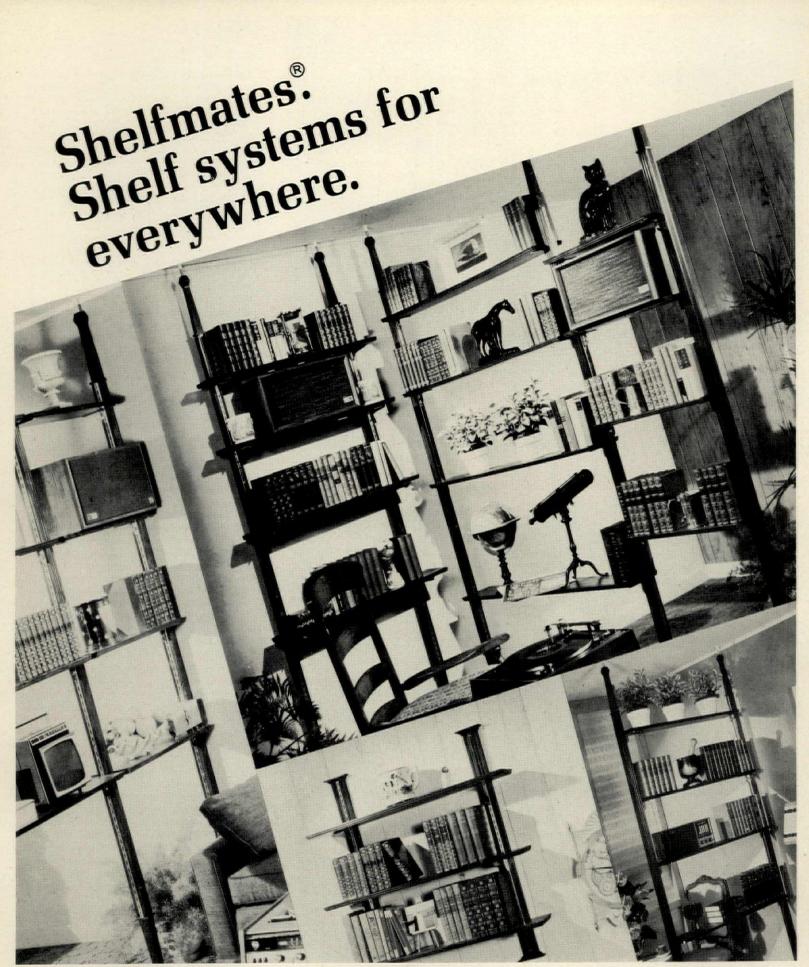
H&H: I want to compliment you on "Business and the urban crisis." However, the "Housing" section fails to recognize the vast improvement the Federal Housing Administration has made in its multifamily processing. Also, there are some inaccuracies which should be corrected.

FHA's 221d3 program, for example, has not "ground to a halt" as your article reported. In fact, in the last half of 1967, FHA received applications under the below-market interest rate program for 230 new projects with some 25,000 dwelling units. During the same period, we issued mortgage insurance commitments on 300 projects involving more than 30,000 units, and insured 116 projects with 16,000 units.

The reason given in your article for the supposed lack of popularity of the 221d3 program was "fantastic red tape involved in getting projects through local FHA offices." Experience in New York City was cited as the basis for the statement. There have been cases which have taken far too long to process. Sometimes this has been due to FHA, and there certainly has been room for improvement. Other times, however, the delays were attributable to the sponsor or otherwise beyond the control of FHA. The improvement in FHA processing in the last several months and the time limits given sponsors to get underway have resulted in these programs moving forward rapidly. But even before this I believe it is inaccurate to say that it took two years to process a 221d3 project in New York. No doubt this did happen in some instances due to delays by FHA, the sponsors and others. But there are other examples of very speedy processing. One example makes the point. The below-market interest rate rehabilitation project at 114th St. involving 37 buildings and 457 units was processed from application to start of construction in less than three months in 1965.

On a national basis, a recent survey of 200 multifamily projects indicates an average FHA processing time of less than one year. Under a new processing system recently put into effect in a number of offices we have cut that time in half.

On the subject of rehabilitation, I would like to call your attention to a multimillion-dollar program currently underway with FHA mortgage insurance in the Roxbury-Dorchester area of Boston. This involves over 2,000 dwelling units scheduled for complete rehabilitation by July 1968—about six months after the program was announced. We agreed to commit for mortgage insurance on this project in about a month's time, and some 700 dwelling units in 32 buildings are now undergoing rehabilitation. Several private developers are participating, including the parent corporation of the Boston gas utility.



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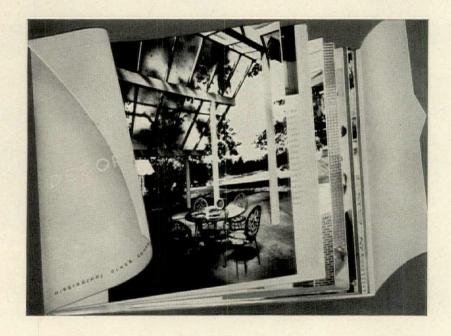
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LETTERS

In Pittsburgh, Pa., Action Housing Inc. was instrumental in forming a private housing-rehabilitation corporation sponsored by such major companies as U.S. Steel, Westinghouse Electric Corp., Alcoa, Equitable Life Assurance Co., Duquesne Light Co., Koppers Co. Inc., Pittsburgh Plate Glass Industries, Peoples Natural Gas Co. and many others. These companies have subscribed several million dollars to form the profit-motivated corporation which expects to build to a level of rehabilitation of about 1,000 units a year. Fha has already committed to insure the first element of the corporation's initial project.

I believe this is substantial evidence of the interest of private enterprise in rehabilitation as a valuable housing tool and one that can

produce a profit.

Many problems remain to be solved in meeting the urban crisis, but the FHA is making a substantial and effective contribution toward this goal.

P. N. Brownstein, asst. secy.-commissioner Department of Housing and Urban Development

Federal Housing Administration Washington, D.C.

Needed: 'people of dedication'

H&H: Beneficial Standard Life Insurance Co. has taken a large step in providing low-cost housing via Park Village. We acquired this 70-acre development in the changing community of Compton, which practically borders Watts, immediately following the riots, and it was done with private capital. We rehabilitated 480 dwelling units and contemplated redeveloping with about double the number of units when we were stopped by the high cost of long-term financing. We are now pursuing the development under FHA's 221d3 because it is only through the below-market interest rate that we will be able to provide the low-cost housing which is so needed.

But equally important, if not more so, is the operation and management of such a housing community. It requires people of dedication who are willing to become involved with the community, its problems and its people—not merely someone in an administrative capacity. We have tried in every way to gain acceptance in the minority community; that we have accomplished this is attested to by the absence of vandalism which so many developments experience.

Our residents at Park Village are happy with us; we are delighted with them and look forward to redeveloping our site to accommodate many hundreds of families who can enjoy living amidst greenery and open spaces.

GERALD I. MALLEN, assistant vice president Beneficial Standard Life Insurance Co. Los Angeles

Building codes bar the way

H&H: . . . an excellent presentation of the problems facing us. However, the "Housing" section did not touch on the problem of building codes, which in many areas strangle attempts to use new and acceptable building methods and products.

Our company provides financing for housing in seven states and finds staggering differences in construction costs from area to area. These differences are often the result of restrictive building codes maintained by





What else can you put in a home that'll make people take notice the way a Whirlpool Jack-Vac* does? This different built-in vacuum system offers them conveniences they never imagined . . . in every room, plus the basement and garage! That's why increasing numbers of builders predict it'll become a standard item in all medium-priced homes within a very few years.

Max Barken of St. Louis installs the Jack-Vac with wet pick-up system in all his homes right now. He's a trend-setter who wants an edge on competition.

In fact, **Max Barken**, **Inc.** is installing other high-end-of-the-line Whirlpool appliances, along

with the Jack-Vac, in all of the \$35,000 to \$50,000 homes which it's building in Ridgemoor Forest and other areas around St. Louis. The Jack-Vac has helped to close a lot of deals. And it adds extra profit, too.

Choose either of two types of Jack-Vac. The one with wet pick-up will do everything the regular dry system can . . . plus all sorts of mopping, washing and scrubbing jobs. After it sucks up liquids, dust, dirt, lint, etc., it carries them to the power unit which is installed in the garage or basement, and then flushes everything down the drain.

Here's something you ought to investigate!

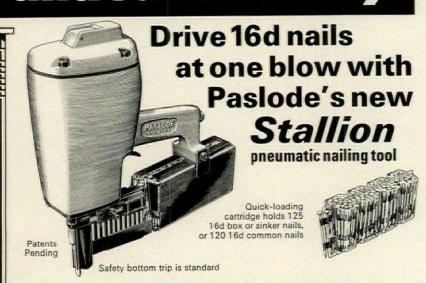
Whir	loool
WET OR DRY	P

Jack-Vac

BUILT-IN CENTRAL
VACUUM CLEANING SYSTEM

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Please tell me about t	he newest appliance for	modern homes.
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DRIVE FAST and save money



Now you can drive 16d nails the lowest cost way—with a portable cartridge-fed nailing tool. It's another Paslode first! The Stallion saves time and effort, eliminates waste of nails, makes every nail count with power to pull boards tight. 4,000 to 5,000 nails per hour is a practical on-the-job speed, including reloading time. For all its power, the Stallion weighs only 11 pounds. It operates on compressed air at 80 to 100 p.s.i.



■ The Paslode Gun-Nailer® portable pneumatic nailing tool drives 8d or 6d nails . . . has been proved rugged and dependable in five years of use . . . in cold weather and hot. (The Gun-Nailer was the first of its kind, too). It drives 7,000 nails per hour on the job. It has the power to pull warped boards tight. Yet it weighs less than eight pounds. Operates on air at 80 p.s.i. You can have the nails you need—8d or 6d, common or cooler, regular or galvanized, or screw-type, or ring shank, or acid-etched. They come in sturdy strips of up to 100 nails that load in seconds.

Let us tell you where you can see and try the *Stallion* or the *Gun-Nailer*, or both. Or send for literature.



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LETTERS

pressures to keep construction costs high for the benefit of certain processes or products. Certainly, realistic housing codes could reduce the end cost of housing without damage to the end result.

R. J. Breckinridge, president Conservative Mortgage Co. Minneapolis

Action: rehab and renewal

H&H: Please accept my congratulations on your comprehensive report.

You expressed a desire to hear of action taken by companies and offered the editorial pages of your publication as a forum for an exchange of constructive thinking on the subject. Accordingly, I am delighted to share with you what National Gypsum is endeavoring to do in terms of housing for lower-income families.

Very briefly, National participated in 1967 in the formation of Town Homes Inc. in Columbus, Ohio, which is financed and 50% owned by National, to progressively rehabilitate dilapidated houses under the discipline of the profit incentive for sale to owner occupants. The first of these is now about to be offered for sale.

WILLIAM D. SAMPLE, director Corporate public relations National Gypsum Co. Buffalo, N.Y.

H&H: For 12 years we have been buying housing that has been condemned or has deteriorated beyond the point of rehabilitation. We have torn these units down and then rebuilt and sold new homes on the same site.

By doing this we have transformed tenantoccupied slum property into tax-yielding, owner-occupied modern housing. This has been accomplished without the disruptions of urban renewal. The houses have sold quickly and profitably. Financing has been provided by a local savings and loan association.

I know this solution of the housing problem would not apply to all cities. However, I did want you to know what we have been able to accomplish here.

EDWIN J. FEILER JR., vice president Home Loan Co. Metro Developers Inc. Savannah

What's new in Wisconsin

H&H: There is a great deal of room for state and local government to function in the broad effort to resolve our urban crisis. We in Wisconsin have recognized the problems of metropolitan Milwaukee and are moving forward now to deal with some of the causes for disenchantment, alienation and decay.

One of the most exciting laws passed by the 1967 Wisconsin Legislature creates an indemnity fund to provide reinsurance for private insurance written to cover loans made to finance multiple-unit and other housing in congested urban areas. This new law is designed to encourage private contractors and lending institutions to improve slum-area housing. At the same time, the legislature has enabled Milwaukee to create a housing and urban development authority. The project and programs of this authority will be in slum clearance, blight elimination, urban renewal and housing projects.

WARREN P. KNOWLES Governor State of Wisconsin



If you're not a Weyerhaeuser Registered Home® builder, here's the kind of spring promotion help you missed.

(But you don't have to miss the big fall promotion.)

Our spring home selling push starts with a feature in April American Home magazine on a new WRH® home. We call it "the WRH home that can change to meet family needs" promotion.

needs" promotion.

Big, full-color Weyerhaeuser Registered Home ads will run in both April and May issues of American Home. The 2-page May ad lists WRH dealers across the nation.

In addition, there's local publicity, big local newspaper ads, model home displays and a full-color idea brochure.

And WRH builders around the country are building model homes with a direct tie to this national pub-

licity/advertising/merchandising.

Promotions like these are just one part of the full WRH story. As a WRH builder you get component packages at a stable price from a close-at-hand WRH dealer. New home designs.

As well as 90 per cent mortgage financing at competitive interest rates.

And Weyerhaeuser backs every WRH home with a 20-year warranty on all our wood products used in the home, an important benefit to both first and second owners.

Send the coupon for more information on what's in WRH for builders. Just in time for the *really* big fall WRH promotion.

To: Weyerhaeuser Company Box B-2851 Tacoma, Washington 98401

Please send me more details on the Weyerhaeuser Registered Home build-

ing program, and the name of my nearest dealer.

Name_____

Firm_____Address_____

State

Zip____Weyerhaeuser





TRUCK SALE!

CHEVROLET PICKUPS...CHEVY-VANS, TOO!

FLEETSIDE MODELS CS10934 & CE10934

Get more pickup for the price! Get special sale savings on a ½-ton Chevy Job Tamer with big 8-foot box, Six or V8 engine, custom comfort and appearance equipment, chrome hub caps, chrome front bumper. Also available at special savings: power steering and power brakes; 292 Six engine and 4-speed transmission; 396 V8 and automatic 3-speed transmission; Soft Ray glass, air conditioning and radio.

Get it all—plus exclusive coil spring riding smoothness, double-strong construction and functional truck styling—while the getting's good!



MODELS GS11005 & GS11305

Get more delivery van for the money! See your Chevrolet dealer for special sale savings on the spacious Chevy-Van 108 with 108" wheelbase and 256 cu. ft. of cargo space . . . or the Chevy-Van 90 with 90" wheelbase and 209 cu. ft. inside. If you buy now, you can get special savings on either model equipped with big 230-cu.-in. Six engine, chrome hub caps, chrome

bumpers, custom equipment, front stabilizer bar, left and right side West Coast mirrors. So buy your new delivery van now! . . . Chevrolet Division of General Motors, Detroit, Mich.

Celebrating 50 years of truck-building progress with special sale savings. See your Chevrolet dealer now!

Thinking big, campaign-style

If you're not going to kiss us, don't keep us standing on tiptoe

Boy, you can really tell this is an election year. The old pros are already pounding hard down the campaign trail hollering about how they're going to change the world—would you believe in ten years? Hardly anyone seriously thinks President Johnson can get even half of what he proposed in his housing message to Congress (see p. 5). But if he can get just half, the benefit to our cities, as well as the housing industry, will be tremendous.

Not to be outdone by the President, Governor Rockefeller of New York ("I will only run if drafted") proposed a plan last month for a super-duper Urban Development Corp. Rockefeller's UDC would have the power to move into any city without invitation from local authorities, to condemn property and to create industry and housing wherever it chose. It would be exempt from local real estate taxes but would reimburse the locality for 50% of the tax loss. And, *mirabile dictu*, it could ignore local building and zoning codes.

The amazing thing about Rockefeller's proposal is the straight-faced assurance by a handful of legislative leaders that it has a chance of passage in the state legislature. Of course, everyone knows it doesn't have a Chinaman's chance if it's submitted as proposed to the legislature. But, like the President's plan, it is the sort of golden-throated, bellowing promise that campaigns are built on.

The campaign action goes like this: When the Senate and the House start whacking off big chunks of the Johnson proposal it is glaringly apparent to the voting public that Congress, not the President, doesn't want to house people adequately and make their cities beautiful. And when Rockefeller's Urban Development Corp. is turned down in Albany, the legislature is the bad guy—Rockefeller was simply trying to help the cities.

All this is not to say that the President's housing message and the New York Governor's UDC plan don't have merit. Both, in fact, are just the sort of thing that we need as a nation and an industry. But Johnson and Rockefeller are well aware that the body politic moves only a step at a time—it never leaps forward. They also know that, aside from creating an image of good guys in white hats, they must think big just to get the constituency to think at all.

But the problem in thinking big is that too much seems to be promised to the recipient—in this case, the poor and the cities. A good chunk of these promises, whether they are implied or inferred, just won't be delivered—and all rational men know it. In other words, the promise often assumes the aspects of a cruel baiting of the victim, who was to have been the recipient of all the goodies.

No one would deny that the U.S. needs to produce at least 2½ million housing units a year for the next decade

—a volume the President vigorously espouses. But that much production is unlikely while we have other imperatives, like the war in Vietnam, which chew up so much of our national fiscal resources.

In a campaign mood, the White House could not resist labeling the President's housing message a \$10.3 billion plan, a bit of hyperbole which went all but unnoticed by most of the nation's press. Actually, \$4 billion of that total is for already authorized HUD and OEO programs. So the message only called for \$6.34 billion in new authorizations over the next five years.

In another flight of campaign fancy, the President pushed the cash-flow debenture for new towns. This is really a minor restructuring of FHA's Title X, which has not really gotten off the ground. The only real difference between Title X and the cash-flow debenture is that the President's scheme spells out specific dollar amounts and the debenture, or bond, gets the developer off the mortgage hook, a hook that always makes the borrower less attractive in the capital markets.

There are two things—both ignored by the housing message—which militate strongly against Title X and cash-flow debentures. First, no one has been able to develop a profitable new town, unless it's simply a bedroom community serving a major city. Second, the housing message stipulated that, where the cash-flow debenture is used, the development must have a mixture of subsidized and free-market housing. So far at least, this idea, too, has not been workable. And it's quite likely that the cash-flow bond would never cover the time the developer would have to take (maybe decades) to complete and fill his project.

Meanwhile, back at the state level, where campaign promises are actually heard all across the country, Rockefeller's UDC is perhaps a long-range ideal but certainly not a short-range, workable tool. True, something like a UDC should be created to handle urban problems in cities that will not, or cannot, do so themselves. But every member of the New York State Legislature owes his job to the folks back home. So it could be political suicide for most legislators to back a UDC that could ride roughshod over hometown wishes.

Many of New York State's mayors have said they like various features of the UDC; they are understandably doubtful, however, that various provisions of the plan are workable or even constitutional. We think they're right. UDC is basically a good idea, but to work it must involve the local political power structure, or it will simply become another promise which in effect baits its victim, the cities.

-RICHARD W. O'NEILL



Mix together prime location, a tasteful blend of old and new design, and just the right amount of luxury and you have a highly profitable formula for . . .

Skimming the cream off today's rental market

On the following ten pages you will see four examples of this formula in action. They are rental projects ranging in size from 21 to 400 units; their units rent for as much as \$600 and average over \$300; and, thanks to a high degree of excellence in planning and design, all have found enthusiastic acceptance from both tenants and the communities in which they were built.

High-rent apartments are obviously more expensive to build, and they require the best possible site (says one builder: "I would never try to upgrade a mediocre location with an expensive project"). But they offer compensating advantages:

They attract permanent residents—usually wealthy empty-nesters and younger executives—rather than transient families. So while they may rent slowly at first, once filled, they stay that way.

They bring almost no children of school age into the community—an important point in rezoning situations (see p. 84).

They require less upkeep because 1) tenants are older and less active, 2) there are fewer children and 3) tenants are usually used to living in expensive houses, hence are meticulous about maintaining—and indeed, improving—their home.

The owners of all four of these projects are convinced that the market for high-rent apartments is growing rapidly. It seems reasonable to conclude that the ever increasing numbers of older people who seek quiet, maintenance-free living are just as willing to rent as to buy if—and it's a big if—they can find an apartment project that fills their needs and their desires.

Equally important, the higher-class and usually apartment-leery areas in which these units must be built can be persuaded to accept rental projects—if they are well enough done to be a real asset to the community.

Starting on the next page, you will see four projects that meet these requirements very well indeed.

waterfront apartments in Massachusetts rent for up to \$515. Project is shown on p. 74.



