

he 7-plex: new high-density package actory-built housing: making sense at last



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"Here's how NuTone Security Alarms help sell my homes."



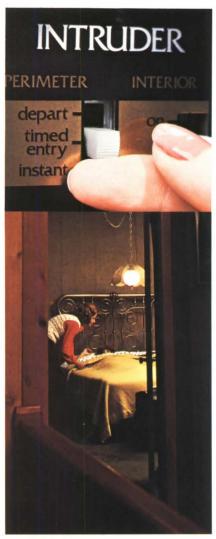
Milton Marcus / Milton Marcus Homes, Houston, Texas Greater Houston Builders Association and NAHB

"NuTone systems do help sell our homes. Buyers feel a lot more secure with them in. They want a little more peace of mind, because, let's face it, the crime rate is going up, here and all over the country. So the whole market is going that way. "People are more conscious of the danger from fire, now, too. It seems fire is the big 'bug-a-boo' these days. So I put the total NuTone package—fire and burglar—in about 55-60% of my houses. When people buy in this price range it just makes sense to have a good security system.

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"I've been in the building business 31 years. I've used NuTone products for many, many years...because I think they're good quality. To show you how much I believe that, I'll tell you, my own home has everything NuTone: vac system, intercom, burglar, fire, bath heaters... everything! I'll always use NuTone. I trust NuTone quality."

NuTone's Model S-2300 offers homeowners 24-hour detection of fire or attempted burglary.



Families investing in homes today need continuous protection, and they know it. The latest statistics are truly disheartening: burglaries every 12 seconds...residential fires claiming 11 billion dollars in property and 300,000 victims a year...yet the statistics don't even begin to touch on the real suffering caused by undetected fire and intrusion.

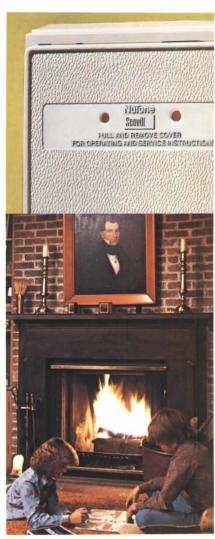
That's why more and more builders are putting in NuTone's Model S-2300, to watch for intrusion and fire 24 hours a day. The S-2300 is NuTone's finest system...a work of electronic



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A comprehensive choice of residential security alarm systems... reliable, flexible, affordable, easily installed, and backed by NuTone's 40 years of experience with built-in products for the home. UL Listed.

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HOUSE&HOME THE MAGAZINE OF



Volume 52 Number 1/July 1977

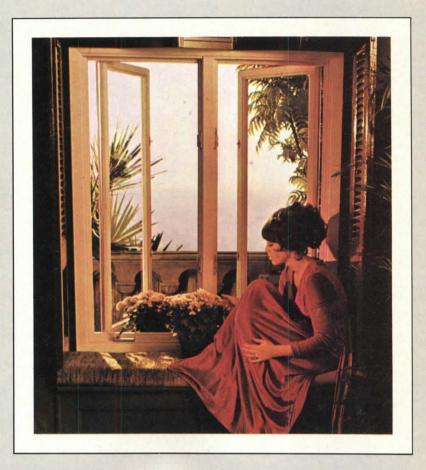
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		Award-winning ventures in rehab and remodeling

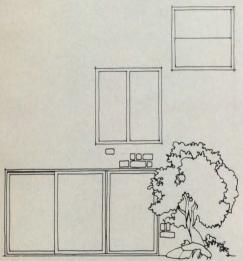
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Rising costs: Let's go after all the culprits

Everybody in housing is talking about costs—a good thing considering how fast they are rising.

But almost everybody points to government's role in the housing process as the primary cost raiser. This is not a good thing.

Certainly governmental red tape has raised costs disproportionately in many areas. But to suggest that it is virtually the only reason for skyrocketing prices is not only inaccurate; it diverts attention from other cost-boosting factors that the industry could attack.

Take construction of the house.

We were shocked to learn, in preparing our story on factorybuilt housing (see page 64), that hard construction costs for a no-frills house of 1,500 sq. ft. can vary from \$15 to \$25 a sq. ft. Had we looked longer, we suspect, the range would have been

The difference is enough—\$15,000 here—to merit scrutiny. And—unlike the costs of land or money or red tape, it is something the builder can change—by himself and right now.

He can't control the unit cost of materials. But he can curb the waste of these materials, especially lumber, through better on-site job supervision and precise preconstruction planning.

He can't control high union-labor rates (although we haven't tried very hard recently, have we?). But he can reduce unnecessary labor by simplifying designs. And he can make his labor more efficient, again through better supervision and planning.

He can't reduce time wasted on government red tape. But he can spend less time building his houses. It's ridiculous to devote 120 working days to a 1,500-sq.-ft. house, as some builders do; 50 days are enough. And this would also cut the financing cost of the most expensive part of the package—the structure.

We are in no way suggesting that the high costs of government approvals, land or rezoning should get less attention. On the contrary, we suggest that all are important, all should be attacked. But making a scapegoat of one won't help a bit.

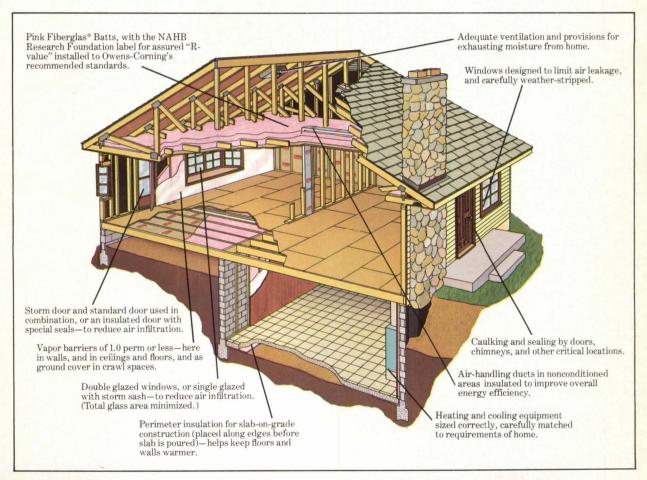
5 reasons to call Owens-Corning first when you want to build energy-efficient homes

Owens-Corning is the leading manufacturer of insulation in America.