TRADITION is represented by shingles that will turn silver gray in the salt air. Slot windows were controversial items, but are now well liked.

Just the right balance between tradition and newness made this waterfront project possible

Had the design—a blend of New England shingles and contemporary shapes—been less excellent, Glover's Landing probably could not have been built.

Marblehead, Mass., is an old, wealthy and conservative community; the thought of 114 rental units on one of its best sites (formerly occupied by a resort hotel) aroused considerable opposition. And while no zoning change was necessary, the town did consider condemning the land for a municipal park.

So Robert Brainerd, managing trustee of Glover's Landing Trust, which had bought the site, set up an architectural competition. Chapman & Goyette, a Cambridge firm, produced the winning design; the town, particularly planning officials, liked it; opposi-

tion eased; and the project went ahead.

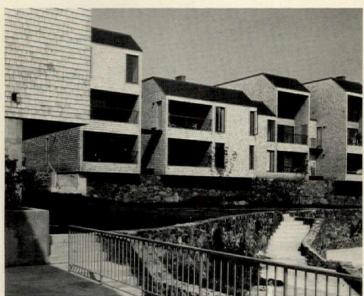
The design also proved to be a key to financing. Equitable Life Assurance agreed to a healthy \$20,000 average per unit, and added this comment:

"Had the project been pure colonial, we wouldn't have made a loan; nor would we have approved this design in any other location. But this design on this particular site is perfect."

Rents range from \$155 for a one-bedroom apartment to \$515 for a three-bedroom townhouse right on the water. The project is about 60% rented (the most expensive units went first) and units are now being rented at the rate of two a week—"A bit ahead of schedule," says Brainerd.



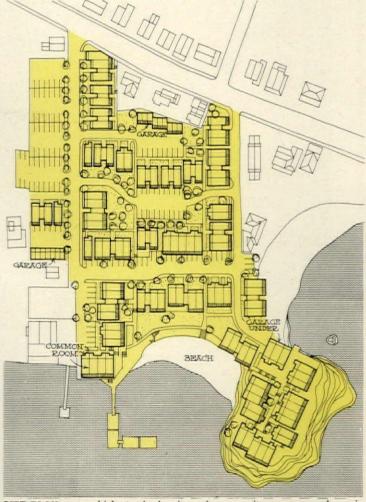
HIGH-RENT UNITS are on a rocky point jutting into Marblehead harbor. Rising land behind them allows many other units to enjoy the view.



BALCONIES overlook fieldstone retaining walls above beach. Typical twobedroom units rent for from \$240 to \$375, depending on their view.



PARKING is kept on lowest possible level so as not to interfere with view. There are also garages (site plan right), but they have not rented well.



SITE PLAN groups highest-priced units and community areas around a private beach. Each unit has one parking area, and there are extra guest spaces.

continued

The blend of old and new is carried all through Glover's Landing

Photos: Charles L. Norton

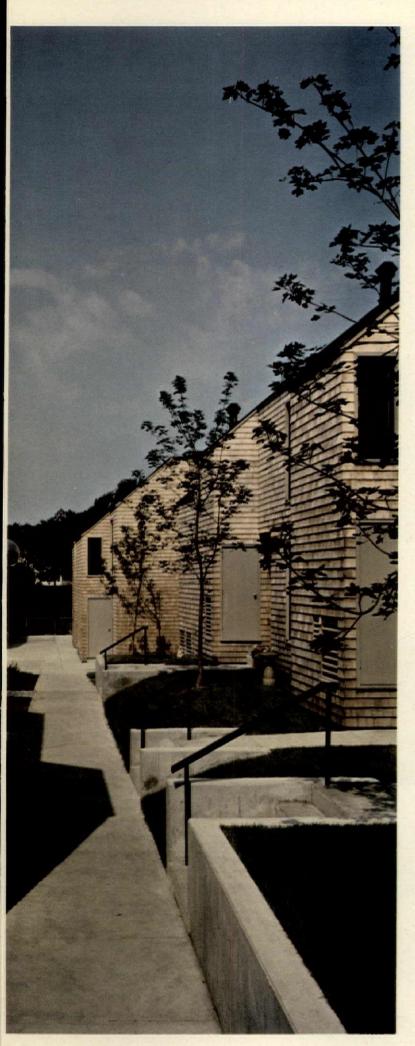


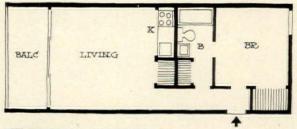




MODEL APARTMENT is furnished to match the exterior design of the project. Living room (top photo) and library or second bedroom (center) are strongly traditional. But the master bedroom (bottom) has a Japanese flavor. (Rationale: Sea captains brought oriental style back from their voyages.)



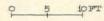


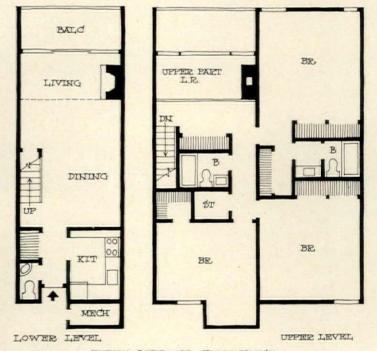


ONE BEDROOM APARTMENT



TWO BEDROOM DUPLEX

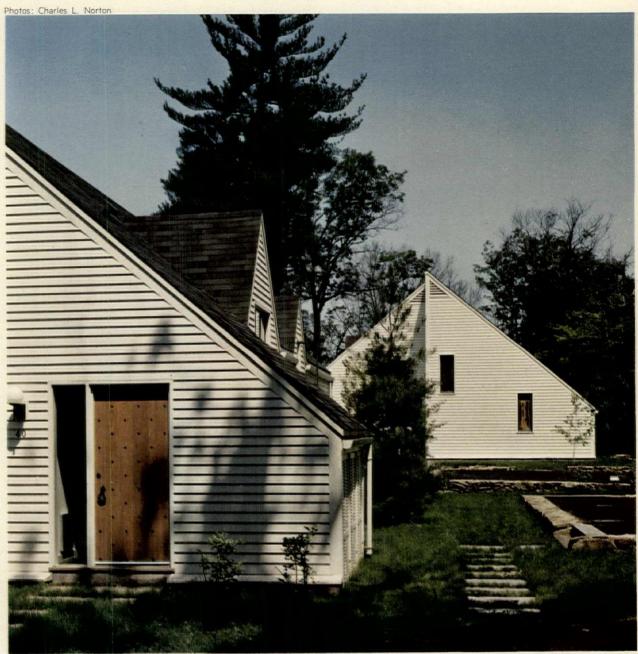




THREE BEDROOM TOWN HOUSE

STRAIGHT WALKS (*left*) echo simple lines of the buildings themselves. Drawings above show typical one-, two- and three-bedroom apartments.

continued



FARMHOUSE FEELING of apartments is maintained by white clapboards, steep gable roofs and set-in dormer windows.

Here's a small apartment project designed to fit into a corner of a high-priced subdivision

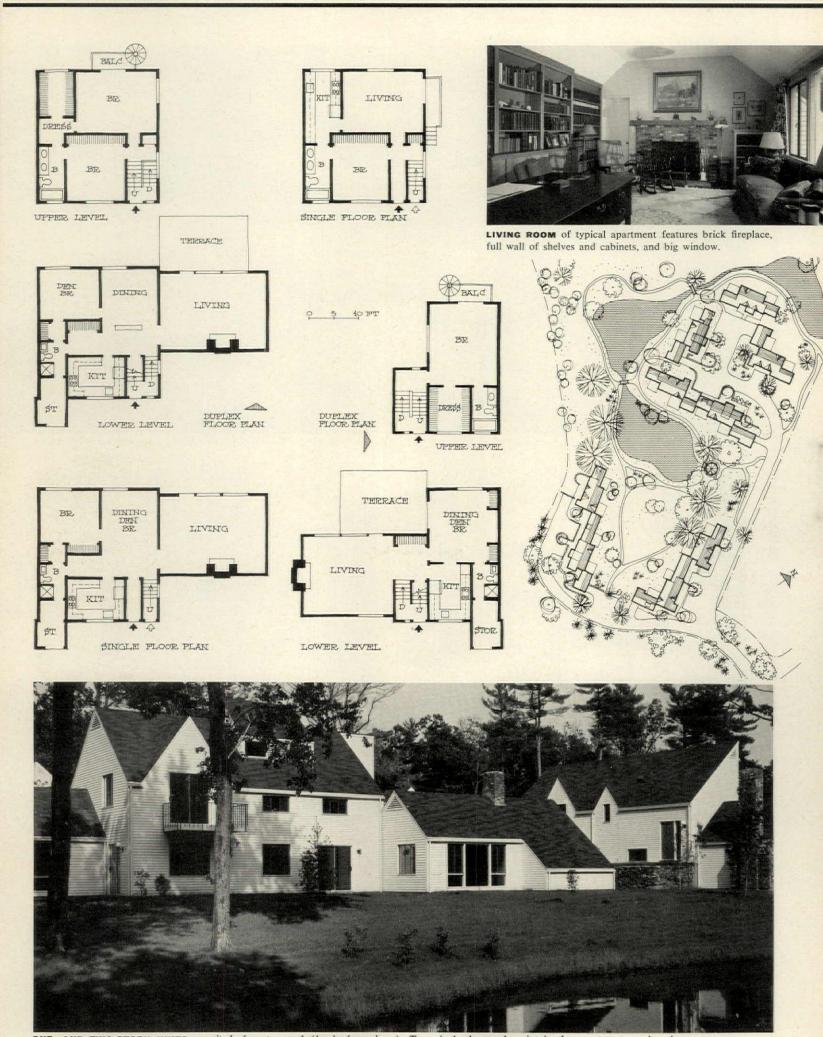
The apartments represent a distinct departure for Lincoln Development Corp. of Lincoln, Mass. Normally, the company sticks to developing land for expensive single-family houses (at this project, two-acre lots sell for up to \$20,000). But two reasons tempted Lincoln to try its hand at rental units:

- 1. Although Lincoln is a popular area with executives and wealthy empty-nesters, there are no apartments at all in the town.
- 2. One four-acre part of the 95-acre development—next to the property line on one side and well screened from abutting house lots—was ideal for apartments.

Architect Edward Collins II was asked to design

21 units that would 1) not hurt neighboring houselot sales, 2) provide efficient living and 3) retain the line and feeling of colonial farmhouses. Collins produced the units shown here; they rent at from \$215 to \$450, and have proven equally popular with empty-nesters and younger executive families who want to live in the area but aren't quite ready to buy or build their own home.

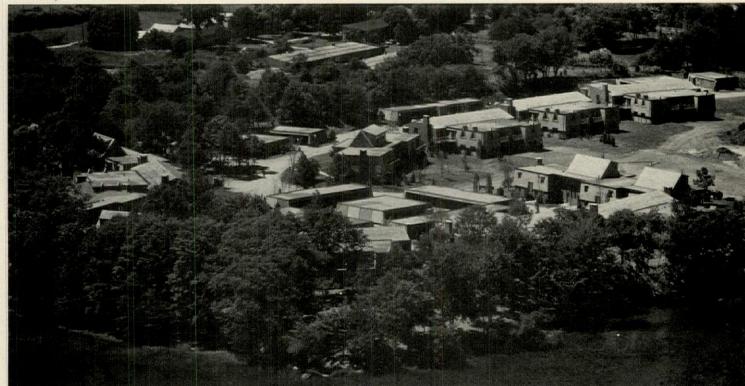
Says Robert J. Gustavson, vice president and general manager of Todd Pond: "We still aren't sure if we'll hold the apartments or sell them. But they're proving profitable now, and if we do sell them later we'll be able to share in the appreciated value of the project."



ONE- AND TWO-STORY UNITS are sited close to pond (land plan, above). Trees in background maintain the apartment area's privacy.

continued

Photos: Perry Studios



AERIAL VIEW shows project under construction; all units have a river view. Site plan (facing page) shows location of docks and recreation area.



LIVING ROOM of one-story unit has angled wall, visible at far left.



END WALL of typical building is used brick. These are townhouse units.

This riverside project convinced two towns that high-rent apartments can be community assets

The first town is Essex, Conn., where the project—Heritage Apartments—is located. Essex is a well-heeled, semi-retirement area that tends towards snobbery; no apartment project had ever been built there, and there were cries of outrage when Paparazzo Development Co. announced it would put up 104 units, renting for \$195 to \$235, on 14 prime acres overlooking the Connecticut River.

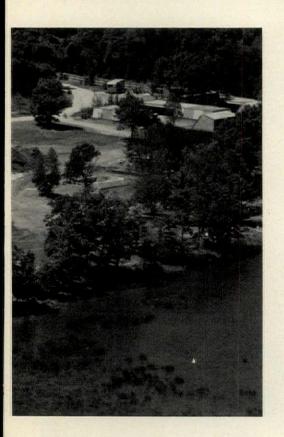
But there were no zoning laws to stop the job, so Paparazzo went ahead. Architect Joseph Stein settled on a modified gambrel-roof style and sited the buildings so that there was lots of open space.

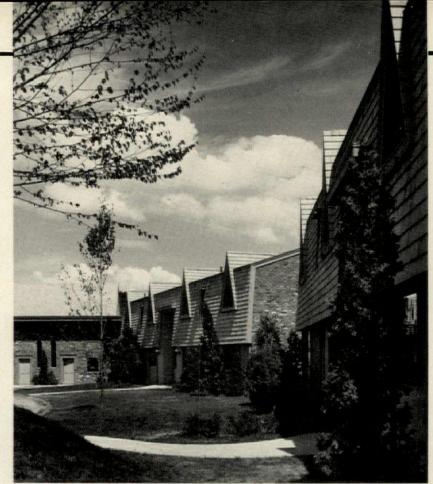
"Now," says Henry Paparazzo, head of the com-

pany, "it's the prestige address in town. The majority of our tenants are older people who don't want to keep up a house—many go south in the winter. There are few children, and almost no turnover."

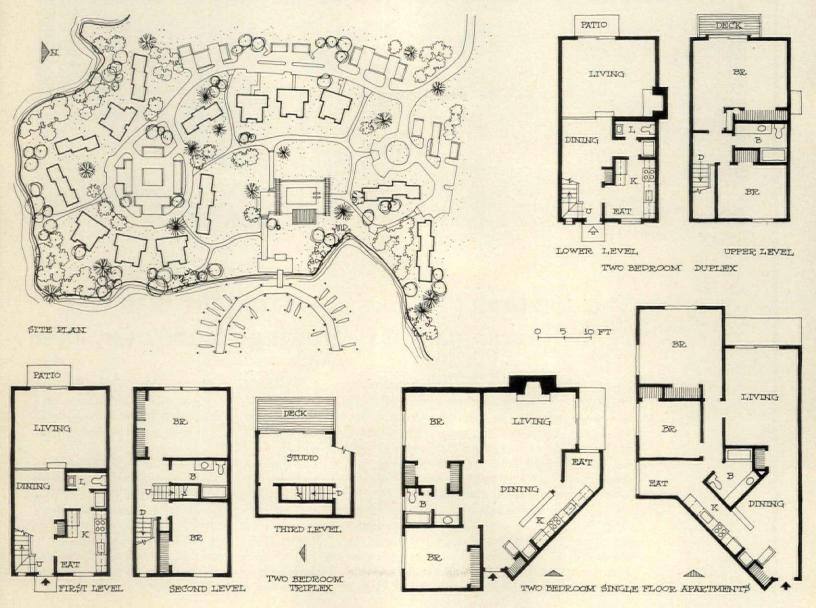
The second town is Simsbury, Conn., a wealthy Hartford suburb, where Paparazzo is now starting a 121-unit project with rents of from \$200 to \$350.

"It's a beautiful 21-acre site that had been held off the market for years," says Paparazzo. "People were afraid of what would be built there, and they wouldn't sell to us either—until we brought some of them down to Essex and showed them Heritage Apartments. That convinced them."





ENTRANCE SIDE of buildings faces drive, far left. Patios are at rear.



continued



LANDSCAPED WALKS lead from parking areas, foreground, to private entrances. Patios are hidden behind the low brick walls.

This big project offers proof that the high end of the rental market is growing steadily stronger

Four years ago, Georgetown seemed like something of a gamble. The site had definite assets—25 rolling and wooded acres near an interstate highway in Merriam, Kan.—but it was 15 minutes from the center of Kansas City, and by local standards, this was out in the boondocks. Further, the rents seemed high for this location: from \$155 to \$350, with two-bedroom, two-bath units averaging about \$300.

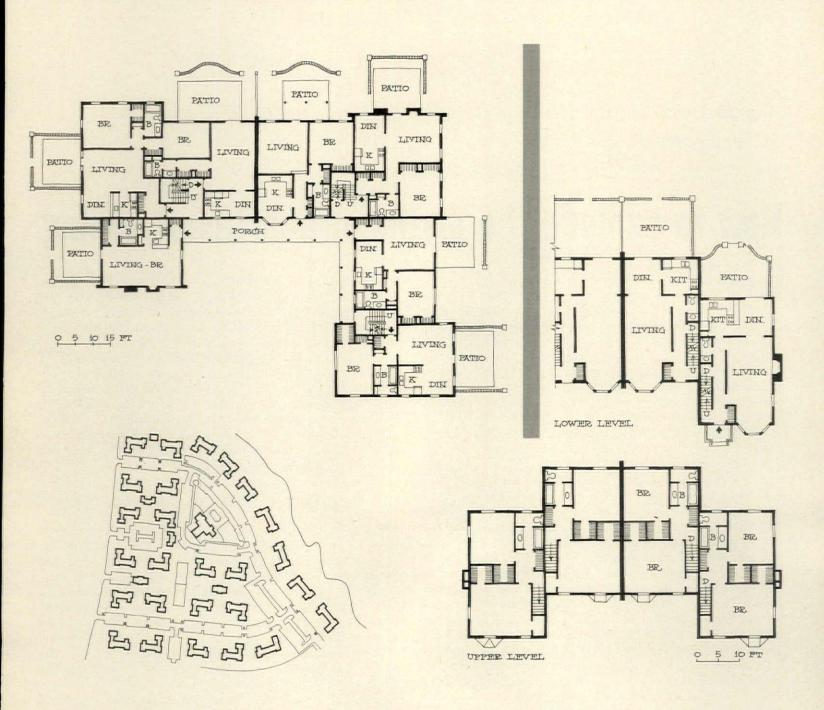
As it happened, the project hit its market on the nose. The last of the 394 units is just being completed, and supply has consistently run behind demand. Indeed, the market for the more expensive units proved so strong that Ernest J. Straub, who built the project as a joint venture with J. C. Nichols

Co., switched signals last year. He replanned his last few buildings so that, instead of one- and two-bedroom units and efficiencies (top drawing, opposite page), they include three-bedroom apartments that rent for up to \$600.

"These wouldn't have rented well two or three years ago," says Straub, "but the market is growing at the upper end. We find that almost all tenants who take these \$300-and-up apartments have moved out of houses; and they wouldn't have moved unless they'd found a place to live like Georgetown."

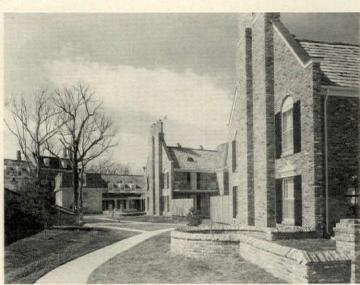
Straub feels so sure this market is here to stay that —on his own—he is planning another apartment project with most units in the \$300 range.

HOUSE & HOME





COMMUNITY AREA includes pool, putting green and game courts. Clubhouse holds saunas, indoor pool, billiard rooms, cocktail lounge and gym.



colonial design, similar to Georgian buildings in Williamsburg, Va., is the work of the architectural firm of Linscott, Kiene & Haylett.

Any apartment builder who's had to deal with a hostile zoning board will appreciate the value of a new report, highlights of which are presented below. It is a mine of information on . . .

How to explode the myths of apartment zoning

The myths—ranging from "Our school budget can't stand apartments" to "We don't want that kind of people in town"—are not new. But the need to refute them grows every day. Here's why:

The rental market is about to take off. A wave of young marrieds—expected to peak in the early 1970s—is beginning to look for housing. These couples, as a group, can't afford a house yet and are highly mobile (few stay in one place more than a year). If this demand is to be met, multifamily construction, which includes apartments, must rise from its current 37% of the total market to about 45% in 1972.