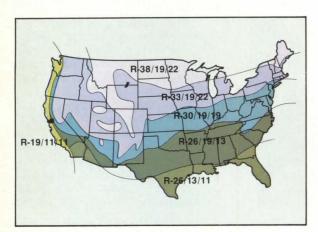
So Owens-Corning has accepted the responsibility of leadership in helping builders adapt to the energy crisis.

Here, on these pages, are five important ways Owens-Corning has tried to make it easier and more profitable for you to offer energy-efficient housing.

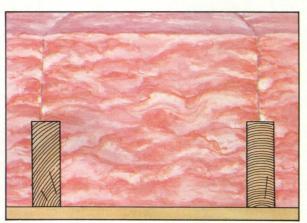
Look them over. Then, to get fast action regarding any of the ideas, go straight to the *source*. Call your Owens-Corning sales office, or write: I.K. Meeks, Fiberglas Tower, Toledo, Ohio 43659.



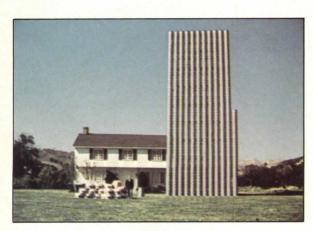
1 The Owens-Corning Energy-Efficient Home. This new program is a systems approach to energy saving. Homes built to these recommended 10-point specs are designed to cost *significantly* less to heat and cool—so they *sell better*. And they may not cost you any more to build than ordinary homes!



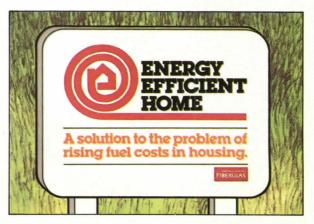
• Owens-Corning recommended minimum insulation guidelines. These are conservative recommendations, by different climate zones in the United States, for costefficient levels of insulation.



3 New higher-R batts. Owens-Corning's new R-30 Fiberglas* batts—with the NAHB Research Foundation label for assured thermal performance—make it easier to meet new standards.



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Joan wins the **Irvine Ranch**

A \$337-million poker game won by the girl of the golden West

To the dismay of the buyers involved, the final two incredible weeks of bidding for the Irvine Ranch in California turned into a high-priced auction as much as a company acquisition. (See table below.)

The prize was the 130-square-mile jewel of a landholding in the heart of expensive Orange County. There were 7,000 acres of developed land and 70,-000 acres of undeveloped property that included 3½ miles of pristine California coastline between Newport Beach and Laguna Beach.

Contending for the holding were Mobil Corp., the fifth largest company in the U.S., and Taubman-Allen-Irvine Inc., a ten-member national consortium including Henry Ford 2d and a group of banks headed by Wells Fargo. The major principals in the firm are Alfred E. Taubman, a Detroit shopping center developer, and Donald Bren, a southern California homebuilder.

Calling the hand. The final stretch of bidding lasted nine consecutive workdays, with each party allowed only 24 hours to outbid his opponent, the total offer to be paid in cash. Toward the close, Mobil made a gofor-broke offer of \$336.6 million, or \$40 per share of Irvine Company stock, topping the Taubman offer of the previous day by a hefty \$8.4 million.

The bid was meant to intimidate. The Taubman group came back with only a slightly higher bid of \$337.44 million, an offer just ten cents a share higher than Mobil's bid. With that bid, however, Mobil threw in the towel, losing a three-year effort to acquire the Irvine ranch.

Mobil's failure to acquire the Irvine Co. came about because it failed to reckon with the tenacity of Mrs. Joan Irvine Smith, 43, favorite grand-



Joan with victory smile.

daughter of the founder of the Irvine Ranch, and largest minority shareholder prior to the Taubman purchase.

Joan of Arc crusade. For all her adult life Joan has been fighting the Irvine Co., or more specifically the Irvine Foundation, for operational direction of the Irvine Ranch. The foundation, a charitable trust, was formed by grandfather James Irvine to keep his heirs from breaking up his original 103,000acre citrus and cattle operation. The foundation was willed 54% of the stock and was ruled by lifetime trustees personally selected by James Irvine.

Seeking to diversify, Mobil in 1974 offered to buy the Irvine Co. for \$200 million in preferred and common Mobil stock. Mrs. Smith immediately filed suit to block the Irvine Foundation from selling the company to Mobil. She

HOW THE BETTING WENT

Date	Offer (millions)	Per Share (dollars)	Bidder
April 20	\$302.94	\$36.00	Taubman
			Allen
			Irvine
May 2	307.15	36.50	Mobil
May 9	309.25	36.75	TAI
May 10	316.4	37.60	Mobil
May 11	317.66	37.75	TAI
May 12	321.87	38.25	Mobil
May 13	322.7	38.35	TAI
May 16	326.1	38.75	Mobil
May 17	328.18	39.00	TAI
May 18	336.6	40.00	Mobil
May 19	337.44	40.10	TAI

hinted at a sweetheart deal between several foundation directors and Mobil, and she claimed she would be forced out of the company by the sale.

"This [sale] is in essence . . . a gift to Mobil Oil," she testified.

'Just loves to fight.' The suit was the 17th legal action that Mrs. Smith had filed against the Irvine Foundation in 20 years.

"Mrs. Smith just loves to fight," remarked the Irvine Company's president, Ray Watson, recently.

True to form, the socialite Mrs. Smith gave Mobil more than it bargained for. Early in 1975, the California attorney general joined her in her suit, seeking an injunction to insure that the Irvine Co. sale was conducted in a way that would most benefit the foundation's charities. The court issued the injunction against the sale, and its ruling seemed to suggest that the Irvine Foundation had not seriously sought buyers other than Mobil.

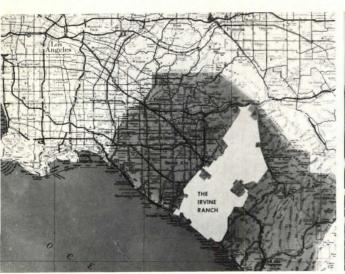
When the trial got under way in September 1976, and haggling began over the actual value of the ranch, several companies expressed interest in buying. Cadillac Fairview, a Toronto land developer, bid \$265 million in cash and

Opening bids. Because of increased interest in acquiring Irvine, the trial was recessed, and for the next six weeks bidding see-sawed between the Toronto firm, Mobil Corp., and an impromptu corporation known as SMHB & Z-761. The latter group included Alfred Taubman and Charles Allen Jr., a New York financier. (The code name for the corporation consisted of the initials of Taubman's law counsel, and the numbers designated one of the law firm's procedural codes.)

Mobil eventually won the bidding on December 9, 1976, with an all-cash offer of \$281.9 million. Taubman and Allen immediately called foul, claiming their group had begun telex transmission of a new offer before the bidding deadline but had interrupted the message to make a minor change in wording. The altered transmission failed to arrive before the deadline hour, and the Irvine Foundation refused

Victory in court. The Taubman-Allen forces regrouped, secured increased financing from ten banks, and invited Mrs. Smith to join the group with the assurance that she could buy 10% interest in the new Irvine Co.

The Taubman alliance then submit-



Irvine Ranch sprawls over 77,000 acres of Orange County (shaded), south of Los Angeles. It has 31/2 miles of coastline.



City of Irvine and developed area now cover only 7,000 acres. Much of rest is farmland. Housing sells as fast as it is built.

before a decision was handed down in Mrs. Smith's suit against the Irvine Foundation. With the new bid, the foundation relented, permitting another round of bidding, and the final freewheeling auction got under way.

Victory in her stars. A jubilant

ted a new bid of \$302.94 million in cash Mrs. Smith savored her victory, the sweetest in her 20-year battle with the Irvine Foundation. Her success was more personal than financial, however. Had she gone along with Mobil's modified \$200 million offer, the value of her stock would have nearly doubled since that time. The Taubman offer, all in cash, means that Uncle Sam gets a large share of Mrs. Smith's take.

Joan said that she was unworried during the closing days of the bidding.

"My astrologer said it would happen May 20," she explained.

"And it did." -MIKE MURPHY McGraw-Hill News, Los Angeles

For Irvine-new broom and speed-up?

Joan Irvine Smith testified during trial of her suit to block the Irvine sale that she and Alfred Taubman agreed that the Irvine management was top heavy and that deadwood could be eliminated.

Privately, company officials had been pulling for a Mobil victory.

In published reports attributed to Taubman, the Detroit developer was initially said to believe that residential development on the ranch could be speeded up.

In the final days of the bidding, however, Taubman appeared more conciliatory. He said management had been doing a fine job and that the new owners were aware of the Irvine Company's social responsibilities in carrying out a master plan for development in Orange County.

(Taubman is no longer commenting about plans. His office read this statement to callers: "We are in the process of finalizing agreements, and, until they are completed, we will have no statement." Taubman would not make himself available.)

Rise in earnings. The company net-

ted \$17 million last year and its developed properties were valued at \$158 million. Sharp increases in net earnings and property valuation were forecast by management earlier this year.

There seems to be consensus among homebuilders now active at Irvine that it would be difficult to step up residential development.

"They are very knowledgeable," says Robert S. McLain, president of McLain Development, but he warned that "given the present political climate," it will be difficult to move much faster at Irvine.

Obstacles. The Irvine Co. deals regularly with at least three governmental bodies as it develops and builds its villages—the cities of Newport Beach and Irvine and the California Coastal Commission. None of the agencies is committed to growth.

"Providing utilities, particularly sewage disposal, is a real problem in southeast Orange County," says Richard Chenoweth, president of M.J. Brock & Sons, an Irvine builder.

One of the biggest of all concerns

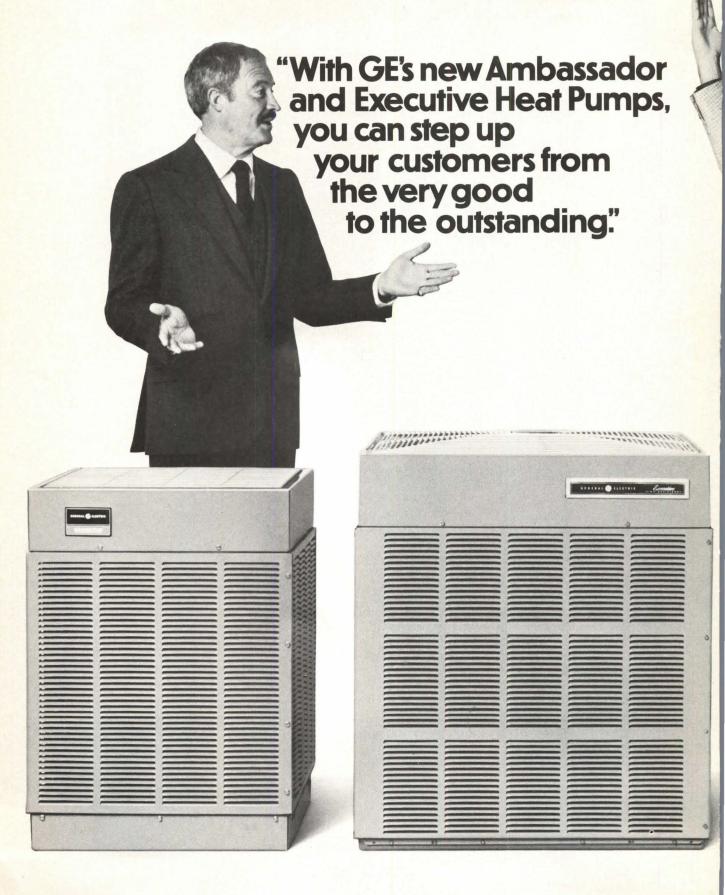
among Irvine homebuilders is what role Don Bren, former president of Mission Viejo, will play in the development of Irvine. One builder sees Bren's presence in the new group as a plus for Irvine builders.

"Bren is a talented, sensitive developer," says Edward Akins, president of Akins Development. "If he gets involved, we should see some good things at the Irvine Ranch."

Richard Smith, president of Broadmoor Homes, said wistfully:

"Bren's in an enviable position as a builder." -M.M.







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California builders hear a warning

California's homebuilding industry can look ahead to continued good times but the caution sign is up, industry leaders told the Pacific Coast Builders conference in San Francisco June 1-3. The meeting attracted more than 7,000 persons.

While speakers warned repeatedly that the frenetic sales pace will level off later this year or early next year, builders in the nation's hottest market kept right on smiling.