The big increase in apartment construction will take place in smaller cities and towns. Big cities have, for the most part, accepted apartments, and rezoning is generally a matter of specific sites. But smaller communities are a different story. Many have seen little or no apartment building in recent years, so the impact of a proposed rental project is much greater. And municipal officials tend to be far more sensitive to both the quasi-logical and the emotional resistance that often springs up.

It is in this area that "Arguments for Apartment Zoning" *, a 60-page report by Lee A. Syracuse, director of NAHB's Land Use and Development Dept., can be of enormous help to apartment builders. Syracuse learned the problems of apartment rezoning through prickly experience (box, facing page), and he has concluded that hard facts are the best weapons with which to combat the misinformation and hysteria that so often arise. His report is 1) a compilation of studies made to determine the effects of apartments on communities, 2) excerpts of key portions of those studies and 3) a bibliography for builders who might want complete copies of the studies. And there is also advice (including lengthy excerpts from two articles in House & Home) on how to present cases to a zoning board.

Since the myths are the biggest roadblocks to apartment rezoning, Syracuse's report takes the five most prevalent ones and shows how they can be exploded. Here are some of his arguments:

Myth No. 1: Apartments don't pay their own way

Not so, says Syracuse. In fact, "apartments not only pay their way in taxes to the community but, in an overwhelming number of cases, contribute monies above and beyond what it costs the local community to service them."

Two examples from the report bear this out:

1. A study made in Windsor, Conn., (by Syracuse himself) showed that a 115-unit apartment project produced almost \$32,000 in annual tax revenue (all but \$3,500 in real estate taxes) and took back from the town less than \$16,000 a year in services.

* Available from NAHB, 1625 L Street NW, Washington, D.C., Price: \$3 a copy.

2. A study made in Fairfax County, Va., showed that garden apartments brought in an average of \$245 per unit per year, and cost their municipalities an average of \$183 per unit per year—a surplus of \$62 per unit. And high-rise units did even better, producing an average surplus of almost \$100 per unit.

Even these figures, says Syracuse, don't tell the whole story. It is usual to allocate costs of roads and parking to individual apartment units on the same basis as to houses, even though such areas in an apartment project are privately owned and maintained. Furthermore, the apartments require far less road per unit: Syracuse quotes a study which shows that while 140 single-family houses will exact road costs of \$4,000 per year, 140 apartment units will cut this figure to \$400 per year.

Myth No. 2: Apartment children will crowd school facilities

Community concern over schools is understandable; two-thirds of the typical municipal budget goes for schools. And since the taxes on a new single-family house are seldom enough to pay for the education of the children who are likely to move in, it seems logical that an apartment unit, with a much lower taxable value, would create an even greater financial imbalance. And it seems equally logical that apartments would attract families seeking bargains in education.

In practice, however, this apparent logic does not hold up. The reason, says Syracuse, is that apartments are generally rented by single people, young families with preschool children, and older couples. Hence the impact of, say, 100 apartments on a school system is vastly different from the impact of 100 single-family houses.

As proof, Syracuse cites his own Windsor study. He found that the 115 units (21 one-bedroom and 94 two-bedroom) put just 15 children into the school system. By contrast, had the ten-acre site been developed with 20 single-family homes, according to averages taken from nearby subdivisions, it would have produced 1½ school children per house, or a total of 30.

Further, the cost of education varies widely with the level of schooling: In Windsor, says Syracuse, the net cost per year for an elementary pupil was \$204; for a junior high pupil, \$344; and for a high school pupil, \$400. By applying these costs to the average number of children at each level per apartment unit, and comparing them on the same basis to children in new single-family houses, Syracuse found that the cost of education for an average apartment was \$35, vs. \$387 for an average single-family house.

Two other factors have a strong effect on the school load produced by apartments: the number of bedrooms and the rental range. Two examples from Syracuse's report:

1. A study of a New Jersey garden-apartment project showed

that efficiency units produced no pupils, one-bedroom units produced .037 pupils per unit, two-bedroom units produced .39 pupils per unit and three-bedroom units produced one pupil per unit. Obviously, then, the mix of an apartment project will be of great concern to a municipality.

2. A survey made in Montgomery County, Md., showed that luxury apartments produced .02 pupils per unit, so-called standard apartments produced .15 pupils per unit, and "family" apartments produced .33 pupils per unit. Conclusion: the higher the rental range, the lower the school load.

Finally, Syracuse points up a key conclusion from the New Jersey study: Apartment occupancy is restricted to a particular stage in the family cycle. As apartment families grow older and larger they move into conventional homes, so the school load from the apartments tends to remain the same.

Myth No. 3: Apartments bring 'social sludge' into town

"This type of argument," says Syracuse, "many times becomes part of a whispering campaign and, while rarely stated publicly at an open hearing, could snowball into the real reason an apartment development is rejected by the municipal fathers."

The fact is, according to the report, the only significant difference between apartment and single-family-home dwellers is agethe majority of apartment tenants are young. Syracuse cites a study that breaks down the occupations (professional, managerial, sales, supervisory, clerical, laboring, etc.), of residents in an apartment project and in a nearby singlefamily subdivision, and compares the percentages in each category. The results are surprisingly similar; if either type of housing enjoys a "status" edge, it is the apartment, with slightly higher percentages in managerial, sales and supervisory jobs.

Says Syracuse: "The apartment should be looked upon as a service to the community, providing homes for the young who are as yet unable to purchase a . . .

house, and . . . to older couples who no longer require the space of a single-family house after their children marry and leave home."

Myth No. 4: Apartments will drop property values

Not true, says Syracuse, providing-and here he lays the responsibility on the developer's doorstep-the project is well conceived and executed. If it is, it will enhance the value of the neighborhood, and the increased density brought by the apartments will also boost the value of nearby commercial property.

The question of decreased property values arises, Syracuse believes, because townspeople are all too familiar with the bland designs of public housing projects found in many cities, and with the cheap speculative apartment projects that sprang up during the early '50s. If no apartment projects have been built in a town in recent years, residents may not realize that something far better is possible.

Syracuse offers this advice on the two main elements of a proj-

- 1. Design: It should be interesting, and "every attempt should be made to provide the apartment development with the same residential quality as its single-family neighbors."
- 2. Site planning: Play areas for small children and recreation areas for older ones are important, particularly if there are no nearby municipal parks. "If possible, cluster the buildings around a core of open space, with roadways and parking on the periphery . . . allowing children to move from their homes to the playground in safety."

As a clincher, Syracuse suggests that the developer get the leading real estate man in the area to testify that the project will not

have a deleterious effect on prop-

"Such a man has a reputation to protect," says Syracuse, "and everyone knows he cannot be bought. In my experience, the reputable realtor will testify for the apartment development in good faith if the design, landscape and traffic control have been given proper consideration."

erty values.

Myth No. 5: Apartments will crowd our highways

The best way to combat this argument, Syracuse believes, is to retain a traffic engineer. This will insure that the project makes sense from a traffic point of view and will also give the developer the expertise necessary to deal with the kind of misinformation that often comes out at hearings.

(But, he adds, remember that the engineer's jargon can also be misleading if not correctly interpreted. For example, when he talks about a family generating eight trips a day, this includes not just trips to and from work, but all stops along the way.)

Syracuse points up two key facts about apartment traffic:

1. The higher the density of an area, the fewer automobile trips a day are made by the average family. A Chicago transportation

average of nine trips a day, while an apartment, with 600 sq. ft. of land as its share, generated only four trips a day. 2. The more cars in the family, the more trips a day the family makes. In his Windsor study, Syracuse found that apartments pro-

duced one car per family, single-family houses, one and a half

study showed that a house on a 10,000-sq.-ft. lot generated an

cars per family. Finally, Syracuse offers an answer to the oft-raised argument that a particular road is too narrow or winding to handle traffic from a proposed development,

"Seldom have I heard the argument that the road is unsafe for all traffic and should have been widened and straightened years ago. If the road is not corrected the apartments cannot be built, but if the apartments are not built, the road most likely will not be safe for years to come."



Lee A. Syracuse has been director of NAHB's Land Use and Development Dept. since 1962, but it was his previous job-as town planner of Windsor, Conn.—that provided the material and the impulse to write the report that is quoted in this article.

"I bear scars," says Syracuse. "In 1960 I managed to get an apartment ordinance enacted Windsor, and the town's first project-115 units-was built. Then opposition started to appear. I heard about 'barracks . . . social sludge overcrowding our schools . . .', and I realized my job was in jeopardy.'

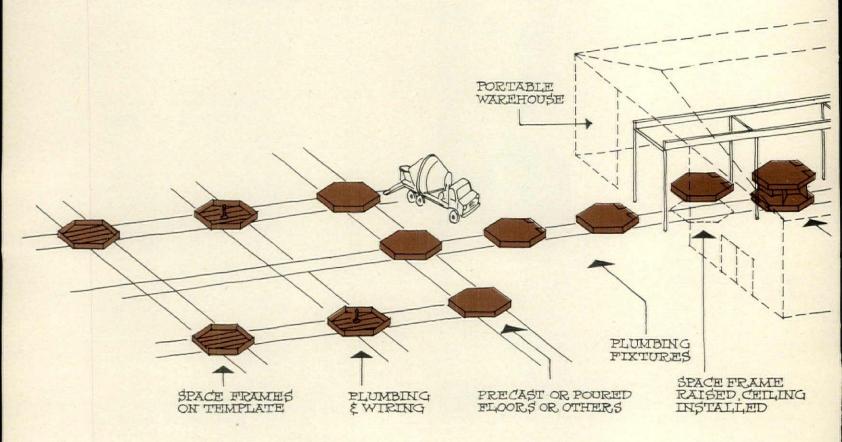
So Syracuse worked up a survey, got Boy Scouts to go out and knock on doors, and came up with a study-some of it cited in this report -that proved that apartments-far from being detrimental to Windsor were actually beneficial.

Nevertheless, Windsor repealed its apartment ordinance (it is only now being reconsidered for passage), and Syracuse realized that most of his difficulties grew out of emotional half-truths and just plain misinformation on the part of citizens and town officials alike.

"Facts are the only answer," says Syracuse.
"That's why I did this report."

Stackup housing: What are its

If stackup doesn't succeed, lack of effort won't be the reason. Most major building-materials manufacturers are putting money into stackup research. The entire mobile-home industry is pushing stackup. Dozens of new companies have been organized to build stackup prototypes. And FHA experimental-housing grants are encouraging stackup. Some of the first stackup tryouts are scheduled to start in a few weeks. There may be some winners. But the real question is: Will there be any takers? Stackup's supporters say it will shake up the homebuilding industry. Stackup's critics say it may be a way to house poor people but won't make sense to homebuilding in general. To see where stackup stands now—and where it might go tomorrow—start reading below.



So much effort, money and hope have been thrown into stackup housing that its success seems inevitable.

Hope is strongest among government housing officials. They are gambling on stackup to produce the six million new housing units in ten years that President Johnson has called for in the urban slums.

Hope is also strong among mobile-home manufacturers. They feel they have exactly what it takes—in production equipment and practical experience—to make stackup housing work.

Materials manufacturers are sponsoring

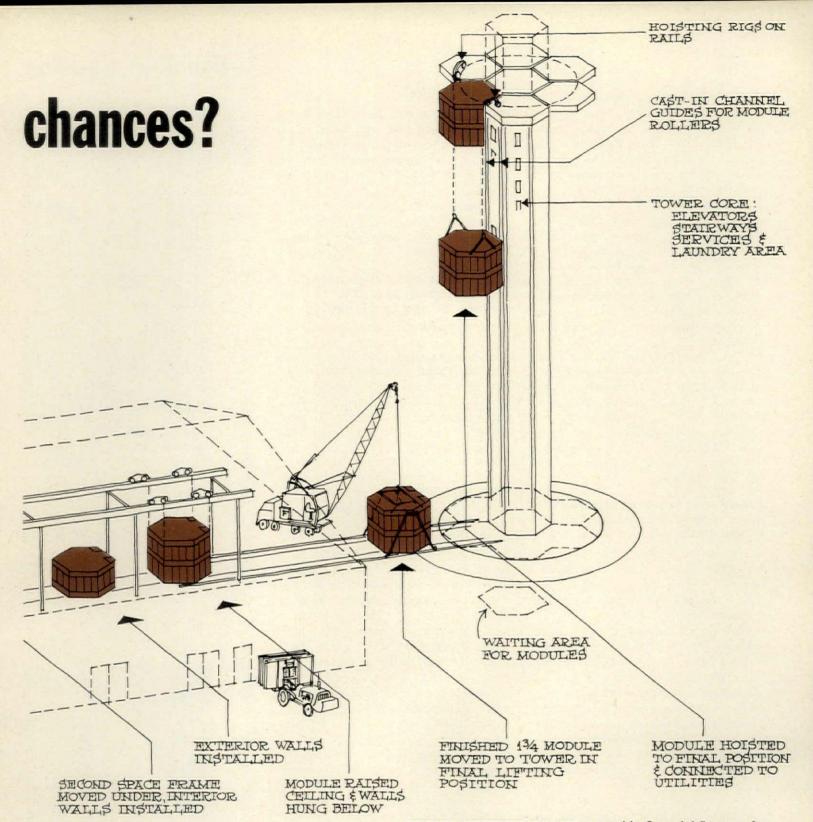
stackup research in the hope of being in on the ground floor when and if stackup proves feasible.

Stackup has not had a real tryout yet. The random-stacked concrete boxes of Habitat '67 (H&H, July '66), a highlight of the Canadian World Exposition, were not a fair test because of high-cost production and engineering complications. And the stacked concrete boxes used by H. B. Zachry Co. to build a San Antonio hotel (H&H, Feb.) were a rush job demanded by another World's Fair.

But now tryouts are about to start.

Within the next few months several stackup prototypes, in the works for two years or more, will be built around the country. A partial listing:

1. Three-story apartments made of 12' x 30' steel boxes stacked around a 12'-square plumbing core (see p. 88). Housing Research Inc., the designer, will set up a 12-unit prototype at Michigan City, Ind. Anticipated cost minus land: from \$8 to \$9 a sq. ft. Special features: The boxes can be stacked as high as six stories, will adapt to irregular terrain without expensive foundation work and specifications



STACKUP APARTMENT MODULES proposed by Suspended Structures Inc. may be any shape—hexagonal, shown here; rectangular; triangular or square. Industrialized assembly is typical of stackup housing schemes.

make them suitable for a No. 2 fire zone.

2. Two-and-a-half-story townhouses made of stacked 12' x 40' wood boxes (see p. 90). Modular Facilities Inc., the designer, expects to fly six of these into Baltimore by helicopter—possibly moving 2½ stories per load. Anticipated cost minus land: from \$8 to \$9 a sq. ft. Special features: The boxes are made of lightweight materials like honeycomb sandwich panels and will include lightweight products like molded-plastic bathrooms.

3. Low-rise apartments made of stacked 12' x 36' expansive-concrete boxes. Con-

rad Engineers, the designer, will build a 26-unit prototype in Richmond, Calif., using a shrinkage-compensating cement made by Chemically Prestressed Concrete Corp. Anticipated cost: not available. Special features: Walls will be only 2" thick and floors and ceilings just 4" thick, so each box will weigh only 15 tons.

4. One- and two-story townhouses made of stacked 12' x 56' wood boxes with fold-out roofs (see p. 92). Glen Development Co. will set up 104 of these rental units in Amherst, Mass., trucking the boxes from a Virginia assembly plant. Antici-

pated cost: about \$10 a sq. ft. Special features: The units have an unusual contemporary design—steeply pitched roofs and two-story-high living rooms—that is unidentifiable with stacked-box housing. Reason: The townhouses were originally designed for conventional construction and adapted directly to modular-box prefabrication with no major design change.

Every building material will get a tryout in the stackup housing race. Not far off are filament-wound reinforced fiberglass boxes, says modular-box architect Robert Martin Engelbrecht. And Borg-Warner Corp. has hired a plastics-engineering company to try making stackup housing out of thermo-formed plastic sheet, creating boxes that may include molded-in sofas and kitchen cabinets. The model is a new camper molded of plastic skins laminated to a urethane-foam core and marketed by Ford Motor Co.

Different schools of stackup technology are competing, too. One of the sharpest departures is the hanging-box system of Suspended Structures Inc. Instead of stacking boxes on top of one another, Suspended Structures will hang them from the top of a utilities-and-elevator tower by cables and rods (model at far right and drawing on pp. 86-87). This method permits 1) a wide choice of structural materials and designs because the boxes are nonloadbearing, 2) economical land use because of the compact footings and 3) simplified hoisting because the lifting equipment is installed at the top of the tower. The system will be used to add a three-story wing to a hospital at the University of Michigan.

Right now stackup housing's most vociferous promoter is the mobile-home industry

A year ago the Mobile Homes Manufacturers Assn. (MHMA) produced an 80-page proposal—"New Housing Systems Concepts"—on adapting mobile homes to multi-story building systems.

Their proposals boil down to two basic methods: direct stacking and stacking within a frame. The frame system appeals to the manufacturers because it gets rid of loadbearing problems and might help retain the mobile home's mobility. Says Richard Beitler, MHMA's director of land development: "Our \$10,000 modular units could be replaced with new ones whenever a family wished to change decor and appliances. Eventually, when these structures become standard in major metropolitan areas, a businessman could ship his modular home to another community and place it in a similar high-rise rather than bothering with buying a conventional home and selling the old one." Needless to say, MHMA's frame system is still on the drawing boards.

So far, the mobile-home people have progressed no further than two-story stackup. Their most notable project—by Magnolia Homes—went up in Vicksburg, Miss., a few months ago. Stacked wood boxes, lining two sides of a street, provided minimal low-income housing for \$8,000 per family. The idea wasn't new: Similar two-high units had already been used for housing at remote construction sites and ski resorts.

Fixed-site housing poses production

problems for mobile-home manufacturers. It forces them to beef up their basic boxes to meet building codes and structural requirements that don't apply to mobile homes. This means manufacturing-line changes that amount to a wholesale retooling.

Mobile-home manufacturers are also not equipped to deal in building systems. Their basic product is a merchandising package rather than a construction component.

Only a few specialty plants are equipped to adapt mobile homes to stackup

Specialty manufacturers usually have two kinds of assembly lines. In addition to equipment that turns out standard mobiles with 2x2 framing and sheet-metal siding, they have facilities for relocatable classrooms, office buildings, sectional houses and similar structures requiring 2x4 studs and other conventional-size building materials

One such manufacturer is Guerdon Industries. Its Magnolia Homes division, besides making the Vicksburg boxes, is also producing the Amherst townhouses for Glen Development.

Housing Research's steel boxes in Michigan City are being manufactured on a special short-run assembly line operated by a mobile-home manufacturer for sectional classrooms. Says the steel-box designer, Ronald Goodfellow: "There aren't many mobile-home manufacturers who could adapt to our steel-module system. Their managerial and marketing structure just doesn't lend itself to this. It won't be easy for mobile-home companies to get into urban multifamily work."

Goodfellow's point is echoed by Alan Glen of Glen Development. Glen says he got no response when he asked several large mobile-home companies to consider prefabbing his townhouses.

But Glen feels that specialty companies like Guerdon could contribute a great deal to fixed-site housing. His modular-box townhouses contain building materials, appliances and fixtures that would have been too costly for the modestly priced units without Guerdon's large-volume buying power. Glen also likes the consistent quality of assembly-line production and the fact that his units can be assembled and stockpiled while streets and foundations are being built.

In fact, Glen is so completely sold on modular-box housing that he has two more projects in the planning stage.

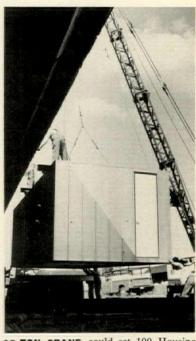
"Mobile-home people have the ability to do any kind of residential design," he says, "but they'll have to be pushed into building to other people's specs. If they ever get married to top-notch housing

Stackup housing



concrete boxes speeded construc-

Budget stackup



25-TON CRANE could set 100 Housing Research apartments in 25 working days.

involves all construction materials and many price ranges

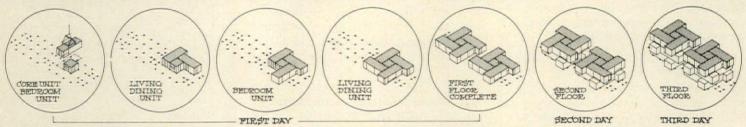


STEEL BOXES stacked on masonry walls to make 1,500-sq.-ft. townhouses were shown at a Toronto home show last year. But the system has yet to appear in the market.