Eli Broad, chairman of the Los Angeles-based Kaufman and Broad, foresaw a strong industry because "housing is America's largest unmet consumer need." But he believes prices in California, now \$15,000 higher than the average in the rest of the country, will reach a plateau in the near future.

"The euphoria of the last two years is about to end," Broad warned. Late this year or early in 1978, he predicted, there will be wider competition in capital markets and lenders will adopt a more conservative approach to construction and land financing.

Hope for a slowdown. Nathan Shapell, chairman and president of Shapell Industries, Beverly Hills, hoped to see home sales and construction decrease by at least 25%.

"Don't overextend, and don't try to eat the last bite," he urged builders.

Shapell said shortages of land and rising costs of labor and materials threaten to price middle Americans out of housing.

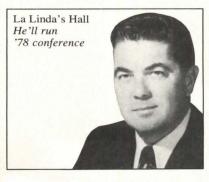
But in a session on financing, the president of the Federal Home Loan Bank of San Francisco criticized reports that the California housing baloon is about to burst.

"We're trying to bring it in for a soft landing, not a resounding crash," said Maurice Mann.

Caution signal. In April Mann's bank signaled that it was time to slow down. It increased rates on advances to member S&Ls by a full percentage point. Mann himself thinks the speculative sales situation is correcting itover and that the "real pros," who bought houses for appreciation, were starting to sell.

'A mockery.' President Robert Arquilla of the National Association of Home Builders was more outspoken. He is deeply disturbed by price trends in California, Arquilla said, and he added that "lotteries are making a mockery out of building and buying a house. We hope it will stop."

Emmett S. Clifford, vice president



self, aided by policing efforts of mortgage lenders and builders.

Mann expects the rate of increase in home prices-2% a month in some locations-to decline. He said California might have some oversupply of units this year but that there is no cause for alarm because basic demand is strong.

Anthony Frank, chairman and president of Citizens Savings & Loan in San Francisco, agreed that the rate of building would soon end the imbalance between supply and demand. He said speculation fever was just about



of McKeon Construction of San Mateo, was elected president of the California Builders Council. He succeeds Robert M. Holmes, president of Oltmans Construction Co., Monterey Park. The PCBC elected Richard M. Hall, principal of La Linda Homes, Garden Grove, as its president to head the 1977 conference. This year's president was Paul Opp, principal of Paul Opp & Sons Construction of Sacramento. —JENNESS KEENE

McGraw-Hill World News San Francisco

APARTMENT MANAGEMENT

Mini-revolution in Berkeley -rent control is guillotined

The tide has turned in the rent-control stronghold of Berkeley, Calif.

On April 19, voters soundly defeated two measures which would have fixed rents and set up collective bargaining for tenant-landlord disputes.

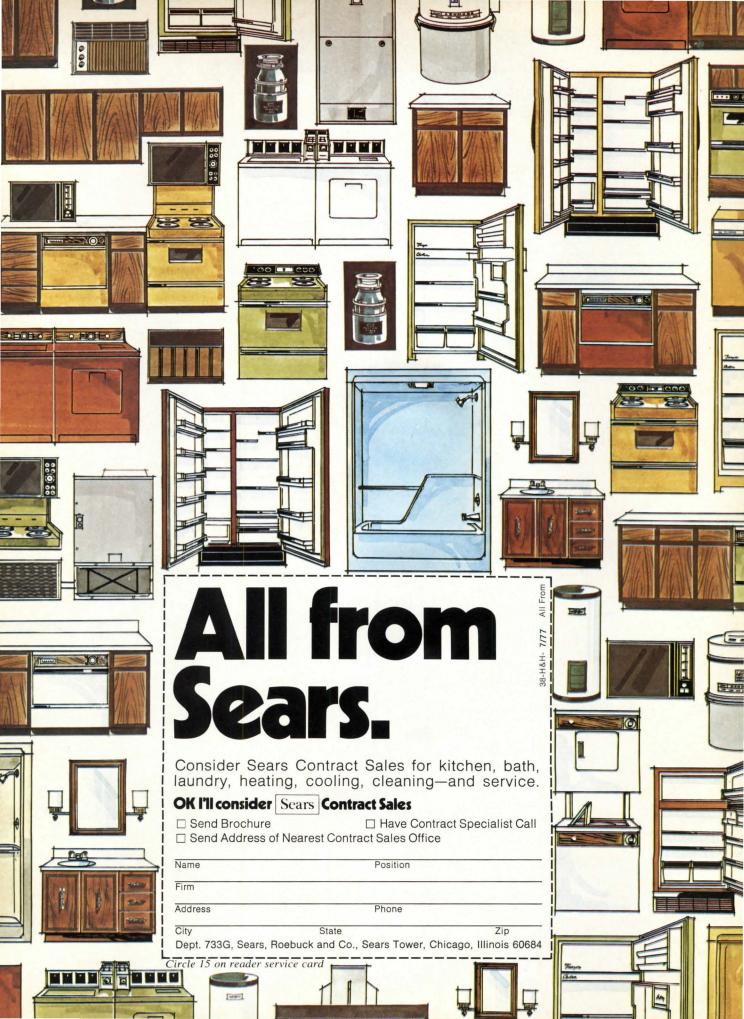
The election may indicate that the revolution has ended and moderation has returned to Berkeley. Three city council candidates backing rent control were ousted, one of them an incum-

The campus city had approved a rent-control charter amendment in 1972, but last June the state supreme court declared it unconstitutional. The

court found that the amendment's provisions for evictions conflicted with state law and that the amendment did not provide for general rent adjustment. The new measure was written to remedy these faults.

Plan for rollback. Under the new amendment, rents would have been frozen for 90 days and then rolled back to those charged on June 6, 1976. A paid, elected five-member board would have controlled rents. The panel could have made general rent adjustments once a

□ 18



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Perma-Shield Gliding Windows come completely assembled. No hardware to apply or lose. Continuous installation fin eliminates need for separate flashing on frame wall construction. Easy to install in all types of wall construction.

year, taking into account the owner's expenses and income available to ten-

Tenants and landlords could have petitioned for individual adjustments.

Costs of maintaining the control board would have been paid by landlords through an annual fee charged for each rental unit. The measure also provided that landlords comply with all city and state codes.

The sponsors, the Berkeley Housing Coalition, including tenants' organizations, claimed that landlords take advantage of the city's low (under 2%) vacancy rate by charging unreasonable rents. The rent control bill would have affected about 22,000 units, many occupied by students on a short-term basis.

Landlords' stand. Opponents contended that controls would dry up the housing supply, with some landlords deciding not to rent at all. Other landlords, the opponents said, would select only affluent tenants, leaving students and poor people worse off than before.

Another proposal would have encouraged tenant unions.

Tenants' groups in Berkeley say they

will work to defeat a bill pending in the California legislature that would take rent control away from localities and put it in the hands of the legislature. Last fall, Governor Edmund G. Brown Jr. vetoed a bill that would have prohibited local governments from enacting rent-control ordinances.

RENT CONTROL ACROSS U.S.

The New York state legislature has just extended the Emergency Tenant Protection Act, the legal base for rent stabilization, for four years.

The Federal Reserve Bulletin for March points out that, in mid-1976, controls were in effect in 230 communities-mostly along the east coastcontaining 14% of the population. Another 14% of the population lives in states that permit control or where state or local governments have recently considered rent-control laws.

Controls are in effect in 100 New Jersey communities, including Atlantic City, Newark and Jersey City; in Baltimore and Washington, and in Fairbanks and Valdez, Alaska.

THE COURTS

Supreme Court kills for-sale sign ban

Local governments' attempts to stem white flight by banning "For Sale" and "Sold" signs on houses are probably unconstitutional, the Supreme Court has ruled.*

The 8-to-0 decision overturned an ordinance passed in 1974 in Willingboro, a New Jersey township across the Delaware River from Philadelphia. The middle-income community was developed by Levitt and Sons beginning in the late 1950s.

Willingboro banned "For Sale" signs after its non-whites jumped from 11.7% of the population in 1970 to 18.2% three years later. Growth had come close to a standstill and the house turnover rate had reached 11% a year. The township council enacted the ban, modeled on statutes in Shaker Heights, Ohio and other cities, to stem panic selling. It acted with the approval of many citizens who testified at public hearings. There was testimony that in February 1974 there were 230 "For Sale" signs posted among Willingboro's 1,000 homes.

Free speech. The Supreme Court agreed, nevertheless, with the arguments of Linmark Associates, a Jersey corporation that has since sold its acreage in the township, and a real estate agent, William Mellman, that the law violated the first-amendment prohibitions on government actions that curb free speech.

The court's only black, Justice Thurgood Marshall, wrote the opinion. Justice William Rehnquist took no part in

The court held that commercial speech is due constitutional protection and that "it is clear that commercial speech cannot be banned because of an unsubstantiated belief that its impact is 'detrimental.' '

Marshall's opinion insisted that, "If dissemination of this ["For Sale"] information can be restricted, then every locality in the country can suppress any facts that reflect poorly on the local-

Effect of signs. The ban on "For Sale" signs is rated as especially bothersome to real estate dealers because the signs are not only cheaper than alternative ways of telling would-be buyers that a house is for saleprimarily newspaper ads or realty service listings; they are widely believed to be more effective than other media in

reaching those who are not actively in the market but might be attracted by a particular house.

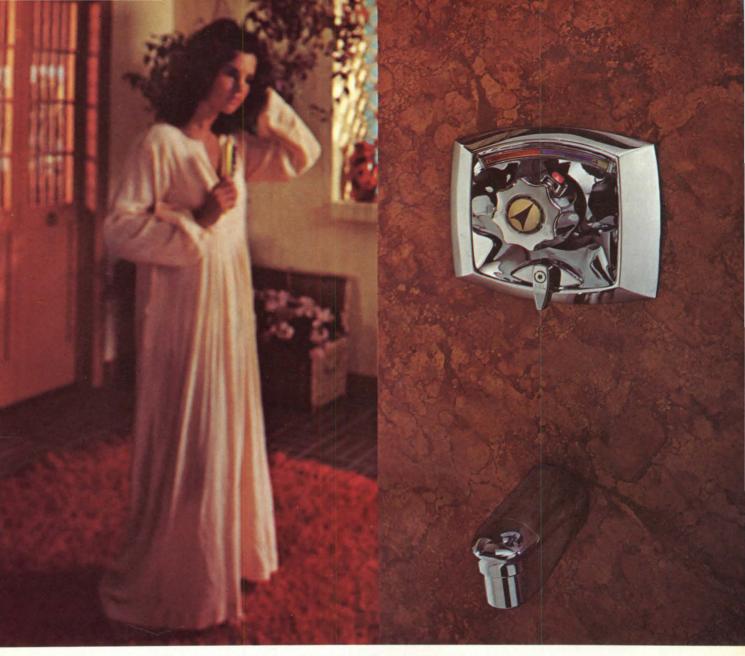
Marshall suggested that a ban might withstand constitutional tests if it reached all lawn signs, or all lawn signs over a particular size, and was based on aesthetics rather than an attempt to still news about neighbors' plans to leave a community.

Loopholes. The justices deliberately left open the question of whether sale signs could be banned if it really could be shown that the signs were leading to massive white flight. That direct connection was established in a case, not taken to the high court, in which a similar ban was upheld in Gary, Ind.

In Willingboro, the justices said, the record just did not show that the signs were causing a white exodus. In fact, they pointed out that the sales rate in the township was the same for the first nine months after the signs were banned as it had been before the ordinance, and that there is reason to believe that, in some situations, "banning signs may fuel public anxiety over sales activity by increasing homeowners' dependence on rumor.

> -DAN MOSKOWITZ McGraw-Hill News, Washington

^{*}Linmark Associates vs. Township of Willingboro, Docket No. 76-357; ruling May 2, 1977.



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Circle 19 on reader service card

States look to the sun

Many are promoting solar energy conversion with tax relief

While the heat's on Congress to act on Jimmy Carter's energy conservation proposals, 23 states have elected to let the sunshine in.

Even before last winter's Big Freeze-in fact, as far back as 1974state legislatures began an attack on the energy-cost spiral by passing laws encouraging conversion to solar heating and cooling.

Most legislation involves deductions for homeowners against state income taxes or exemptions from property taxes. And many states have authorized local communities to grant their own tax credits.