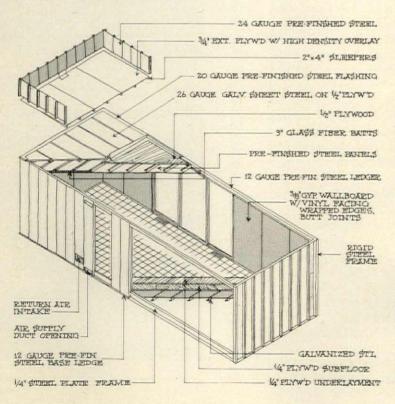
SUSPENDED BOXES (shown in scale model of Suspended Structures Inc.) permit wide choice of structural materials because they are nonloadbearing.

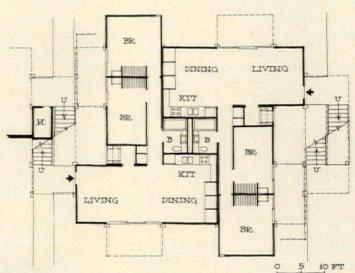


systems like this are offshoots of mobile-home technology



STACKED-UP CLUSTERS of living units and utility core can extend from two to six stories in endless chains, permitting up to 40 families per acre.





WRAPAROUND PLAN for proposed \$8-per-sq.-ft. apartments uses bath-room-utility core and outside stairways. Designer: Housing Research Inc.

STEEL BOX combines column-and-rail frame and interlocking steel-panel walls. The unit can be manufactured on a mobile-home-type assembly line.

continued

architects, they can produce an outstanding product."

Some mobile-home manufacturers have found a way to forestall facing the problems of fixed-site housing. Beefed-up mobile homes—called "interim" housing—are being sold to big cities for use in renewal and rehab areas. They provide quick shelter for families temporarily displaced while their conventional living quarters are being replaced or remodeled. Examples:

- 1. Ritz-Craft Corp. of Shamokin, Pa., sold 30 mobile homes to the City of Chicago for use by tenants of 144 apartment units that U.S. Gypsum Co. is remodeling. The interim homes meet basic building codes. They have fire-resistant walls and ceilings, fire-escape doors and fire-alarm systems. And they are completely furnished, so the tenants—who will occupy them for three or four months—need only bedding and cooking utensils.
- 2. Atlanta is planning to buy 60 beefedup mobile homes as interim housing for people whose homes will be torn down for public housing complexes.
- Washington, D.C., will buy an unspecified number of interim-housing units for several renewal areas.

Stackup housing is supposed to cost less than conventional housing—but does it?

The savings are assumed to lie in assemblyline efficiencies, lower-cost labor and shorter job time. So when stackup-housing people discuss the merits of their systems, they usually talk in terms of \$10, \$9, \$8 and even \$7 a sq. ft.

But these low-cost figures rarely include land, taxes and the other costs of conventional housing. And they rarely include plant overhead and engineering costs.

The lowest construction figures are based on high-volume production runs of one-of-a-kind boxes that would permit heavy use of computers and automated assembly equipment. These boxes offer few amenities and are geared exclusively to families with substandard incomes. The higher construction figures come close to the cost of conventional housing when the job is totaled up.

Stackup's true costs are not yet known. And people who dwell on them are being shortsighted.

If modular-box building systems do prove to be the magic formula that creates six million urban housing units in ten years, the reason will be only indirectly related to construction costs. Instead, their high degree of standardization would:

 Simplify job engineering and programing so that projects could get started faster than with conventional construction.

- Speed up official okays because stock-module systems could be approved by model number.
- 3. Give housing authorities better control over massive projects by drastically reducing the variables.
- 4. Reduce the length of time that displaced tenants are without permanent housing.

Modular-box construction—like any other comprehensive building system—should be a more efficient way to build because one team has responsibility for design, components and construction.

But few of these teams exist today. One example is the Modular Facilities design and production group, set up just last fall to produce the Baltimore townhouses (right). It combines Eastern Portable Building Products Corp.; Joseph Nelson, AIA architect; Jack Daft, ASLA landscape architect; M-G Associates, design consultants; a public relations man and a lawyer. President Elliot Krane, former advertising manager of a mobile-home trade magazine, was the catalyst who brought the group together.

Another example is the group that produced Alan Glen's townhouses. Says architect Tiffany Armstrong: "This was truly a team effort. The architects worked on an even plane with the developers, the prefabricators and FHA directors to produce the final project. Each group added its critical knowledge and enthusiasm."

FHA experimental programs are the main incentive behind stackup projects

Builders who condemn FHA for its red tape would be amazed at the speedy processing given to untried modular-building systems in recent months. What's more, FHA men work hard to get stackup projects past obstacles like local code and labor resistance.

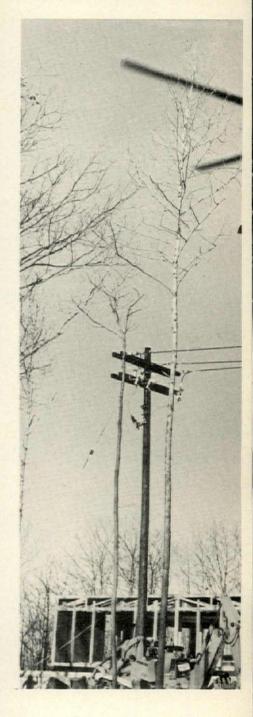
Says Alan Glen: "FHA devoted a lot of executive time to our project. They processed the job in four weeks. They attended local plumbing-code meetings. They worked with the prefabber. They accompanied local building officials on an inspection tour of the prototype. They got us financing (221d4) after the insurance companies had turned us down."

This willingness to help stems from strong support by FHA's Washington head-quarters. The national FHA men have set up a quick-processing program called AMP (for Accelerated Multifamily Processing), and they are putting pressure on local FHA offices to follow through.

Local code and labor groups are not so accommodating.

Labor unions, of course, are afraid that any form of manufactured housing will put

Module by air:

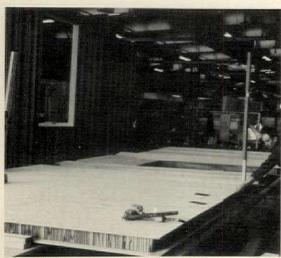




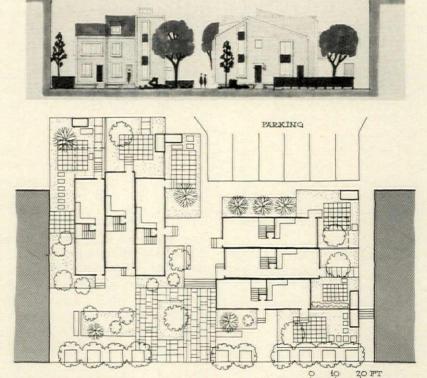
New components will lighten the load in this Baltimore job



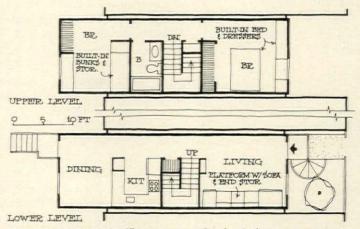
TEN-TON HELICOPTER, already used for jobs like that above, may carry 2½-high boxes into Baltimore.



HONEYCOMB CORE laminated between plywood makes lightweight floors for townhouse modules.

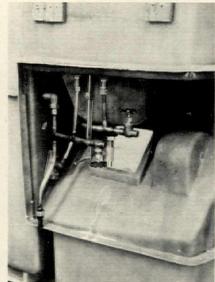


VEST-POCKET PROJECT of six townhouses in Baltimore is intended to test delivery of prestacked modules by helicopter. Designer: Modular Facilities Inc.



BUILT-IN FURNITURE like mattress and sofa platforms, dressers and tables would help make the townhouses feasible for low-income families.





MOLDED-PLASTIC BATHROOM keeps townhouse modules lightweight and speeds hookup in the field. A similar molded unit was used in the concrete modules of Habitat '67.

them out of work. And the stackup box—preplumbed, prewired, prepainted, pre-trimmed, preroofed and prefloored—is guiltiest of all. Alan Glen beat plumber resistance against his stackup townhouses by finding a union plumber in Massachusetts who would work in the Virginia assembly plant.

Other prefabbers have taken the same route. Boston engineer Sepp Firnkas headed off union resistance to precast-concrete housing by using factory union labor both to cast and erect his projects. Firnkas and Boston architect Carl Koch have built a thousand low-income apartments with a concrete-panel system called Techcrete (H&H, July '67).

Will stackup systems really cut out labor? No, says consulting engineer James Chaplin of Zetlin, Desimore, Chaplin & Associates: "Labor won't have any less work to do. In fact, they'll have more. The economics lie in the speed and efficiency of preassembling parts, not in eliminating labor." Chaplin is the consulting engineer for Suspended Structures Inc.

Local building codes may prove to be an easier obstacle than labor unions

Where code officials are at least willing to look at the product, stackup has a fair chance.

Alan Glen's townhouses (right) more than satisfy the code in Amherst, Mass., because they are glue-nailed and cross-braced to survive 800 miles of road travel. They also meet the Massachusetts plumbing and BOCA codes. Their party walls—high-density board plus insulation plus 2" dead-air space—are better sound-deadeners than 8" concrete block. And when Amherst officials inspected Glen's prototype and his assembly plant, they were convinced.

But Amherst is a progressive college town. It was one of the first in the country to approve a planned-unit development (H&H, July '66). Other communities—especially in large metropolitan areas—could take much more persuasion.

One source of code resistance will be new materials—particularly plastics. Stackup boxes must be lightweight for hoisting and loadbearing purposes, so plastics could be a natural asset.

The molded-plastic bathroom used in Modular Facilities' townhouses weighs 350 lbs., including all fixtures. It was introduced in the U.S. last December by Crane Co., which acquired it in Canada after a tryout in Habitat '67. And it may soon be followed by a molded kitchen.

Johns-Manville has been researching fireproof plastics for use as facings on sandwich panels. It has now announced an asbestos-reinforced thermoplastic sheet laminate that has lower thermal expansion than steel.

Says inventor Christian Frey of Suspended Structures: "Some of our big manufacturers—Ford Motor Co., for example—have potential building materials they don't know what to do with. These materials could lead to breakthroughs in three-dimensional modules."

Some of this product research may ultimately benefit conventional homebuilding. And certainly homebuilders will benefit from the efforts of FHA men and other stackup supporters to liberalize codes.

Do the new stackup systems have any direct benefits to offer homebuilders?

Not unless builders themselves take the initiative—as Alan Glen did—and approach manufacturers.

Modular-box systems could be flexible enough for some conventional multifamily builders. And regardless of how low their construction costs may be, modular systems could offer operating advantages. Besides being able to overlap site work and construction, a modular-box builder could operate in several widespread areas at once without needing a large staff.

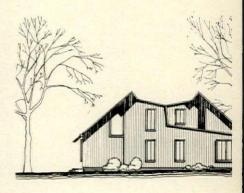
For the time being, however, stackup housing will get attention primarily as an answer to low-income housing needs. Most of the systems tried will be too streamlined and too basic for general housing. Their true costs will be hidden in a smokescreen of promotion talk and confusion about what percentage of a project is subsidized by manufacturers and/or government. And if they do catch on, they won't compete with conventional building because they will provide housing that no one else could afford to provide.

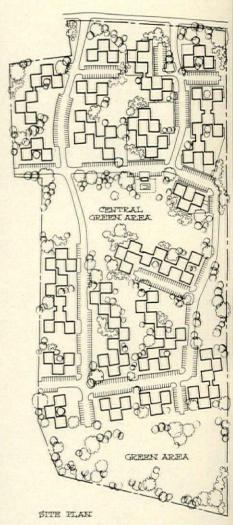
Stackup will also have competitors. It has yet to prove itself a better low-income-housing provider than precast-concrete panels. And it is unlikely to win any ground away from the integrated sub-components systems used in commercial construction. Modular boxes are impractical for most commercial buildings because of their limited spans and interiors.

A footnote: For those intrigued by the idea of delivering houses by helicopter, it would be useful to know Elliot Krane's estimates from Sikorsky Aircraft. For Krane's six-unit project in Baltimore the helicopter rental, at over \$3,000 a day, could amount to \$1,000 an hour. But those figures are academic because the helicopter—Sikorsky's "flying crane"—is not yet available for commercial use. Reason: There is only one flying crane in the U.S. The rest are in Vietnam.

-H. CLARKE WELLS

Stylish boxes:





104-UNIT SITE is prepared while townhouses are built on assembly line. The builder is Glen Development Co.

These contemporary townhouses show stackup's flexibility

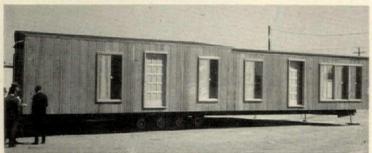


CONTEMPORARY ELEVATION for stackup townhouses in Amherst, Mass., is created by alternating facades of one basic unit. Designer: Tiffany Armstrong.

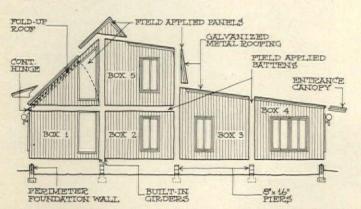


GALVANIZED METAL ROOFING covers sandwichpanel roof of plywood bonded to styrofoam.

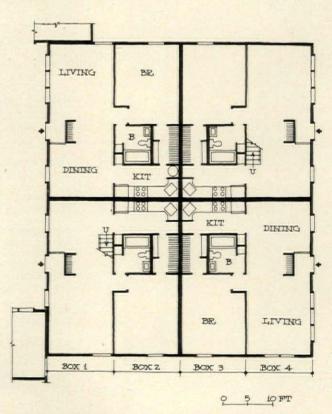
ARCHITECT'S PROTOTYPE shows horizontal seam between modules. Trim strip covers vertical seams.



56'-LONG BOX, made in a mobile-home specialty plant of Guerdon Industries, will travel 800 miles from Virginia to New England townhouse site.



FIVE-BOX BUILDING incorporates foldup roof and field-applied filler panels. Removable panels inside permit plumbing and wiring inspections.



FOUR-UNIT PLAN includes two-level townhouses with extra bedrooms. Rental schedule: \$130, \$160 and \$190 with utilities.



Hugh N. Stratford

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William MacPherson Seattle

From House & Home Moderator: Richard W. O'Neill, editor • James P. Gallagher, senior editor



With more and more homebuilders and developers venturing beyond the single-family-house market, a House & Home Round Table explores the pros and cons of . . .

OTHER ROADS TO PROFIT

The other roads are other markets of more than passing interest to single-family-house builders—garden apartments, for instance, retirement housing, nursing and convalescent homes, shopping centers, rehabilitation projects and mobile homes.

To explore these markets, House & Home brought together 32 men who know them well (*list at left*) for a two-day Round Table in Seattle. The result was a free-wheeling discussion that produced two overriding conclusions.

Conclusion No. 1: The markets explored have little in common. Each is characterized by unique opportunities on the one hand and unique problems on the other. And each demands a special expertise.

Conclusion No. 2: But the homebuilder is often peculiarly well equipped to venture into new and unfamiliar markets. First of all, the quixotic ups and downs of the single-family-house market have made him a "quick study"—a businessman with the flexibility and adaptability to cope with unexpected problems.

Also, the homebuilder has already mastered many of the skills needed in other markets. He is an old hand at buying and developing land, buying materials, selecting and scheduling subcontractors and, of course, marketing the end product.

Marketing

James R. Hyde Pittsburgh

Advertising

Prescott T. Lustig McCann-Erickson Inc. Portland, Ore.

Government

Robert Pitts
Regional Administrator, HUD
San Francisco

John Tolan Asst. Regional Administrator, HUD San Francisco

Finance

B. Walter Williams Continental Inc. Seattle

For highlights of the Round Table discussion, see the next six pages



Photos: Hugh N. Stratford



WILLIAM

ROBERT



Bayre Sparks

SPARKS

Commercial and industrial buildings can be a growth area for homebuilders

The margin of profit is smaller, but some homebuilders have made the transition successfully. Labor rules and practices are often expensive and restrictive, and the wrong subcontractor can spell the difference between profit and loss for the builder.

Richard O'Neill: Single-family homebuilders are going heavily into multifamily building and the commercial facilities that go with multifamily, like shopping centers, offices, sewage plants, community utilities and streets.

Ernest Hahn: We should examine the reason why most of us go from one field to another. We are out of housing because we can't compete on a knowledgeable basis with those who build housing exclusively. Our profit margin, in the commercial-industrial field is about 1½%. Three or 4% just doesn't exist in the commercial-industrial field in competitive bids. You have to become an efficient specialist, and you have to have sufficient volume.

You have some proprietary aspects in housing, because you can create an image or a house that is different. But if you are bidding commercial-industrial on plans and specifications, there is nothing proprietary about it besides your own efficiency and management.

We do a lot of industrial and commercial work for homebuilders. They stay out of that field because they are not equipped to do it efficiently. Most people in housing consider residual ground in a metropolitan area valuable commercial property, but mortgage financing is less and less available to the non-credit tenant. Those in the housing field had best look to multiple housing on their residual properties.

O'Neill: Is the financial community unwilling to lend for commercial development on these small commercial pieces?

Hahn: The financial community is interested in the yield on its

money. When you can get 63% % in AAA bonds you are not going to go into mortgages at 7%.

Walter Williams: The key is your credit tenants. If you don't have a good share of them in a small shopping center, then you are not going to get the financing.

A. C. Roberts: We haven't built a subdivision since '58. But we will associate with a single-family homebuilder who does not want to develop his commercial or apartment areas. We joint-venture the development of these areas. We have done medical centers, convalescent homes and shopping centers. We have kept some and sold some.

James Gallagher: Will the homebuilder join with somebody else who really knows how to do nonresidential development?

Roberts: Most single-family builders want to do only that.

Bill Dickman: The homebuilding industry has been made up heavily of speculative builders. But they often lack background in the general construction business. Now they want to diversify. When they do, they are going to learn a lot of things. Mr. Hahn speaks about the 1½% net profit for a year. That is an average figure. Some make 2½%, so there must be others who make less than 1¼%.

In homebuilding, if we were building 100 homes, we never gave a subcontractor a contract. He performed on a house-to-house basis. If he started to go bad on us, we just kicked him out and got in somebody else. But in commercial work if you give a subcontractor the job to do, you are stuck: There is no reasonable

way to get rid of him. You may hear that he is financially solid, when he is really not. The only money we have lost on jobs was through subcontractors going broke.

O'Neill: Can one company handle different building activities or should they ideally be done by different companies?

Dickman: The building industry is made up of three principal groups. One is the homebuilder/developer who builds on speculation. Another is the small operator who builds commercial and small industrial. And the third is the general contractor who builds the larger type of buildings. You can't use the same personnel on all three operations. They have to be completely separate.

We do all three, plus remodeling work. To be successful, we have distinct supervision for each group. We don't even use the same manpower.

Bayne Sparks: We act as general contractors. We build everything but heavy industrial: single-family houses, condominiums, shopping centers, club houses, motels.

Robert Schmertz: Until a year and a half ago, we were a one-family-house builder. Since then, we haven't built a single one-family house. Today we are building retirement housing.

We have also increased our commercial and industrial construction. We run the two companies from the same office. We use different superintendents but the same executive personnel.

We have equipment that we use sporadically, such as generators and big pumps, heavy trucks, light cranes, and a small backhoe; and we use our equipment much more effectively in this way.

We were forced to go into the utility business, and today we run water and sewer companies.

Gallagher: Do you build commercial for your own account or for others?

Schmertz: Until about a year ago, we bid jobs. We don't have to bid any more. We build about 50% commercial and industrial to our own account and the rest where we can negotiate. Our negotiated work is on cost plus a fixed-fee basis.

One of the big reasons to build for your own account is to generate money. Very often we are able to build a small shopping center or an industrial building without having to invest in it.

O'Neill: Does that mean that you buy your own cranes, and hire your own operating engineers?

Schmertz: We do our own concrete work, carpentry work and masonry work. Normally you buy your structural steel and subcontract it on an erected basis. We subcontract the plumbing and electrical work. Most homebuilders would prefer to subcontract, but if it is not practical, we are not afraid to hire our own men.

O'Neill: Do you have a fleet of dozers and fork lifts?

Schmertz: Yes—fork lifts and small earthmoving machines. We also have larger earthmoving equipment, and if a machine is idle, we use it in the other company. We charge it back and forth, at normal equipment rental rates, for internal bookkeeping purposes.

Henry Paparazzo: Our project, for the most part, is multiple-family dwellings. We have gone into the sewer plants and water companies. We are still learning a lot. In our housing, we are still using standard framing and carpentry crews. We use the same people and the same superintendents. If we were to do industrial we would put on different people.

Dickman: From my past experience, having worked with large construction firms, I have found that most of them get into trouble because they are "overequipmentized."











FREEBERG

Roberts: Everytime I bid a high-rise job, the man that gets it seems to be the man who owns the equipment. It just seems to eliminate us from that area.

Dickman: That could very well be, particularly if the man that owns the equipment doesn't charge it to the job, and that is what happens more often than not

Roberts: He is the one that seems to get the work.

Dickman: You may not beat everybody, but you are not going to go broke. Mark Jones was telling me about bidding commercial and always coming out second. Suddenly he found out the fellow who was low was out of business. You can't compete against that.

Al Mullally: It is labor that is pricing us out of the market. We have not been able to solve the labor problem during the last 20 or 30 or 40 years.

The average increase this year in construction labor was 35ϕ an hour, double that in all other industries. Our efficiency hasn't increased enough to offset these increases in labor costs.

O'Neill: I submit that our standard of living is a lot higher for everybody today than it was in 1911. We are kidding ourselves if we think anybody will ever drop their wage rates.

But what are the problems with the building trades and the difference between homebuilders negotiating vs. AGC negotiating?

In the East the contention of a lot of builders is that the AGC will give in to any union demand because they are on a cost plus contract for state and federal highway and bridge work.

Hahn: I have been an AGC member for 20 years. We have always felt that developers with a speculative profit in mind have always broken down negotiations in the early stages. They have the high carrying cost of their properties and interest costs that go on, and their houses are standing still.

APRIL 1968

In the last few years, there have been fewer homes under construction and the pressure for building them hasn't been as great. As a result, we feel that we are getting closer to a more effective bargaining position with the union.

Dickman: There is considerable friction between homebuilders and the AGC. The homebuilders in some areas are insisting that they represent the general contractors in negotiations.

Hahn: There is an entirely different measurement of labor for an industrial-commercial project than for a housing project. If you get a 5% increase in carpentry labor you are talking about \$30 to \$40 in an average single-family unit. When you talk about that increase in a large complex of commercial-industrial building, you are talking about \$400,000 or \$500,000 worth of direct labor.

The industrial-commercial contractor has no way of passing it on. In housing, you can reflect the increase in the cost of the house to the consumer.

O'Neill: Does an interim contract with the trades bring higher rates?

Hahn: In effect, you have eliminated the shutdown of your job, but you have also taken away all of your bargaining position with the union.

Don Freeberg: In our area, the homebuilders association negotiates with the AGC for the six basic trades. If any one of our members signs the short form, he is out of the association.

Hahn: We are doing a couple of small jobs using non-union labor side-by-side with union labor. The union is letting us do this because there isn't anybody in the hall.

Schmertz: Single-family home-building is usually non-union. We build industrially and commercially and manage to hire some of the top union men. We put

them to work on non-union jobs off season, and the union closes their eyes to it and lets them work.

John Tolan: We picketed a former president of our HBA when he signed an interim contract. We were trying to get unity with AGC, and also access to skill in bargaining. The unions have national bargaining teams and you really need some real skill to deal with them. It's expensive, and it's tough.

Dickman: Remember that many homebuilders and general contractors are marginal operators. If they go out on strike for three weeks, they go broke. There are

so many of them that you are fighting a losing battle to get a cohesive unit of homebuilders and general contractors, or even just homebuilders.

Hahn: There is something of even greater impact. We have some unions on a 36-hour week. How can you operate a construction company efficiently when your electricians, plumbers, sheet metal men and mechanical men walk off the job every Friday at noon? What do you do with the other people that are on a 40-hour week? I would really like to shut the job down on Thursday night. This is bad because we are throwing away 20% of our productivity.

Garden apartments are an obvious market for a diversifying builder

The eagerness of so many young families to choose apartment living over the detached single-family house that their parents demanded reflects a significant social change. Builders find that these families will stay on year after year if the apartments have all the amenities of houses, plus communal recreation.

O'Neill: Almost 40% of the starts this year will be in multifamily, and much of that is high-

A couple of years ago we split multifamily, because of the study we did in Dallas, into seven types of occupancy: young swingers, young sophisticates, newly marrieds, families with children, the urban-oriented, the homeoriented and the job-oriented. Are these divisions still valid?

Robert Powell: You are treading on very dangerous ground when you decide to go into a market that is specialized. We operate large apartment complexes and have decided that almost every resident who is capable of paying the rent can live compatibly. In fact, it is the way the whole world lives.

Schmertz: The main reason for building swinger apartments is that you can get \$150 rental for a \$140 apartment, and the \$10 is all profit.

Roberts: The problem in apartment building today is that taxes are soaring, construction costs are going up and rents are not increasing fast enough to keep pace.

Herman Sarkowsky: We entered the apartment building field and determined that the need was in the lower rent areas—\$100, \$150 and \$200. We went into an environmental program because we feel it takes a minimum of 175 units to support the type of amenities we want to put in. We now have about four projects under way, considerably under the average rental for this area, and we feel these will be successful.

The thing that concerns me about the apartment business is why people are living in them to begin with. Is it of a temporary nature or is it the nature of the new formations? Are these kids oriented toward the so-called lively set, in the sense that they continued

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Photos: Hugh N. Stratford





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would rather spend their dollars on a new sports car with a ski rack and spend less dollars on housing? How much effect does the fact that the GI Bill is not as all-inclusive anymore as it used to be back in 1946, '47, '48 and '49 have? No more 4% interest: Does this force people to live in apartments? Or are these people using apartments in the main as a stepping stone toward owning single-family residences?

Powell: I think that can be best answered by the type of building we build. We have been building shelter just ,like the homebuilder right after the war built shelter. In the last two years we have started to build apartments that people want to live in for a while. We are giving them more room, extras like fireplaces and other things that make it a home. If we do this, the tax structure, land cost, etc. are going to make homebuilding so expensive that they are going to stay in apartments.

Mark Jones: I wonder if possibly the breakdown isn't children vs. non-children. It seems as if the only thing that really isn't compatible with multiple dwellings are young children.

Roberts: You have to be very careful in your initial planning and development stage. You don't put a studio apartment in with a two- and three-bedroom complex, because the types of people are not going to mix well.

Hugh McDonald: I wonder, outside of for pure recreation, how much the closed circuit TV and other activities are actually used by the younger generation?

Roberts: It is more and more evident, in single-family housing, that unless you have several children, the single-family house is expensive, and you get more out of a planned development.

Mulially: We have put elevators in all our garden units. We have tennis courts, badminton courts and six or eight saunas. We will have two putting greens, three swimming pools and underground parking. This is sophisticated building and a far cry from four or five years ago.

SARKOWSKY

Powell: We have managed a great many apartments and we find that we can keep the streets cleaner, handle the refuse and handle the maintenance of the building better than the local government.

William Nolan: You are just not going to regiment everybody so that they will want to live in apartments. We are not essentially apartment dwellers by our heritage. We are going to wake up one day and have a lot of problems because we have overbuilt apartments.

Mullally: Timing is much more important than it was when we were developing single-family houses. Small buildings, in some respects, are your safest investment. A large complex is much harder to liquidate than smaller buildings scattered in various areas.

Sparks: The market itself is taking care of this overbuilding of apartments. When the mortgage bankers feel that an area is getting overbuilt in apartments, they will just stop financing them.

Freeberg: We have always built apartments, and we've found that one problem with them is cash flow—unless you sell.

Jack Robins: Why doesn't a condominium tend to offer the industry both worlds, in the sense of solving the builder's money problems and giving the family a sense of ownership that they may find attractive?

Schmertz: In New Jersey the condominium apartment is real estate. However, in New York a condominium apartment has to be considered as the sale of a security. So you have to register a prospectus under the New York State Securities Act and go through untold hell in order to sell or advertise in New York State.

Paparazzo: Connecticut's condominium law is relatively new. The general reaction is to let somebody else try it and break the ice. We are building a condominium and it did present a lot of problems. When you file a condominium, you cast in concrete everything that is going to happen in that particular increment of your development. Some states are starting to make provisions for what might be called an expanding condominium.

O'Neill: How many other states consider a condominium a security?

Sparks: None. California did, but that has been changed.

Tolan: In California we have a merger agreement. There is an agreement you sign in the initial unit which provides for a merger when the next unit is built and when 60% of them are sold. Eventually, the whole complex gets the benefit.

Schmertz: We solved this by building smaller condominiums of 40 or 50 apartments. All of the condominiums belong to a nonprofit association and turn over their rights, duties and responsibilities to the master association and merge through this format. There is no law that provides for this. We just dreamed it up and nobody attacked it.

Dickman: Does the land become a part of the structure?

Paparazzo: If you set up 10 acres of land and have a hundred

units, you can form a condominium of the land parcel with all of the units.

Dickman: How about the land under the structure?

Paparazzo: That is part of the structure. They have a fractional share of the land.

Roberts: The banks say, "If you only have 70% occupancy, who pays the taxes, insurance and maintenance?"

Gallagher: Somebody is always responsible for each unit, even if it is a mortgagee who has repossessed. The equity in each unit is your protection, plus the fact that maintenance charges are a first lien.

Dan Narodick: Is there any problem because you might have five or six financing institutions?

Sparks: No more than you would have in a single-family subdivision. We have had at least 20 or 30 of our condominiums resold and refinanced.

Schmertz: In our condominiums we have two prior liens to our first mortgage: real estate taxes and maintenance charges.

Elton Terry: Do condominiums appreciate in value?

Sparks: We have had an average appreciation of about 30%.

William MacPherson: Condominiums sell tremendously well in resort areas.

Retirement housing can be successful, but it's many markets—not just one

The first requirement of older buyers is economic security, which means that many of them prefer to pay cash to get outright ownership. Condominiums are especially attractive to retirees, because they combine the independence of fee-simple ownership with the economy and convenience of shared maintenance charges.

Schmertz: We are heavily committed to retirement housing. It's a lucrative field, and somewhat

noncompetitive in addition.

Our minimum age limit is 55 for one of the partners, but we





NARODICK









rarely sell to anybody below 63 or 65.

We are a condominium, and 95% of our purchasers pay all cash. Our price range for twobedroom apartments, which account for about 90% of our sales, is from \$17,000 to \$34,000. Maintenance costs are relatively low and buyers feel secure.

O'Neill: Are you saying that FHA's 213 program is going down the drain?

Schmertz: No, but I think that it was one of the contributing factors to slower sales in our area. In New Jersey we have never had a co-op that was successful-FHA or private.

Gallagher: The 213 is a 51/4 % mortgage, which is considerably below the market rate. Discounts on these mortgages would be substantial.

O'Neill: Wasn't there legislation to raise that rate?

Gallagher: Yes, but every time they raise it a quarter point, it will only save them two points.

Schmertz: When you build FHA multiple family, you are under the prevailing wages act. In our area, multifamily housing that is not high-rise is normally built non-union.

Sparks: We went condominium retirement and we went singlefamily-house retirement.

Roberts: What services have you offered?

Sparks: We have a tremendous community center with all of the arts and crafts, therapeutic pools, bowling greens, lawn bowling, a croquet court. We have a group of doctors who operate a medical clinic. They are also going to build a convalescent hospital and an emergency hospital arrangement, along with a convalescent home.

Roberts: Is this part of their payments? Is it a type of prepaid medicine?

Sparks: No. It is completely private practice.

Prescott Lustig: We are completing a major market study on why people move from one area to another. One of the basic motivations is the actions of friends and family. Many retirees will want to remain in the general area in which they have lived.

Sparks: Our biggest sales do come from referrals.

Lustig: Is there a large market among retirement people who do not want to be associated with old people? Is the location too far from the centers they come from? Are people, by disposition, psychologically oriented to need to be near home, their families and people?

Virgil Peterson: Are you encouraging the retirement-village concept, Bayne?

Sparks: Absolutely. We advertise as retirement housing in Rancho Bernardo. But our family housing will be advertised as executive housing in Rancho Bernardo.

Freeberg: Much of our efforts are in building facilities for the elderly. We build and operate what we call residences for the retired. The state calls them board-and-care only. This is an apartment type of construction with full dining facilities and a recreation room. It is not a nursing home. It is for the person who does not want to cook for himself but is completely ambu-

Roberts: Is this FHA?

Freeberg: No. It is sal financing. Our competition are the church organizations which are nonprofit and insured by FHA. But we believe we have an advantage being profit-oriented, because we strive harder on our programs and activities.

McPherson: Builders should specialize in their own areas and not try to expand too fast just because credit is readily available. The fact that you have been successful in one city doesn't mean that you are going to be in another.

Paparazzo: A lot of the projects we talk about are quite dissimilar. Don is dealing with one market. Bob Schmertz is dealing with a retirement market in the age-60 bracket. Our average age, right now, is 56 or 57. You not only have to be in the right locale but you have to aim for one of these particular markets.

Mobile homes have some possibilities where zoning and taxes are favorable

Development of mobile-home parks, primarily in rural and vacation areas, could have profit potential for the homebuilder-but only if he can write his own specifications for units that meet his local code and are acceptable to his market.

Robins: We have assumed that the only alternative to singlefamily housing is multifamily housing. Mobile homes are a significant alternative to multifamily housing and may provide a good deal of the answer.

Nolan: They sold 216,000 last year and they provided roughly 80% of all the new housing that sold for under \$12,000. But if you think you have zoning problems, try tackling a mobile-home park. It's brutal.

We are working with a builder to provide instant housing in the form of mobile units. We are having them manufactured in a factory, to mobile-home construction standards, then delivered to the site and stacked.

Gallagher: What does this mean to a builder?

Nolan: The builder has the expertise in land development and land planning that the mobile home builder doesn't have. Let the builder be the land developer. Through his own design group, he can develop the specs for units and then have them built by an existing mobile home facility.

Roberts: Will these be mobile?

Nolan: Portable is a better word than mobile.

Roberts: Will they be on wheels?

Nolan: They will not come in on wheels but on a flat-bed truck.

Roberts: The mobile home itself is not taxed as real estate?

Nolan: The plans are being drawn not by the mobile home manufacturer but by the builder, and are being approved by the building inspector. Instead of being built on site, the units are going to be built in a factory and then brought to the site. I think the problem that has to be solved is whether they can be brought in completed, or whether some of the building-such as the plumbing and wiring-will have to be left exposed for an on-site inspection.

Sam Grubb: We have touched on the heart of this situation. According to most codes, you cannot take the wheels out from underneath a structure without conforming to all of the requirements of a building code governing fixed structures. With archaic codes, you spend so much money fighting them, state by state, county by county, and city by city, that you lose your economy. You can build as good a home in a factory as builders are building.

O'Neill: And for how much, per square foot of living space?

Nolan: For about seven or seven and a half dollars.

continued



Photos: Hugh N. Stratford



GRUBI



HYDE





O'Neill: Any builder, building in big quantities, can build for less than seven dollars a square foot. That isn't where the cost is.

The magic in a mobile home, from a construction point of view, is zero. But from a financing point of view, you can buy it and sell it in ten minutes. There is a lot of magic in that.

Schmertz: There is very, very little cost differential, using substitute materials. I have built in towns without building codes and plumbing codes, and there is almost no savings as against building with a code. You can't build a structure too cheap or you will have problems with it, yourself.

The real problem is zoning. I build trailer parks, but I only know one municipality that will let us build them. No municipality within 60 miles of New York will let us build low-cost, one-family houses. No municipality in our general area will let us build garden apartments the way we want them built. Most municipalities today require up to 85% one-bedroom apartments, to get rid of the school problem.

If the local municipality wasn't overburdened by the cost of carrying its own schools, it wouldn't object to low-cost housing and wouldn't object to trailers.

Grubb: The only reason the value of a trailer is zero is because you have to put it in a trailer park, under existing codes. If the engineering techniques and the reduction in weight were practiced in the building of homes or apartments, the cost of housing could be substantially reduced.

Terry: Most of our sales are to rural families. We did 200 houses last year, built completely in the factory and then moved to the owner's foundation. We were successful because we were manufacturing them in a fairly low-cost labor market and moving them to what would be a high-cost labor market.

Peter Gold: For the purpose of financing and taxing, is this

considered to be a permanent structure or a mobile home?

Nolan: It would depend on where it winds up. In Tahoe [California] they are not selling the ground to the people; they are renting the sites. I assume that the land owner is paying the real estate taxes. But in most cases it becomes permanent housing. You own the piece of ground and this is attached to your ground, and the real estate taxes would be collected as an improvement to your site.

Joseph Martineau: This year's session of the Washington State Legislature directed the Department of Labor and Industries to establish codes—plumbing, electrical and heating—for all trailers or mobile homes manufactured in the state or brought into it. They set standards in the tax law, which established by length and width whether this was a vacation trailer or a mobile home.

The law also provides that a percentage of the tax collected on those with wheels and hitch must go to the school districts.

Narodick: About 20 years ago we divided the house into three portions and finished it completely inside. The plumbing and electrical wiring and everything was done in the factory. We still found that we couldn't compete.

O'Neill: There are two advantages: 1) If you don't have any skilled labor in the area that you are going into, you don't have to worry about it; 2) your cost estimating is greatly simplified.

Narodick: Can this thing come into an urban area, or is it primarily for vacation spots?

O'Neill: Because of codes and taxation, it is primarily vacation.

Nolan: One of the advantages to this particular system is that you are now in a position to control your costs. You don't have a lot of people on your payroll and a lot of subs to supervise.

Terry: There are two other ad-

vantages: Where there is a short building season, you can build these units in the factory; then, as soon as the roads are good, you dash in and set them up. The other is—as opposed to conventional building—the factory carries the construction money.

Gold: Do you encounter any problems as far as the unions are concerned?

Terry: We haven't, because our plants are union.

Powell: The mobile home may be the answer for the low-income group.

O'Neill: When you talk about the low-income family, you are talking about a blue collar worker who averages \$137 a week. You have to talk about the price of housing, and in that price is interest, amortization, realty taxes, utilities and maintenance. It is not going to be any cheaper for him to live in a good mobile home in a good mobile home park.

Powell: The economic life and the obsolescence are about the same in a mobile home. They are not, in a home. Our homes are built to last forever but may be obsolete in ten to 12 years. You can drag a mobile home away and junk it.

O'Neill: The economic life of a house depends upon the family unit, not the structure. Any structure will deteriorate if the people living in it let it deteriorate.

James Hyde: I think it is the method of distribution and the method of marketing. For a fellow who needs housing, a trailer is fairly convenient. It works out better in rural areas than in metropolitan areas.

Freeberg: Isn't the cost of living in a mobile home high because of bad financing?

Williams: You can get a 12year loan on a house trailer. But you have a smaller loan and the overhead is out of proportion to what you are collecting.

Rehabilitation will interest builders when assembling sites is made easier

Without the right to condemn property, the would-be rehabber is helpless to control his costs. Each successful rebuilding only raises the price of all adjacent property, and when you include the kind of facilities that even poor families want, the cost of the housing is beyond their ability to pay for it.

O'Neill: There is a difference of opinion as to whether rehabilitation buys time and/or buys economy.

In New York City that instant rehab only bought time. If they counted all of the costs of supervision and planning and everything else, it would be just as cheap to build a brand-new unit.

Tolan: With the rehab grants we have, we can do something. We can get at the foundation and the roof; we do the exterior and the plumbing, but find we are still leaving the old clawfooted bathtub. And today, if you don't give a wife a good

kitchen, you haven't done anything. So it's really an extra 20% that changes rehab so it is not a makeshift job. Then you wind up losing this low-income family.

Robert Pitts: We haven't really gotten off the ground, in terms of the kind of variety of interests that we need, to get into this sort of thing.

To be perfectly frank with you, the experience that we have had, with respect to clearance, has tended to drive some elements of the housing industry away from this total approach. We can't afford to run away because if the job is going to be











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done, it's going to be done by this industry.

Tolan: We have to develop people who know how to manage these properties. Redevelopment agencies are becoming some of the biggest landlords in the country.

Williams: Will the units being demolished be replaced mostly by housing, and will it be housing of a similar price pattern?

Tolan: We started construction on some commercial land. The Fleischacker interests in San Francisco have come in, and they are the not-for-profit sponsor of a Section 221d3. This will be 2,200 units of new construction, in a low- to moderate-incomefamily program.