Property tax relief. Last year Arizona authorized owners to amortize

solar-equipment costs over 36 months on their state income tax returns. In 1974 it had exempted those with new solar apparatus from property-tax in-

Connecticut has authorized local authorities to exempt owners of solarized homes from post-installation propertytax increases. A Maryland statute is similar but more specific. In that state, the property tax on "new or existing houses" with solar heating cannot be "greater than it would be with a conventional system."

Michigan has three solar-energy laws. One grants a business-tax exemption for manufacturers of solar equipment. Another exempts homeowners purchasing solar equipment from an excise tax and a third deducts the cost of solar equipment and installation from property taxes.

Montana goes a step further and allows a property tax exemption for homeowners installing any "alternative energy system."

Texas exempts those who sell, lease or rent solar devices from the state sales tax. Vermont and Virginia leave it up to localities to create solar-installation exemptions.

Income taxes. Arkansas homeowners can deduct the full cost of solar equipment and installation from their state income tax for the year in which the equipment was installed. A similar Idaho deduction is spread over four years, with a \$5,000 ceiling on any single year's deduction.

Indiana's three-year-old law grants a deduction "equal to the assessed value of the property with the solar system minus the assessed value without the system, or \$2,000, whatever is lesser."

Kansas homeowners can deduct 25% of a solar system's cost—up to \$1,000—from income taxes.

South Dakota's 1975 law allows a

Energy lending: cautiously energetic

Three northeastern savings banks decided to meet the energy crisis head-on last winter by easing terms on homeimprovement loans.

The banks are actually something of an exception, however. Mortgagelending institutions across the country are generally exercising caution in their approach to the energy shortage.

The three banks-The Society for Savings of Hartford, Conn., City Savings Bank of Middletown, Conn. and Monroe Savings Bank of Rochester, N.Y.—adopted their new policies last January while the Big Freeze held the region in its icy grip.

Bargain rates. The Society for Savings set aside around \$2.5 million for energy-saving improvement loans. The bank's home-improvement loan rate was 12.5%. In January, that dropped to

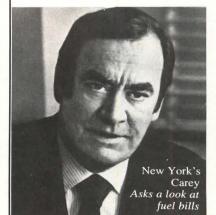
City Savings created two new loan plans. One offers an energy-saving home-improvement loan at 10% instead of the usual 12%. Another offers a 9.5% auto loan for vehicles with "proper" Environmental Protection Agency ratings.

Monroe Savings advertised a 9.5% energy-conservation loan—a from 12%. The bank also launched an educational energy campaign via brochures and seminars in the Rochester

Besides creating new loan plans—a policy many lenders consider risky because it is dependent on consumer demand-savings banks are putting their own houses in order. Fidelity Mutual of Spokane, Wash., for instance, re-

New York's energy plan: Cash 'n Carey

Trying to grab a slice of the federal money pie, Governor Hugh Carey has unveiled an ambitious energy-conser-



vation plan for New York state.

If successful, the proposal would reduce fuel consumption 7.3% by 1980. To qualify for federal financing under the 1975 Energy Policy and Conservation Act, a state must prove it can cut fuel consumption by 5%.

The Carey plan promises a controversy. Homeowners selling houses would have to provide buyers with copies of fuel bills for the preceding year along with a written assessment of the structure's energy efficiency. The plan also asks for a ban on gas pilot lights in stoves and furnaces.

The overall proposal calls for voluntary action to improve furnace maintenance, to pool autos and to educate the public to energy conservation.

\$2,000 deduction or the difference between a home's value with a solar system and without it.

Credits. Two warm-weather states, California and Hawaii, give homeowning residents a 10% tax credit—up to \$1,000—on the cost of solar equip-

While Maryland has no statewide policy for solar owners, it has assigned the task of granting exemptions, credits and deductions-if any-to county authorities. New Mexico, on the other hand, allows a maximum credit of \$1,000 or 25% of a solar system's cost.

Other states have also generated legislation dealing with solar and other "alternative" forms of energy for residential housing. Colorado lawmakers voted last year to assess solarized homes at 5% of their original value for property-tax purposes. The ordinary assessment is 30%. In Illinois, when a homeowner purchases a solar system, he may claim the improvement value of a more conventional system.

Shadow boxing. Besides exempting owners of solarized homes from ad valorem property taxes, Oregon has a statute, enacted two years ago, allowing city and county planning commissions to recommend ordinances governing building height. As solar-energy use increases, such ordinances may be necessary to prevent taller structures from casting shadows that reduce the effectiveness of solar devices in lower buildings.

Banks' role. Since 1975, Massachusetts has enacted three solar-oriented laws. The latest, passed this year, authorizes banks and credit unions to make loans with extended payback periods. A 1976 law allows corporations to deduct a solar system's cost from taxable income and exempts owners of solar devices from property taxes. The third law exempts solar system owners from real estate taxes on their equip-—Tom Allen ment.

States v	vith so	lar heat	ing tax	incentives
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Exemptions	Deductions	Credits	Other
Arizona	Michigan	California	Arizona
Connecticut	Arkansas	Hawaii	Maryland
Michigan	Idaho	Maryland*	Texas
Montana	Indiana	New Mexico	Colorado
Vermont*	Kansas		Georgia
Virginia*	South Dakota		Illinois
Oregon	Massachusetts		Massachusetts
New Hampshire			
North Dakota			
Massachusetts			

*Tax incentives—if any—determined by local jurisdictions.

Source: National Solar Heating and Cooling Information Center, P.O. Box 1607, Rockville, Md.

duced its lighting after work hours. The cutback reduced electric bills by 20%.

No-nonsense stand. Of the various lenders' organizations, the Mortgage Bankers Assn. espouses the firmest line on energy-related lending. In its initial response to President Carter's energyconservation proposals, the MBA stated:

"Thermal efficiency will have to be taken into consideration in the underwriting of home loans. Bill payments for heating in the colder regions and for air conditioning in the Sun Belt have, in many cases, exceeded mortgage payments for many individuals.

"In such cases, we could help by raising the qualifying income for home mortgages.'

Explains Robert Gray, the MBA's public relations chief in Washington:

"If a house is structurally sound but doesn't have sufficient insulation to keep the bills down, then a prospective buyer could be barred from buying the house on the basis that his income wasn't high enough to cover both the fuel bills and the mortgage payments."