The ownership will be by non-profit sponsors. There are about 200 units of public housing that will be scattered within the project. But there is no plan for any volume construction of low-rent public housing. But sites selected elsewhere in the city will provide a place for families relocated out of here whose income is zero income—or just enough to get entry into public housing.

Williams: One problem is a question of ownership—whether it is going to be private ownership or nonprofit groups or government. Private ownership is concerned about competing with groups which are subsidized.

Lustig: It becomes obvious that there are two ways in which the rehab job is going to be done. One, the government is going to provide the money, decide what is going to be done, and use the industry as employees to execute it.

The other way it is going to be done is as a private enterprise project. Here, we need a package that is easily understandable to those in the industry who might want to get into this thing. I think it involves avoiding the strange language that grows up around government, and talking to builders in terms which they understand.

Sarkowsky: I share Pete's enthusiasm about the language barrier, when it comes to government projects. Another point to recognize: What do you mean by a 10% profit, 10% compared to what?

Ten percent on a project with a three-month planning period is one thing. But 10% on a project that has, perhaps, an 18-month planning period, plus the aggravation of working with people who aren't fully enthused, is an entirely different thing.

Pitts: Many things have to be changed within the whole concept of government. But at the same time, let's see if we can get a joint approach to this so we reach a point where we can get the job done.

Dick Loynd: Government generally doesn't understand the risk factor vs. the profit factor. The point is, in business economics, you have some losers and some winners, and some of the winners have got to be good ones. This is the problem, as far as dealing with a government program is concerned.

Gallagher: The private developer cannot assemble enough ground to work efficiently. If there are government tools that provide him with enough ground and enough units so he can work efficiently, and if government will write the ground rules so he can understand them, he can tell you immediately whether or not he can achieve the objective.

James Turnbull: In November the American Plywood Assn., in conjunction with some other associations in the wood-products field, decided it was time to learn about the problems and the potential of rehabilitation.

We decided that we were going to try to test out the feasability of existing government programs, in terms of structures representative of the slums of cities all the way across the U.S.

We wound up selecting two city blocks in the Hough area of Cleveland. About 50% of the structures were large, wood single-family dwellings. About 40% of the remainder were two-story, masonry-veneer row units; and about 10% were three-story, six-unit, masonry structures.

A church group had organized a nonprofit foundation to attempt to begin rehabilitating the area and had, in fact, started the rehabilitation of one of the six-unit apartment buildings.

Our acquisition costs ran from \$1,500 to \$1,800 a unit more than we expected. We bought one single-family house for \$4,200, and were then asked \$10,000 for an adjacent vacant lot.

After completing a very exhaustive and detailed study, we ended up with a net figure that came out about \$3,600 per unit above the maximum mortgage available. Also, it was approximately \$3,600 above the cost of complete demolition and new construction on the same site.

We began to peel off some of the amenities, but it was still uneconomic. We feel that the key to rehabilitation of large numbers of units or neighborhoods must be a new and better method of acquiring the properties and dealing them out to private industry.

Gallagher: Hough isn't any different from any other major metropolitan area in the country. Acquisition of land would be just as hard in any other city. It is almost a rule of thumb: "Don't study any area that you don't own. If you own it, study it. If you don't own it, forget it."

Sarkowsky: Could you have used condemnation proceedings?

Turnbull: No. The only device to put some of the structures on the market was rigid code enforcement. Cleveland promised to do that but we saw little visible evidence.

O'Neill: We are going to have to have entirely new programs in HUD. If we had some way of getting the land at reasonable cost, say, in Harlem, and wanted to rehabilitate Harlem, you would have to remove one-third of the households. What do you do with

these people? Any program would have to envision new construction on a public site, if you are going to do that kind of a job.

Dickman: Suppose you had a trailer area that you could put people in for a limited period of time?

O'Neill: It would be good for a smaller town. When you talk about a major city, you are talking about maybe thousands of households within a few blocks of area.

Dickman: Rehab labor is twice what it would be normally. In a \$10,000 unit, maybe the labor is \$800. You are talking about 8% of the cost.

Turnbull: Not in rehabs. There, 40% is the minimum.

Hahn: By the time you start stripping it down and start working around the plumbing, you might find you would have been better off tearing it down.

Dickman: Time becomes important because time is very expensive.

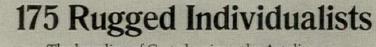
Powell: Have there been any studies made on the possibility of using property-tax incentives to get the present landlords to improve the property?

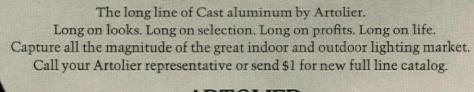
O'Neill: Do you mean abating the tax to get the landlord to improve the property?

Powell: Could you continue a moratorium on the taxes if more money was put back into the property?

Turnbull: There is one bill in Congress, now, for a \$750 tax exemption to stimulate home improvement, but you can't call that a rehabilitation home-improvement bill, because of the size of the figure.

Powell: In San Francisco, for example, in the Western Addition, encouraging rehabilitation would have done more than tearing it down.





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now available on many Wall Ovens, Compact 30 Ranges, Refrigerators, and Undercounter Dishwashers

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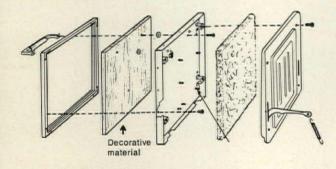
Today's prospects don't want the pea-in-a-pod look in *their* homes or apartments. They want to express their own tastes. Now Frigidaire makes it easy for you to appeal to these individualists—and sell them—with Designer Doors, special door-frame kits of smooth, stylish metal. The kits accept almost any material up to $\frac{3}{16}$ " thick, to create truly individual appliance fronts.

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The smart look in kitchens today is the blend-in look—and appliances are part of it, merging and blending with floors and walls and cabinetry. With Designer Doors, Frigidaire appliances can match anything from the wallpaper in the breakfast nook to the wood grain of the cabinets. There's almost no limit to the decor possibilities.

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Here's a diagram of the Frigidaire Wall Oven or Compact 30 Door with Designer Kit. The customer supplies the decorative material of her choice. The customized front is assembled on the spot, using the Designer Door Kit, this easily:



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Innovate with Frigidaire Appliances! Designer Door Kits accept almost any material up to $\frac{3}{16}$ " thick. Shown—Designer Door on Compact 30 Range Model RB-533N.





Frigidaire bothers to build in more help



Paper a room in your model home and they'll look at the view.



Panel it with Weldwood and you give them something to look at.

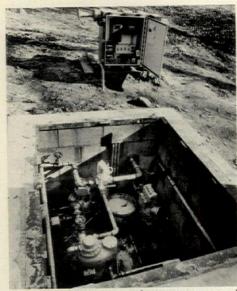
Did you ever see anyone pass up a wall that's paneled with Weldwood? You bet you didn't.

They'll stand about 18 inches from it. Staring.

thinking how great their furniture would look with female half of your hot prospect will probably end can tell them that Weldwood® will last as long as scheme. That's ok. It'll give you something to think a damp cloth or a liquid furniture polish.

And all the time it's just standing there selling itself. Looking so rich it helps you sell the whole house.

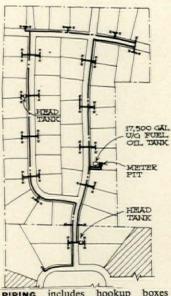
You don't think Weldwood can do that? All Then they'll reach out and touch it. They're right. Slosh on some paint or paper instead. The all that real wood grain as a background. Then you up telling you what's wrong with your color the house. That all they'll have to do is wipe it with about on the way to your building supply dealer. The one who sells Weldwood. U.S. Plywood



warning horn, top, and meters are exposed, valves and twin pumps, foreground, are buried.



SENTINEL VALVE is coupled with slow-flow meter and filter on each furnace fed by central fuel-oil supply lines.



PIPING includes hookup boxes (shown as X's) inside each lot.

Central fuel-oil system protects homeowners against breakdowns

Three kinds of safeguards—alternating pumps, check valves and extra storage tanks—promise to take all the headaches out of central oil distribution for Milwaukee builder Earl Millikin.

First, the furnaces in his 49-house subdivision (plan, above) are fueled by continuously circulated oil from a 17,500-gallon tank and two ¼-hp pumps. An automatic timer switches power from one pump to the other every 12 hours. And if either pump fails, the other starts running automatically and an alarm horn signals residents to call a service man.

Second, two head tanks have been installed at high points along the pipeline to provide a temporary fuel supply in case both pumps fail at once.

Third, individual sentinel valves will shut off furnaces in case of a serious malfunction in the system.

Every component is buried except a cen-

tral control box and the warning horn. Main distribution lines—11/4" iron pipe wrapped in plasticizer and paper—are hooked to stop boxes just inside lot lines and Millikin connects his furnaces to these with copper tubing.

The system was designed by American Oil Co. and installed by Aetna Tank and Pump of Chicago for American's Standard Oil division. The oil company will run it under a ten-year lease with Millikin.



BURIED DUCTWORK includes a total return-air system that courses through an electrostatic air



filter in buried plenum (above). Polyethylene wrapping keeps out water and insects.



HOT-WATER LOOP for radiant heating can be diverted to insulated lines in warm weather.

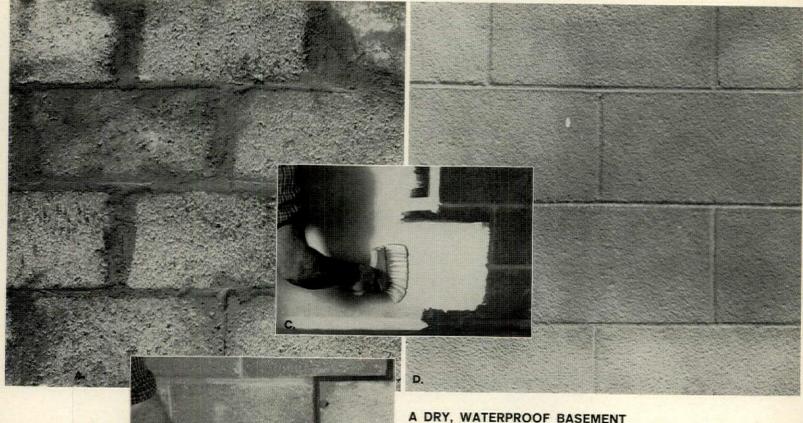
Extra under-slab work pays off in less expensive air conditioning

California builder Duncan Stewart invested 30 days of working time beneath the slab of a 2,881-sq.-ft. promotion house. Result: a buried air-handling system that requires only four tons of air conditioning, three tons less than average for his Southern California climate. The undersized equipment proved itself during model showings by keeping the house at a constant 72°, despite 100° weather and several hundred visitors a day.

Buried ductwork—including a total return-air system—is not the only reason Stewart saves on cooling costs. He also uses 4' roof overhangs, double glazing in all windows and full-thick insulation in ceilings.

Dual hot-water piping under bathroom floors is another way Stewart lightens the cooling load. The floors are radiant-heated in cold weather by non-insulated loops of copper hot-water piping (above), but in summer the hot water is diverted through insulated lines by turning a wall valve. Stewart's loops, terminating in a small pump operated by a sensor, keep instant hot water at the taps. The setup costs an extra \$175 for 2½ baths.

Stewart speeds up pipe-wrapping work by using a zipper-fastened polyvinyl sleeve lined with polyurethane foam. His buried air ducts are wrapped with six-mil. polyethylene.



A. Defective areas in walls should be cut out and all loose mortar removed. B. Dampen first, then force WATERPLUG into defective areas holding in place for 3 minutes. Prime coat patched areas immediately with THOROSEAL. C. Apply THOROSEAL to lower part of walls. D. Then brush-on a base and a finish coat of THOROSEAL to entire wall surfaces and the basement is attractively finished, completely waterproofed and protected for the lifetime of the building.

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A RICHLY TEXTURED, FIRM, FINISHED CEILING

Now, a cement-base, aggregate-type, spray coating to highlight and decorate masonry and concrete ceilings. THORO-TEX is lightweight, contains a built-in bonding agent, antibounce ingredient and eliminates stain-throughs, quick dry outs; produces a hard, wear and water resistant finish that can be readily painted.



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Here, THOROSEAL PLASTER MIX, applied by trowel and float method, provides a desirable wall finish that's waterproof, easy to maintain, wearproof, economical to apply-no rubbing needed! Can be used on interior or exterior, above or below grade. Use Acryl 60 (1 part to 3 parts mixing water) for a super strong bond.

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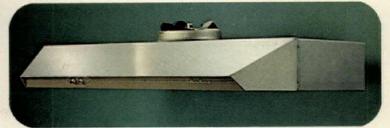








above: Moderate-priced 2-speed Cabinet-Sav'R left: Hi-Flow ductless model with rechargeable filter system below: Low cost vertical discharge model



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

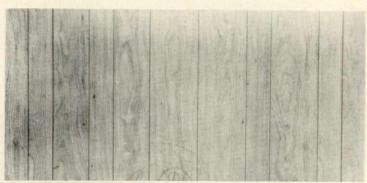
Interiors



Spiral stairways: They come in steel and wood

You can choose between the red-oak model shown at left, and its steel alternative (far left) with clear oak treads, railing and platform. Both are easy to install: The alloak model from Stair-Pak comes completely assembled (at \$650); and its companion—from American Panel Products—is shipped in sub-assembled components (at \$195).

Both clockwise and counterclockwise stairways are available. Finished openings: 4'3" or 5'3" in diameter for the wood model; from 3'6" to 5' for the steel. For information from Stair-Pak, Union, N.J., Circle 285 on Reader Service card. For information from American Panel Products, Ypsilanti, Mich., Circle 286.



Low-maintenance paneling, made of melamine-finished hardboard that can be wiped clean, has an embossed driftwood pattern in a bluegrey tone for use in rooms with a blue decor. Conwed, St. Paul, Minn. Circle 225 on Reader Service card



Decorative-tile inserts for kitchen and bath include a rooster (above, left), condiment containers, two leaf designs and a three-dimensional basketweave pattern (above, right) in nine colors. Wenczel Tile, Trenton, N.J. Circle 226 on Reader Service card

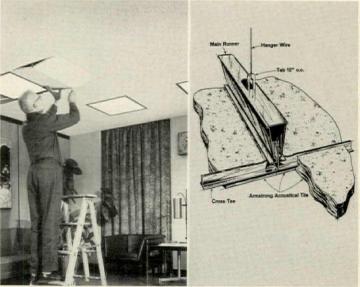


Vinyl-coated wallcovering with a pattern of vertical stripes in a choice of bold or muted color combinations is one of 25 new patterns. The collection utilizes a new printing technique. James Seeman Studios, Garden City Park, N.Y.

City Park, N.Y. Circle 227 on Reader Service card

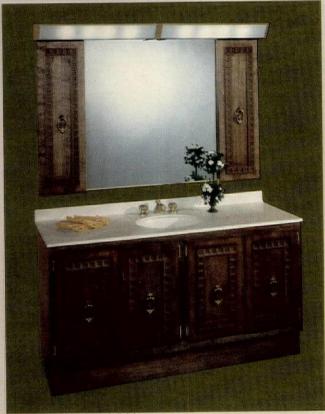


See-through shades with open-mesh construction permit air to filter through the lattice weave, but repel sun's heat and glare. Made of vinyl-coated fiberglass, they come in choice of widths up to 72", lengths to 9'. Joanna Western Mills, Chicago. Circle 228 on Reader Service card



Acoustical-tile system offers total accessibility to plenums: Workman fits hook into slot in cross tee (above, left), disengages it from main runner in single downward motion. Armstrong, Lancaster, Pa. Circle 229 on Reader Service card

Sorry. You'll have to furnish the light bulbs.



The Cordoba in Spanish oak finish



The Constellation with stainless or gold trim

Williams provides the rest. Matched sets, upper cabinets and vanity bases, styled the way a woman wants them. In seven lovely shades and rich wood finishes. Tops and bowls in coordinated colors. Mirrors and light caps—with easy-to-replace, warm light incandescent bulbs. Beautifully durable—beautifully convenient. Full length credenza-like doors for more space, easier access and a selection of optionals for customizing.

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The Williamsburg in avocado

Satin Glide

Type of firm

Kitchens



High-style refrigerator has a 116-lb. freezer and is available in antique copper or avocado—with a laminated striped panel sheathing the freezer door in white, gold and two tones of olive. Total capacity: 14.1 cu. ft. Kelvinator, Detroit. Circle 217 on Reader Service card



In-the-wall cabinet with 4½"-deep adjustable, shelves comes completely factory-assembled, requires 14"x26" wall hole. Cabinet and face of solid-flakeboard door are made of polystyrene. An optional kit permits surface mounting. Pagebar, Miami. Circle 221 on Reader Service card

Eye-level electric range comes in avocado, white and burnished copper, with brushed-chrome top and trim. The oven has a removable door to simplify cleaning, and is clock-controlled. Brown Stove Works, Cleveland, Tenn.

Circle 222 on Reader Service card



Duct-free hoods powered by two squirrel-cage blowers have 1) solid-state controls for an infinite number of speed settings, 2) an extra large (217-sq. in.) aluminum grease filter. In three widths and four finishes. Broan, Hartford, Wis.

Circle 218 on Reader Service card



Hide-away toaster—face dimensions: 11" high, 16" wide—can be built into any 4"-thick wall. Unit pulls out to toast (above) and folds flush with wall when not in use. With brushed satin chrome finish. Swanson, Owosso, Mich.

Circle 219 on Reader Service card



Matching cabinets incorporate 1) solid-oak drawer fronts and door frames, 2) dovetailed drawers with "tri-glide" suspension and 3) adjustable shelving in both wall and base units. Design features beveled-panel doors. Brammer, Davenport, Iowa. Circle 224 on Reader Service card



Undercounter dishwasher—with 16-place-setting capacity—features upper and lower spray arms, a discharge pump that liquifies and drains away soft food particles, and up to six wash cycles. In coppertone, avocado and white. Roper, Kankakee, Ill. Circle 220 on Reader Service card



Top-of-the-line range with self-cleaning lower oven now offers rotisserie at convenient eye-level height. Feature: Removable liner panels in upper oven can be cleaned below. In avocado, coppertone and white. General Electric, Louisville. *Circle 223 on Reader Service card*



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Southern Pine



America is moving out-of-doors. You can move in—to make sales that keep pace with this new trend. Pre-shrunk, pressure-treated Southern Pine is ideal for open decks, because of its exceptional strength and high resistance to wear. It keeps your customers happy long after the sale—giving you word-of-mouth advertising that brings more customers to you.

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Southern Pine offers an unexcelled blend of modern appeal and low maintenance—and your prospects know it. (Southern Pine Association advertising reaches them in the most popular national home-building magazines.)

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Please send your free full-color "Idea Book for Outdoor Living", giving varied ideas for Decks, Patios and Fences, with working details and technical data.

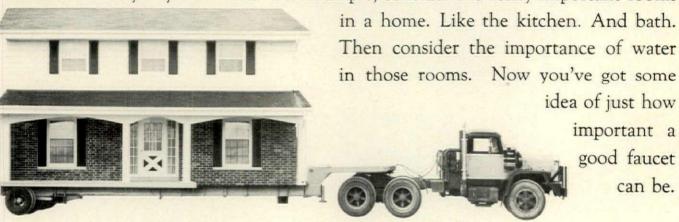
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There are easier ways to move a house

Maybe you've never considered faucets a very important sales feature of your homes. But maybe you should. For example, consider the really important rooms

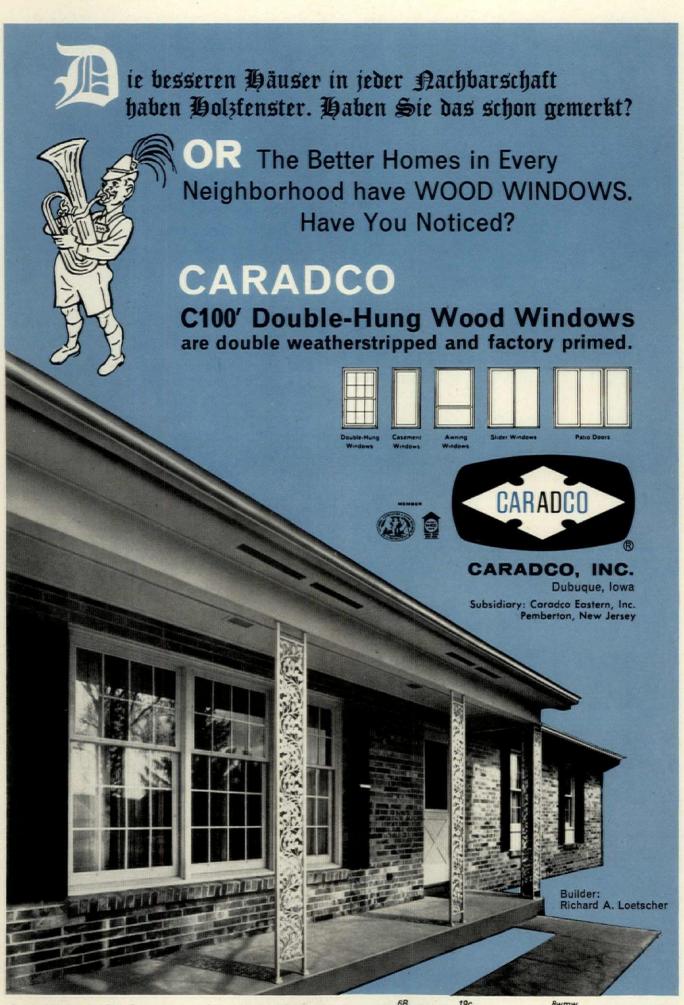


here's one.

What's so special about Cole single-control faucets? Well, to begin with, we took special pains to design our faucets so they'll never leak or wear out. Ever. You see, Cole faucets have no washers. No gaskets. No springs. Or any of the other parts that fail or need adjustment in ordinary single-control faucets. We find this arrangement makes things a lot easier on us. And you.

Finally, we also took special pains to design our faucets so that their contemporary and tasteful beauty will be an immeasurable asset to any kitchen or bath. Now then. Want some help in moving your homes? Just give us a call. Or write for descriptive literature. Cole. The single-control faucet that's designed to last a lifetime.





Caradco Windows and Patio Door products are further detailed in Sweets Light Construction $\frac{6B}{Ca}$. Arch. File $\frac{19c}{Ca}$ and Canadian file $\frac{8wmw}{Car}$ or write direct to factory

Lighting

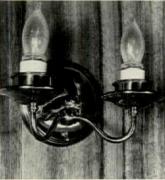


Colonial-style post lantern is finished in hand-rubbed oxidized brass, has panes of textured amber glass fitted into diagonal cross straps. Lantern dimensions: 19" high, 12%" wide. Emerson Electric, St. Louis. Circle 275 on Reader Service card



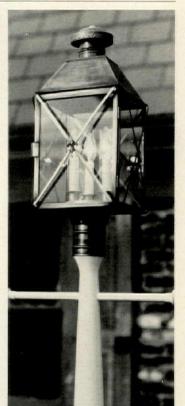
Fluorescent fixture—a 4', two-lamp unit with woodgrained end caps—is designed for use with either a suspended or tiled ceiling. Further, it has UL approval for installation under combustible wood-fiber ceilings. Armstrong, Lancaster, Pa.

Circle 230 on Reader Service card



Decorative sconce—a medium-base, three-watt flicker lamp—has a twist-top bulb with an amber beaded-glass ceramic coating that obscures the flicker source: a glow discharge plate. Sylvania Electric Products, New York City.

Circle 231 on Reader Service card



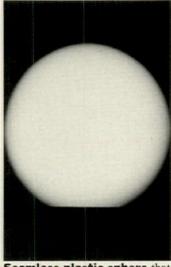
High-style post lantern—old Country French style—holds three lamps enclosed within glass panels outlined by slim metal strips. The lantern is offered in a choice of either antique copper or solid brass. Progress, Philadelphia, Pa.

Circle 232 on Reader Service card



Wrought-iron chandelier in Mediterranean style holds five hurricane lamps. The chandelier is 25" in diameter, 19" high and can be hung as low as 40" from the ceiling. Wrought iron is delicately scrolled. Del-Val, Willow Grove, Pa.

Circle 233 on Reader Service card



Seamless plastic sphere that combines globe, canopy and holder in a single unit, weighs one-third as much as comparable glass globes and is said to offer equal or better light transmission. In eight diameters from 8" to 24". Plastics, St. Paul, Minn. Circle 234 on Reader Service card



Eight-light chandelier—in choice of distressed fruitwood or satinfinished-black wood—has candelabra-base sockets. Tubing is solid brass. Also available: five- and six-light models. EJs Lighting Corp., Los Angeles. Circle 276 on Reader Service card



Malta Casement Windows add design appeal to homes of every type

There's something special about a Malta Casement Window—



Malta Vent-Vue Windows combine convenience and beauty

Malta Wood Rolling Patio Doors complement fine home design



about the dignity of its tall, rectangular proportions when used in formal dining room, living room or master bedroom. And in the same home, cheery informality is easily achieved with colorful draping for family rooms, kitchens or children's bedrooms. It's a versatile window unit for every taste-for every architectural design. In bow or other groupings, it's great.

Malta quality is evident. Malta Casement Windows are made of carefully selected Ponderosa Pine, fully weatherstripped and expertly milled. Strong extension hinges allow windows to swing wide without sagging. Goldtone roto-operators open windows without effort. Windows can be cleaned from inside - both sides. Insulating glass, white vinyl boot glazed, is a popular quality option. All windows are exterior primed at the factory.

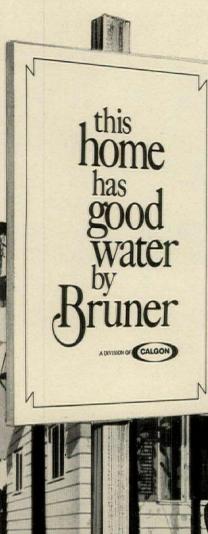
The Malta full line includes casement, vent, double hung, glide, bow, picture groupings, basement windows and the new wood rolling patio door. Send for complete catalog data. It's the guaranteed quality line. Snap-in wood grids, in rectangular or diamond patterns, are provided for distinctive home styling.



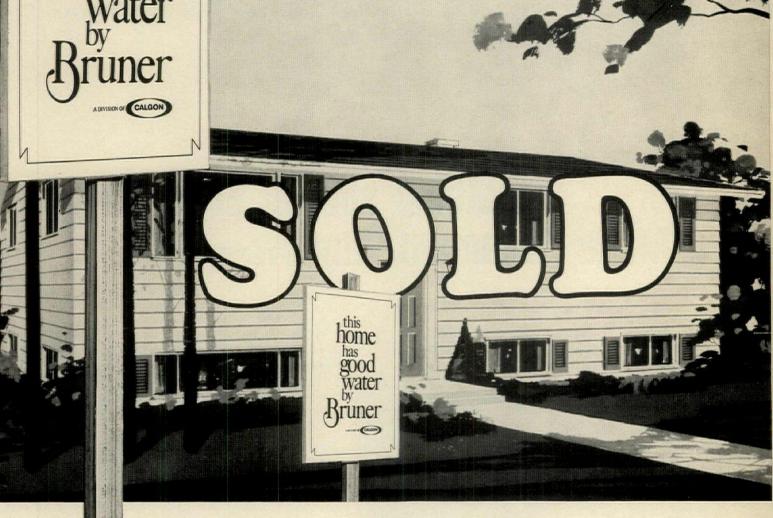
MALTA MANUFACTURING COMPANY

261 Johnstown Road Gahanna (Columbus), Ohio 43020 Circle 115 on Reader Service card

132M1



This sign of good water makes every new home SEE-WORTHY



Offer something special: The exciting difference of soft, clean, good water by Bruner. This is the sign that stops them, signs them up, and moves them in faster! With today's hottest home selling feature, Bruner helps you cash in on peoples' growing interest in the quality of water they live with.

Whether your site is on city or well water, Bruner has the units to guarantee good water. Water free of the unpleasant tastes and odors of chlorine, iron, rust, dirt, turbidity and hardness. Water that tastes, looks, cooks, launders and bathes better. Water that saves money!

These are selling features you can talk aboutin the bath, in the kitchen, in the laundry. Now you're giving something home buyers want and know they need . . . good water! One thing more.

Bruner sharpens your competitive edge with a complete Good Water Promotional Package, including many publicity and sales aids. Get the full story. Call your Bruner Representative or contact us direct, today.

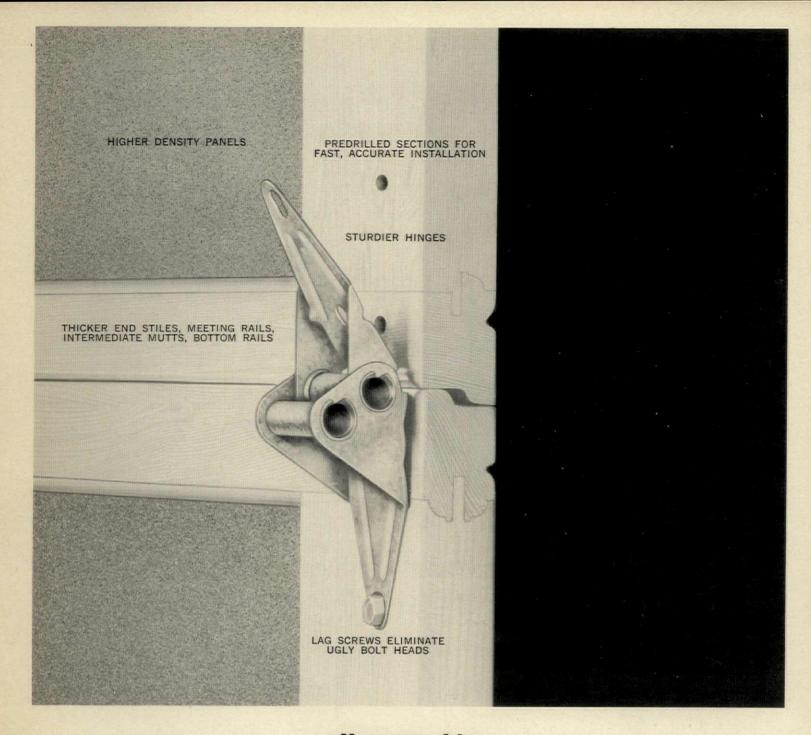
IMPORTANT. If you are a leading builder of multiple units (homes or apartments), you may be qualified for the added selling power of the unique Good Water Community program. Contact Jim Bruner, Vice President of Sales, in Milwaukee, for details.



BRUNER CORPORATION

4767 North 32nd Street Milwaukee, Wis. 53209

10626 East Rush Street South El Monte, Cal. 91733



Upsmanship. New Raynor residential garage door ups quality, without upping price.

Thicker end stiles, meeting rails, intermediate mutts and bottom rails. Longer, sturdier hinges. Lag screws for hinges eliminate ugly surface appearance caused by carriage bolt heads. New, improved lock mechanism. Door sections predrilled at factory to assure accurate, quick installation. Improved higher-density panels made especially for Raynor. Available in Colonial and Ranch styling. All at no increase in price!

It's new, rugged and has the other quality features expected of Raynor, including custom-wound, load-tested springs; heavy-duty hardware; data film parts registration to guarantee immediate, accurate replacement. For quality and economy that endures, for non-stop, trouble-free performance, you can depend on this new residential garage door. Send for literature.

Raynor Manufacturing Company, Dixon, Illinois.







IT'S REALLY A IT'S PERFECT. LOVELY LOOKING HOME.

IF YOU DON'T GO NEAR THE WINDOWS.



TO GET INSULATING

YOU FORGOT OUR BUILDER NEVER MENTIONED IT. SURE I CAN'T GLASS? TAKE YOUR COAT?

I'M TRYING JUSTTHROW ANOTHER LOG ON. TO FORGET. BY THE WAY, WHO WAS YOUR BUILDER?



When people talk to people about a home you built, they're building your reputation. Or demolishing it.

So, make sure they say all the right things. With no if's or but's.

Sell them the advantages of windows with insulating glass. Like PPG's Twindow® Insulating Glass. Twindow eliminates cold drafts. Lowers fuel bills.

Reduces fogging and frosting. Keeps the house warmer in winter, cooler in summer. Ends fussing with storm windows (putting up, taking down, washing, storing). Talk to your wood window dealer or manufacturer about insulating glass.

It's one of the little things that turn a customer into a salesman. PPG INDUSTRIES, One Gateway Center, Pittsburgh, Pa. 15222.



50 homes sold in 9 weeks at Knollwood!

Whirlpool appliances in every kitchen.



Donald J. Giordan

"We opened this new subdivision on Staten Island late in September and by Thanksgiving we had more than 50 sales," says Donald J. Giordan, president of Knollwood Properties, Inc.

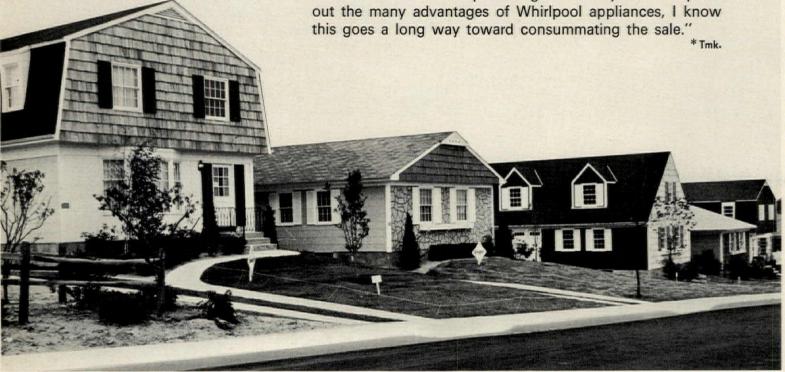
A major attraction at Knollwood is the Whirlpool appliances in every kitchen. Each house has a built-in oven and surface unit... most have a dishwasher, refrigerator and laundry equipment. The Jack-Vac*, Whirl-

pool's central vacuum system, is also available.

"Without a doubt, the choice of Whirlpool appliances is contributing strongly to our excellent sales record at Knollwood," says Mr. Giordan.

"Actually, I chose them because of so many features that appeal from a builder's standpoint. For example, the simplified dishwasher connections, the one-stop service idea and the wide selection of product."

"After our opening, I was gratified to find that my salesmen benefit, too. They report that prospective buyers are quite impressed at getting Whirlpool instead of other brands usually found in the Knollwood price range. When my salesmen point out the many advantages of Whirlpool appliances, I know this goes a long way toward consummating the sale."



These attractive Knollwood models at Staten Island, N. Y. sell from \$23,750 up.



Whirlpool's Full-Line Concept provides a complete line of appliances . . . all design and color coordinated . . . all from one handy source. You place one order . . . deal with one man . . . get

undivided responsibility. Whirlpool also offers builder management services through the consulting firm of W. R. Smolkin and Associates, Inc. Ask your Whirlpool distributor.



America's best builders work wonders this easy way.





ORNAMENTAL IRON

. . . adds eye-appeal and individuality to your homes and apartments.

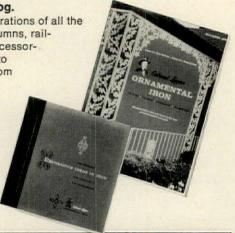
America's best builders use Colonel Logan Ornamental Iron to add distinction to apartments and homes in every price range. Standard sizes keep costs low.

FREE 16-page catalog.

Jam-packed with illustrations of all the wanted designs in columns, railings and decorator accessories. All standard-size to save money over custom ironwork and insure fast delivery.

FREE "Decorative Ideas in Iron" book.

Profusely illustrated, new book shows how little touches of iron create salessparking magic indoors and out.



Both books FREE! Mail this coupon today!

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Western District: 1426 S. Santa Fe Ave., Los Angeles, Calif. 90021

NEW PRODUCTS

start on p. 112

Baths



Bathroom grouping combines vanity—in widths from 15" to 60"—with recessed upper cabinets (if preferred, vanity can be combined with full-width lighted mirror). Available: a variety of internal space arrangements. Williams, Elkhart, Ind. Circle 200 on Reader Service card



Decorative towel ring—available in four finishes, plus standard chrome—is one item in a line that includes a soap dish, towel bars and tissue holder. Design keeps ring from hitting the wall when towel is removed. Del Mar, Los Angeles.

Circle 204 on Reader Service card



Low-silhouette toilet—tank is only 28" high—fits under a vanity countertop. Unit comes in regular-and elongated-bowl models, in seven colors: driftwood, tan, pink, wedgewood, green, daffodil and avocado. Gerber Plumbing Fixtures, Chicago.

Circle 205 on Reader Service card



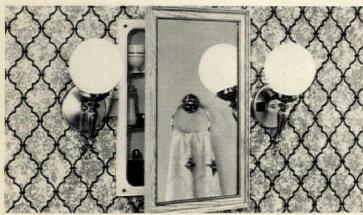
Slip-resistant bathtub-its surface incorporates 1"-dia. circles permanently fused to the castiron surface-is said to be four times safer than conventional models. In white, or choice of colors. American Standard, New York City.

Circle 201 on Reader Service card



Compact prefab sauna 42"x75"-is shipped completely assembled, ready to be plugged into any 110 v. outlet. The sauna incorporates a wood-veneer interior, corner-mounted heater and bench. Normandy Products, Pitts-

Circle 202 on Reader Service card



icture-frame cabinet with one-piece recessed steel body is flanked by antique-brass torch fixtures. Overall size: 291/2" wide, 22" high. Choice of finishes: ivory or walnut with gold trim, antique gold. Monarch, Elk Grove Village, Ill. Circle 203 on Reader Service card



Three-piece bathroom ensemble consists of two cabinets flanking a wall mirror that comes in three widths up to 36". Full-louvered cabinet doors are delivered unattached-for on-site finishing. Grote, Madison, Ind. Circle 206 on Reader Service card

New products continued on p. 136

SAVE MONEY

WITH 3 FREE-STANDING **CONDON-KING FIREPLACES FOR HOMES & APARTMENTS**

Fireplace costs are substantially reduced with the installation of any of the three popular Condon-King fireplaces. The units can be completely in place in approximately four hours without special skills or structural support. The wood-burning fireplaces are approved by BOCA, ICBO and Southern Building Code . . . and the gas-fired FireHOOD is A.G.A. approved. All units are stocked nationally to meet your building schedules.

LESS INITIAL COST **▲ EASIER INSTALLATION** ▲ FASTER OCCUPANCY ▲ SATISFIED CUSTOMERS



One of the newest and most appealing free-standing fireplaces for modern living. Made from textured space-age ceramic. Aztec's graceful geometric styling offers a fresh new look in contemporary decor. Available in 5 stunning new colors. Extra sales dollars for you and decorative appeal to your customers.



FIREHOOD

Recognized and accepted as the original conical free-standing fireplace, FireHOOD is preferred for all types of domestic dwellings. FireHOOD actually helps sell prospects. No wasted space; it can be installed even in front of windows without obscuring the view. Available in both gasfired and wood-burning models in 9 House & Garden decorator colors.



MANCHESTER-

PIERCE The long, low, distinctive lines of this modern fireplace will add a new dimension of width to any room. It may be installed as a freestanding unit or wall-mounted with hidden back flue. Available in matte black and a choice of stunning colors.

Write for FREE COLOR BROCHURE ...



CONDON - KING CO., INC. Dept. HH4, 5611-208th Avenue S.W., Lynnwood, Washington 98036

In Canada: FireHOOD Manufacturers, Ltd. 266 East Esplanade, North Vancouver 9, B.C.











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DIVISION OF MASCO CORPORATION

Circle 96 on Reader Service Card

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WITHOUT MOVING THEM OUT OF THEIR PRICE RANGE!



Thai-Teak (Botanical name, Tectona Grandis; imported from Thailand) is lustrous and luxurious . . . easy to maintain with just an occasional waxing . . . withstands the hardest wear . . . resists termites, rot, decay . . . is available at a cost that compares with mediumpriced carpet and vinyl . . . and comes in 85 different patterns.

See our insert in Sweet's Light Construction Catalog. For complete details, attach coupon below to your firm's letterhead.





BANGKOK INDUSTRIES, INC. 1545 W. Passyunk Ave., Phila., Pa. 191

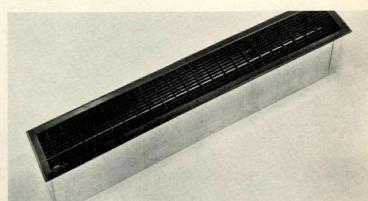
- Please send details on Thai-Teak Custom Flooring.
- Please have your representative call on me.

ADDRESS.