'An illusion.' Of speculation that a buyer's promise to increase his new home's energy efficiency might lead to lower mortgage rates, Gray says succinctly, "That's an illusion."

"You can't go up to a guy and say, 'If you insulate or convert to solar heat we'll give you a loan at 8% instead of 8.75%.' The mortgage has to be resold in a secondary market. No investor would accept it at a lower rate."

Gray is among those skeptical about reduced-rate home-improvement loans. He terms them "good public relations" but he thinks, like others, that they may not be sufficiently profitable for the lender. Lower than expected volume, some lenders say, may restrict the special loans to blue chip credit risks. At this point, however, consumer response to the new reduced interest loans is difficult to measure.

The S&Ls. The U.S. League of Savings Associations calls for a possible "readjustment in the resale price for homes whose owners have made energy-conservation improvements." Such readjustments, says spokesman James Kendall in Chicago, "will cause a higher resale price."

The league will also recommend measures to curb rising home fuel costs. The recommendations include:

- New S&L underwriting procedures that recognize spiraling energy
 - · A lending program that "consid-

ers the thermal characteristics of property."

 Development of an alternative mortgage plan to cope with rising fuel

Mortgage adjustment. Other recommendations Kendall says, are in the

"We'd like to have some flexibility in mortgage payments that reflects energy-conserving improvements in a home," he explains. "Suppose a buyer with a \$50,000 house spends \$5,000 on solar equipment. We're now talking about a \$55,000 house. There should be some way to factor that into the mortgage instrument."

No firm policy. The National Association of Mutual Savings Banks, through its spokesman Richard Pokriefke in New York, says it has "no firm policy" dealing with homeowners electing to install solar equipment or improve insulation.

"Until something takes shape in Congress," Pokriefke says, "we're playing it by ear and keeping our membership informed."

Pokriefke made it clear he was speaking for the association, of course. and not for its individual savings banks. -T.A.

Credit unions easing into mortgages

Credit unions—and their group is the comer among financial industriesthink a go-ahead from Congress for them to buy 30-year mortgages can bring \$3 billion more a year into home financing.

The Credit Union National Assn. predicts the triple-billion pace will be reached three years after congressional clearance permits the 13,000 federally chartered CUs to make mortgage loans. A CUNA survey at year-end 1974 found that 4,380 of the nearly 17,000 statechartered unions had already lend \$2.2 billion on mortgages. Twenty-six states let state-chartered CUs do mortgage lending.

For five years, admits Richard Henneges, specialist for CUNA, credit unions will be marginal mortgage lenders. Homebuyers will go first to a savings and loan association or a bank. Only if money is unavailable from the usual sources will a credit union enter the picture.

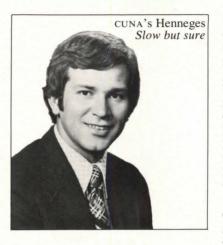
Obstacles. Builders won't be able to get mortgage commitments from CUs the way they do from S&Ls.

A mutual S&L can turn an outsider into a shareholder, eligible for a mortgage, by selling him a single, inexpensive share of its stock.

It's not that easy with credit unions. The rule that CUs may lend only to bona fide shareholders is strictly observed, and membership does not come easily. A builder or Realtor who wants a CU mortgage must usually deal with a credit union member who wants to buy a house-not with a random buyer who would be willing to join a credit union in order to buy a house.

The caution of CU regulators raises another constraint. Normally the CU is small. It is inexperienced in those mortgage-market risks that have thrown the most sophisticated of the big commercial banks for big losses in recent years. The CU could get into trouble making mortgage loans, and some of the states that do permit such loans limit the lending powers to institutions with \$1 million or \$2 million in assets. That weeds out a lot of CUs.

Stern watchdog. The National Credit Union Administration, with headquarters in Washington, prides itself on watching federally chartered CUs a lot more closely than bank regulators watch banks. Says General Counsel John Ostby:



"We will be very, very cautious. There will be a natural reluctance to commit [to mortgages] funds that had been liquid."

The credit unions, essentially nearterm lenders, will remain consumerloan specialists. They will, at least initially, make mortgage loans only on request from members.

But CUNA says members are now pressing their CUs to make mortgage loans more frequently than ever before. And this seems part and parcel of a larger phenomenon, the discovery of the credit union by middle-income groups after the inflation and credit shortage of 1974. Credit unions had been growing fast even in the early 1970s, but until 1974 they were still a blue-collar cooperative movement. They had taken root among the working-class savers of nineteenth-century Europe before crossing to America with the surge of immigration.

Clientele. Now the CUs are attracting the deposits and business of the affluent. Often run with unpaid volunteer clerical help and enjoying nonprofit tax status, the CUs can pay their member-depositors more and charge their member-borrowers less than commercial institutions do on equivalent transactions.

And CU people have a sharper appreciation of the value of money. Henneges of CUNA says those state-chartered CUs make mortgages at interest rates ½% to ¾% below the local S&L rate. Furthermore, state CUs charge no prepayment penalties.

The federal enabling legislation would make that practice mandatory for federally chartered CUs.

Bigger mortgages. The result of

these CU practices is that there are indications-exact data are lacking-that the average home loan taken out by members of state-chartered CUs has gotten much larger. Down in the neighborhood of \$15,000 in 1971, it is now more often up around \$40,000. And big CUs in states like Texas and Rhode Island are making a lot of mortgage loans. One \$190-million CU in San Antonio proved to be making 8% of all the loans in that city's multiple-listing service for Realtors.

But Congress isn't going to let federal CUs forget their blue-collar origins. Capitol Hill's legislation sets a ceiling on the price of the house that CUs finance, limiting it to 150% of the average house price in the local region.

Participation mortgaging. Henneges sees an avenue for a gradual expansion of participation mortgaging by CUs. "Down the road," he says, "a certain number of credit unions will develop participation packages." That is, the CU will originate groups of loans and share out the financing with banks or thrift institutions that have spare funds. This sharing will be an important leveraging factor, since CUs nationally have only \$43 billion in assets compared to the \$1 trillion of the commercial banks. -STAN WILSON

> McGraw-Hill World News, Washington

Smoke Booklet

A pamphlet from the National Bureau of Standards gives guidance to builders and homeowners thinking about buying smoke detectors. Titled "Smoke Detectors . . . What They Are and How They Work," this booklet answers the most commonly asked questions about selection and placement of the two types of detectors—ionization chamber and photoelectric. It also notes that the tiny amount of radioactive material in an ionization detector poses no hazard.