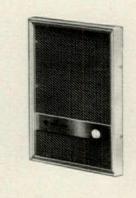
Heating, cooling, and ventilating



Room air conditioner has a standard walnut-grained vinyl-on-steel front panel, but can accommodate optional decorator panels. Choice: carved oak (above) or antique gold-and-white Provincial pattern (not shown). Frigidaire, Dayton, Ohio. Circle 260 on Reader Service card



Electric baseboard heater incorporates a heating-element suspension system that eliminates expansion noises, and a new front grille. Seven sizes in two density ranges: 250 or 187 watts per lineal ft. Seaboard, Newark, N.J. Circle 264 on Reader Service card



Wall-mounted heater bathrooms has satin-aluminum finish that blends with most decorating schemes and a textured grill. The fan-forced unit incorporates automatic temperature control. Emerson Electric, St. Louis.

Circle 265 on Reader Service card



Flexible metal duct, for use in air-handling applications where a non-rigid connection is desirable, can easily be handled by one man. It is formed from corrugated foil strips and comes in eight diameters from 4" to 12". Dayco, Dayton, Ohio.

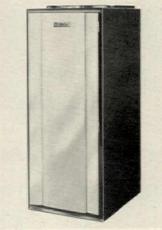
Circle 277 on Reader Service card





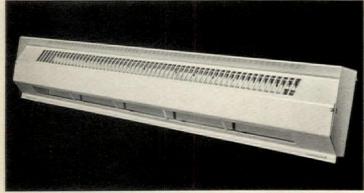
Compact vane-axial fan of cast aluminum is one of a 12-model line with capacities of 60 cfm to 1,220 cfm, takes up 85% less space than equivalent centrifugal units. Top photo shows fan installed in duct. Joy Mfg., Pittsburgh.

Circle 261 on Reader Service card



Upflow furnace comes in five models, ranging from 82,500 Btu input to 192,500 Btu input. Sound transmission is minimized because blower is completely insulated with fiberglass blanket. Also: heat/cool models. Luxaire, Elyria, Ohio.

Circle 262 on Reader Service card



Self-contained drop-in heater is ideal for drafty areas in front of patios and floor-to-ceiling windows, can be recessed into wood floors or concrete slabs. Five models range in length from 35½" to 109¼". International Oil Burner, St. Louis. Circle 263 on Reader Service card



Free-standing fireplace—an air-circulating model that burns real wood and generates higher heat than masonry units—includes damper, ceiling plate and 24" of flue and stack, plus hearth. A. R. Wood Mfg., Luverne, Minn. Circle 278 on Reader Service card

New products continued on p. 138

NEW ECONOMY PRICED
MAGIVAC ER-80
PUTS BUILT-IN CLEANING
WITHIN PROFITABLE
REACH OF YOUR LOWEST
PRICED HOMES



Include MagiVac in your homes and offer buyers a cleaner, easier, healthier way to live! Now at a low price never before possible. Profitably within reach of every builder. MagiVac gives you the sales-producing *plus* of built-in cleaning with the competitive advantage of famous MagiVac quality!

Compare feature for feature. See why no other built-in system comes up to MagiVac standards of performance and dependability. MagiVac installs quickly and easily in every type of home. Power unit is located in garage, attic or utility room and two-inch tubing is routed to wall outlets from attic or under floor.

THERE'S A MAGIVAC MODEL FOR EVERY HOME AND PRICE RANGE ACCEPT NO SUBSTITUTE SPECIFY MAGIVAC BY NAME!

The MagiVac system is engineered for simple installation and years of dependable performance by the John E. Mitchell Company, manufacturer of Mark IV, the world's leading custom installed auto air conditioner; and the patented freezer-dispenser for ICEE, world's top selling frozen, carbonated soft drink.

Write today for information!

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Gentlemen: Please rush free literature, specs and price schedules for the complete MagiVac line.		
Name		
Address		
City/StateZip		

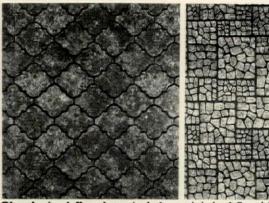
Floors



Inlaid sheet-vinyl flooring offers a random-chip design in a choice of six colors. Flooring incorporates "Armofelt" backing, and manufacturer recommends installation over suspended wood and concrete floors only. Armstrong, Lancaster, Pa. Circle 213 on Reader Service card



Resilient tweed carpeting with multi-level loop construction of Herculon is available in 12' and 15' widths. There is a choice of nine color combinations, and retail price is about \$7 a sq. yd. J. P. Stevens, New York City. Circle 214 on Reader Service card



Sheet-vinyl floorings include a mini-sized Spanish tile pattern (*left*) and a pebble-stone motif in square and rectangular blocks (*right*). The latter may be installed without cementing on suspended subfloors. Ruberoid, New York City. *Circle 215 on Reader Service card*

New literature starts on p. 142





Name_ Address

Firm.

Please rush me free details and catalog on your Alsons Hand

614 E. Edna Place, Covina, Calif. 91722

.Title

= SCHOLZ HOMES, Inc.:

Scholz Homes, Inc. is in the midst of one of the greatest growth surges in the industry. In addition to the expansion of a dominant position in the medium and luxury range single-family homes field, the Company is heavily involved in the new and challenging field of fully fabricated one-day erection sectional homes for the lower cost market, and in the construction of a multiplicity of pace-setting apartment projects - including projects for its own account, projects in participation with other builders and in "turn key" construction for investors.

All of these activities are providing exceptional opportunities for capable, ambitious men interested in growing with one of the industry leaders in the period of tremendous housing demand that lies immediately ahead . . . men qualified by experience to staff the positions of responsibility these activities are creating.

Specifically, we are looking for men with talent and experience in the following specialties:

ARCHITECTURAL DRAFTSMEN

We can use men at all experience levels, from beginners with talent to top designers. Exciting work in the exploration of new and challenging fields with the in-

dustry's design leader assures an unusual degree of aesthetic satisfaction. Top salaries, excellent environment. Location: Toledo.

PROCESS ENGINEERS

A major share of the Scholz Homes product is involved in highly customized homes for the luxury market involving substantial engineering work in determination of fabrication procedures to be followed. Men with a practical background in carpentry and house framing techniques, an analytical nature, and good at figures are ideally qualified for this interesting work. Location: Toledo.

DISTRICT SALES MANAGERS

The key man in the Scholz operation and on whom future Company growth depends — and for this reason the most lucrative. Best qualified: ex-builder with strong sales ability. Develops sale of the product with the builder and initiates sales with custom buyers.

Needs all around building experience, knowledge of costs, able to handle modification for custom buyers. Salary. Expenses. High income volume incentive. Location — right where you are living.

PROJECT MANAGERS and SUPERINTENDENTS

Scholz Homes has seventy million dollars worth of apartment construction under commitment for the next five years in various cities in the east and midwest.

We need men with solid experience on large scale garden apartment or single-family home projects. You must be a pusher and your references must be good.

Just in case you have read this far, and are a builder who just wants to build a product that is turning the highest profit margins in the industry, why don't you send in the coupon below. The results will be well worth the effort.

If you are qualified for any of the above, send resume of your experience. It may prove to be the smartest thing you ever did.

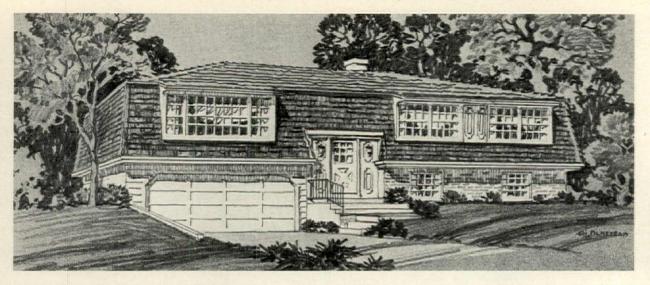
Please have your representative call on me with complete details of the Scholz Apartment Program.		
I presently have land zoned for apartments		
We are interested in building in the	area.	
Please send me the 36-page full color "Famed Scholz Design Collection."		
We are interested in huilding in the	area.	

Mail to: SCHOLZ HOMES, Inc., P.O. Box 3355, Toledo, Ohio 43607.

NAME

SCHOLZ HOMES, Inc.

2001 North Westwood Avenue Toledo, Ohio 43607 • Phone (419) 531-1601

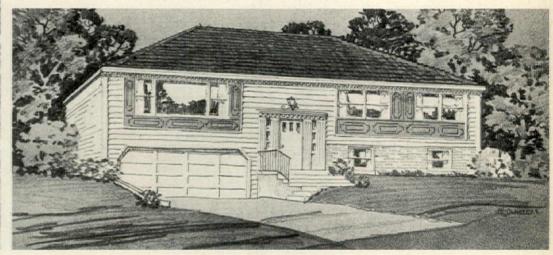








Ballantrae





"A hidden asset at Ballantraeits cast iron pipe water distribution system."



LEONARD W. BESINGER, JR. President
MERITEX CORPORATION, CARPENTERSVILLE, ILL.

"Ballantrae is a planned community located in rolling countryside 25 miles northwest of Chicago. Our home designs and project features reflect our experience in building over six thousand dwellings in the Chicago suburban area. This new community will ultimately have over 250 homes. Plans later call for townhouse apartments adjoining a golf course.

"Ballantrae, like our many other successful developments, offers fine values to the home buyer. We insist on quality in our homes—and naturally are happy to offer residents quality underground as well. Cast iron pipe is used entirely in Ballantrae's water distribution system. Its reliability and ruggedness make it the obvious choice."

This forward-looking developer, like other alert and growing builders, looks to the permanence of cast iron pipe. Its proven long life, resistance to corrosion, its high strength and ability to withstand a combination of severe conditions of internal pressure and external load, the fact that it doesn't absorb water or go soft, all are of paramount concern to the developer—and home buyer! This strength, plus the added economies of speedy installation, with bottle-tight push-on joints, make it an investment with an assured return.

Send for a free copy of "Tract Development, Volume 2," a 48-page book containing useful ideas and information. It's a specially assembled collection of articles by outstanding authorities.

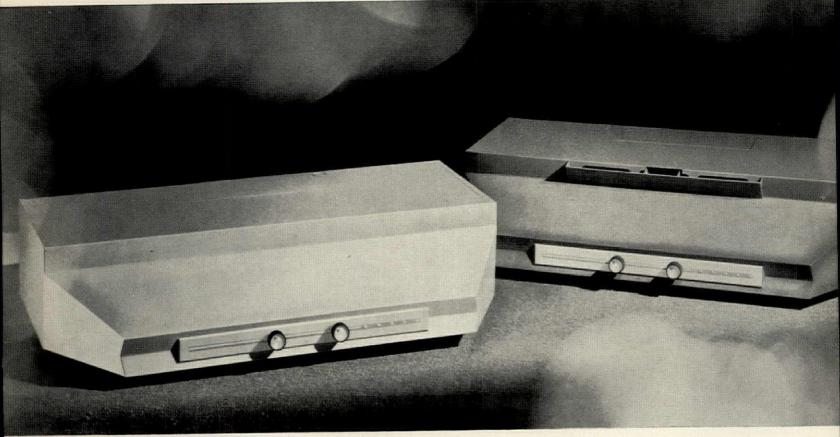


Nothing serves like CAST IRON PIPE

THE MARK OF PIPE THAT LASTS OVER 100 YEARS

Broan-new: a better range hood with solid-state controls, squirrel-cage blowers, larger filters.





And what's more, you even have your choice of duct-free or ducted.

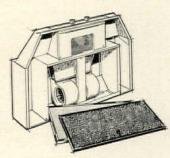
Never before so many important features in a new hood! Solid-state controls offer an infinite number of speed settings. Powering the Broan-new hood are two squirrel-cage blowers that belt out 200

CFM so quietly, they merely whisper at top speed. And the jiffy-out, jiffy-in filters are larger than ever. Hood sizes? 30", 36", and 42". List prices start at \$66.00. Solve all your ventilation problems with range hoods from Broan, the kitchen specialists.

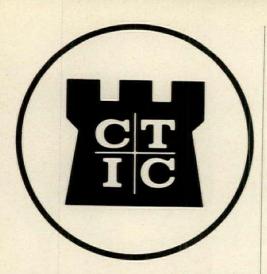




Please ser	MANUFACTURING and me all the inform d with solid-state c	ation you have or	
NAME			
FIRM			
ADDRESS			
CITY		STATE	_ZIP
I am a:	☐ Contractor	Builder	☐ Dealer
	Architect	☐ Distributor	
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The only duct-free hood on the market with so large a grease filter (217 sq. in. aluminum), and odor filter (21/4 lbs. charcoal).



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NEW LITERATURE

For copies of free literature, circle the indicated number on the Reader Service card, p. 131

HARDBOARD INSTALLATION. Revised instruction sheets for manufacturer's 4' and 5' plasticfinished panels—as well as its 16"-sq. ceiling blocks—cover wall preparation, cutting and fitting, and adhesive application. Also: data on moldings. Marlite Paneling, Dover, Ohio. Circle 350 on Reader Service card

exteriors. Four-color 24-page catalog includes complete specs, application instructions and full descriptions on manufacturer's lap and panel sidings. Two pages of photos show siding used as gable ends, soffits and ceilings, fences and patio walls. Includes detail drawings. Masonite, Chicago. Circle 351 on Reader Service card

INSULATING TAPES. Adhesive-backed tapes of foam, sponge, cork, rubber and plastic can be used in place of calking to insulate or block sound. Actual samples are included in a folder that tells how and where to install. With specs. Arlon Products, Harbor City, Calif. Circle 352 on Reader Service card

WEATHERSTRIPPING. Comprehensive 24-page catalog covers a complete line of metal strips for doors and windows. Includes 59 basic types in 194 sizes. Accurate Metal Weatherstrip, Mt. Vernon, N.Y. Circle 353 on Reader Service card

PLASTIC PANELS. Decorator panels that can be used as accent walls, sidelights and folding doors are described and illustrated in a 12-page pocket-sized booklet in full color. It lists all available colors, patterns and sizes. K-Lux, St. Louis. Circle 354 on Reader Service card

INSULATION FACING. A new vinyl-film insulation facing that is 50% stronger and more flexible than its predecessor—and has a UL flame-spread rating of 15—is the subject of a four-page leaflet. A sample is included. Goodyear Tire & Rubber, Akron, Ohio. Circle 310 on Reader Service card

DESIGN AND PANELING IDEAS. Tips on style, color, texture, floor plans and accessories highlight a 24-page brochure filled with four-color illustrations of manufacturer's wide range of paneling. Several color and design suggestions accompany each paneling line. With data on accessory products. Georgia-Pacific, Portland, Ore. Circle 311 on Reader Service card

LAWN FENCE. Low aluminum fencing styled with three rails and 1"-high posts resembles a ranch-style fence in miniature. Nonrust aluminum is finished in white enamel, and the fence is easily assembled without tools. A four-color brochure shows how. Nichols Aluminum, Davenport, Iowa. Circle 330 on Reader Service card

TRADITIONAL PLANS. A 66-page booklet includes more than 100 traditional-home designs

with exterior views and floor plans. Also: brick homes. For copies send \$1 (for each book wanted) to: Garlinghouse, Dept. T., Box 299, Topeka, Kan. 66601.

WALLBOARD SYSTEMS. A comprehensive 32-page manual on drywall systems—with diagrams and detail drawings—includes sections on sound control and perimeter relief. Data on fire resistance, thickness, weight and cost is included on partition and floor-ceiling assemblies. The Celotex Corp., Tampa, Fla. Circle 331 on Reader Service card

FIBERGLASS PLANTERS. Suggestions for imaginative use of molded units are illustrated in a four-color brochure that also explores applications of wood bench-planter combinations, and easily installed fiberglass garden pools. With specs and price list. Landscape Forms, Kalamazoo, Mich. Circle 335 on Reader Service card

INSULATING GLASS. The advantages of insulating glass for all types of windows are cited in a booklet with photos in full color. Includes a list of distributors. Libbey-Owens-Ford Glass, Toledo, Ohio. Circle 336 on Reader Service card

H&H editorial index

House & Home's 1967 editorial index, an eight-page reference guide, is now available.

It includes a cross-reference listing of all subjects covered last year by H&H—115 in all, from acoustics to zoning—plus a combined, chronological table of contents of major articles.

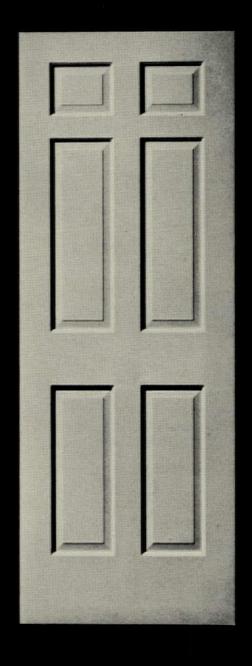
If you'd like a copy of the new index (there's no charge), write to: Reader Service, House & Home, 330 West 42 Street, New York, N.Y., 10036

DRYWALL TOOL. A tool that cuts switchbox openings in drywall—it comes in three sizes complete with cutting heads for 2x3, 2x4 or 4" round openings—is the subject of a four-page brochure. Includes step-by-step application instructions. Hartmeister, Aspen, Col. Circle 337 on Reader Service card

ROOF VENTILATORS. Full-line catalog of centrifugal and axial aluminum roof ventilators includes information on accessories, as well as engineering data. 28 pages. Loren Cook, Berea, Ohio. Circle 300 on Reader Service card

LAWN/PATIO LIGHT. Information sheet describes and illustrates an automatic electric yard light made of polycarbonate, and supplied with a steel pole. Unit turns on at dusk and off at dawn. American Electric Mfg., Southhaven, Miss. Circle 301 on Reader Service card

New literature continued on p. 144





Put away the filler, get rid of your sander and save your primer. Weyerhaeuser one-piece molded doors are here.

We've taken the major problems and work out of panel doors.

The answer was really quite simple - a molded door face made out of a tough, resin-impregnated wood fiber. This 3-dimensional onepiece surface is absolutely smooth. No grain. No checks. No splits. No possibility of joint cracks.

They come already primed. Ready to paint. Without doing a thing to

them. Except installing standard hardware.

Just think of all the money you can save. And the call-backs you won't have to face.

Weyerhaeuser molded doors come in all popular door widths from 9" to 3/0; in lengths 6/6 and 6/8.

us a coupon.

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Zip___

Please send me more information on your new one-piece molded

door. Name

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PVC MOLDINGS. A line of moldings for 1/4" paneling can be installed with nails, staples or adhesive. Six styles come in 8' lengths, A fourpage brochure discusses the line. Marlite Paneling, Dover, Ohio. Circle 303 on Reader Service

PRESSURE-TREATED LUMBER. The advantages of treated lumber for a wide range of construction uses are enumerated in a 12-page catalog. Special sections discuss specific job requirements and indicate suitable species and grades. With specs. Koppers, Pittsburgh. Circle 304 on Reader

SEAMLESS FLOORING. Photos of completed applications highlight a four-page brochure in full color. Also includes step-by-step application photos. Flecto, Oakland, Calif. Circle 305 on Reader Service card

ADMIXTURES. Sitxeen-page catalog examines a wide range of products for improving concrete and mortar, by air entrainment, curing, sealing, waterproofing and coloring. Includes performance graphs and charts, estimating data and specs. Master Builders, Cleveland. Circle 306 on Reader Service card

WOOD CONCRETE FORMS. The advantages of wood for use in concrete-form construction are cited in a four-page brochure that is highlighted by a grade selector and coverage estimator. Western Wood Products Assn., Portland, Ore. Circle 308 on Reader Service card

TEXTURED PLYWOOD. A paneling portfolio includes four-color application photos, application and finishing tips, (for both new construction and remodeling) plus a list of manufacturers for a wide range of siding types. American Plywood Assn., Tacoma, Wash. Circle 309 on Reader Service card

SOUND-DEADENING. A brochure on 1/4" gypsum sound-deadening board includes performance graphs and detailed diagrams. A special section compares its performance with competitive systems of wood and glass fiber. Georgia-Pacific, Portland, Ore. Circle 312 on Reader Service card

PRESSURE-TREATED LUMBER. An eight-page brochure describes treatments that protect wood from termites, fungi and other natural hazards. It includes a separate section on fire-resistance, plus specs. Wyckoff, Seattle. Circle 320 on Reader Service card

TOOLS AND EQUIPMENT. A new four-model line of portable centrifugal pumps and two concrete vibrators are included in a 48-page brochure. Other additions: power and electric-chain saws; electric-masonry and demolition hammers. Skil, Chicago. Circle 321 on Reader Service card

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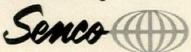
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