In 1972 only 50,000 smoke detectors were sold for residential use; last year sales reached 8 million. Some local governments have required smoke detectors in all new homes and apart-

For the free booklet, write Detectors, Consumer Information Center, Pueblo, Colo. 81009.



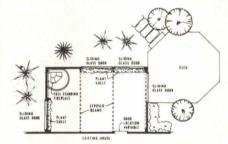
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PPG: a Concern for the Future





Circle 23 on reader service card

Will success spoil Ginnie Mae?

That's the most pressing question facing John Dalton, the Texas investment banker Jimmy Carter has named as president of the Government National Mortgage Assn., popularly known as Ginnie Mae. Dalton means to impose discipline upon a market that has grown to be too successful and too big to avoid a rash of speculative fever.

Not that Dalton wants to upset Ginnie Mae's winning formula. Since 1971 the agency's sales of mortgage-backed securities have climbed to \$40 billion. Wall Street has taken to Ginnie Mae's pass-throughs, as they are called, and has made this the fastest growing market in government-agency securities.

The carefree security. Last year alone, \$13.7 billion in new Ginnie Maes were sold. The securities represent participation shares in pools of FHA-VA mortgages, and they "pass through" a payment of principal and interest to the investor every month. All the mortgage servicing is done by mortgage bankers who originated the loans for the pool, so the investor's troubles are minimal.

The mortgage bankers, in turn, can free their initial funds and put them back into other mortgages.

The Ginnie Mae pools have helped make up for the shortage left in the secondary mortgage market when life insurance companies left it. Some 30% of last year's new Ginnie Mae issues were bought by pension funds and other nontraditional sources of mortgage money. Dalton wants to raise that percentage even higher.

Red lights. There's a catch, however. Ginnie Maes are selling so fast that they are beginning to worry observers of the largely unregulated market. Secondary trading in the securities is almost dizzying-\$500 million a day in the estimate of Dalton's predecessor, David deWilde, and \$100 billion a year according to Paul Leonard, a dealer with the Wall Street investment banking firm of A. G. Becker and president of the Ginnie Mae Dealers Assn.

Winters Government Securities, a relatively obscure Ginnie Mae dealer based in Fort Lauderdale, Fla., closed up shop in May. Securities buyers had failed to pay for around \$2 million worth of GNMA certificates. Winters reportedly owed around \$1.5 million to three New York City securities dealers and another \$500,000 to Chase Manhattan Bank.

There are also reports of mortgage men speculating in Ginnie Mae securities themselves. The advent of trading in Ginnie Mae futures on the Chicago Board of Trade has increased fears of even wider speculation.

Double guaranty. Ginnie Maes now make up Chicago's fastest-growing futures market, just as they make up the fastest agency security market on Wall Street. Investor confidence is understandable, for the mortgages in the back-up pool are guaranteed by the Federal Housing Administration or the Veterans Administration, and the securities themselves carry the full-faithand-credit guaranty of Ginnie Mae.

But some experts fear that the guaranties may be making people careless. Explains deWilde:

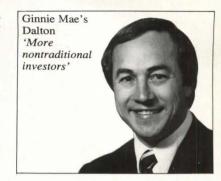
"The market is getting very complicated. A lot of new people are being drawn into it, not all with the necessary capital and know-how. They overcommit themselves and may be unable or unwilling to deliver [the securities they have sold]. It is vital to know the people you are dealing with, especially on futures delivery.

Failure to deliver, says Steven Shephard, past president of the Ginnie Mae Dealers Assn. and a dealer with Wall Street's Paine Webber Jackson & Curtis, "is a threat to the aura [of success] surrounding the Ginnie Mae market." Such failure, he thinks, might trigger a flight of big investment money.

Speculation danger. Dealers in New York City are inclined to suggest that the problem is speculation, which usually originates with the highlyleveraged mortgage bankers.

"Ginnie Mae," says one source, "should let them sell securities only up to a certain ratio to their capital plus existing portfolio of loans. They wouldn't like that because it's growthcontrolling. But if a large mortgage banker got into trouble, it would mean trouble for some major Wall Street firms."

The Mortgage Bankers Association's headquarters in Washington are not too eager for such a limitation. Said



one official source: "Everyone we sell to is regulated; why should we be?"

Dalton and his staff are reviewing the financial analysis of mortgage-banker issuers of Ginnie Maes with an eye to more standardization. They also plan to probe the auditing standards of pool issuers. Dalton sees a need for capital requirements for mortgage bankers and

"There could be some safeguards imposed by us here [rather than by the trade associations]."

Industry sources have disclosed that government-securities dealers have now been warned by the Treasury, the SEC and the Federal Reserve Bank of New York that they may face federal regulation of credit extended to customers in Ginnie Mae trading if the dealers don't start policing themselves.

New plans. Last year's \$13.7 billion in Ginnie Mae securities gobbled up a full 80% of all FHA and VA mortgages written in 1976. The Ginnie Mae market may soon bump a ceiling imposed by the slow production of FHA loans. The FHA has been in a slump since the mortgage-subsidy scandals of the early '70s, but the Carter housing team still talks about revitalizing the agency. They also talk about changing its mission, however, and the old FHA may be gone forever.

Explains Dalton: "We want to attract more nontraditional investors. This is an argument for adding conventional mortgages to the securities program."

Yet, he adds, conventionals would have to be structured so the government could insure or guarantee the pool security to the investor (although not the underlying loans).

Dalton has promised to stay for a full presidential term, and he thinks there is quite a bit more Ginnie Mae can do to fulfill its mission of bringing nontraditional sources of capital into the mort--STAN WILSON gage market.

> McGraw-Hill World News, Washington

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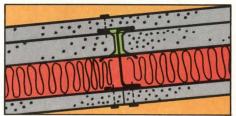
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THAT MAKE THE **DIFFERENCE!**

New money for conventional building

The Bank of America has begun selling a security backed by unguaranteed conventional home mortgages, an action that could lead the way to broad commercial bank support for conventional-mortgage builders.

The bank says that to its knowledge the \$150-million issue will be the first public offering by a private mortgage lender of ownership interests in a pool of conventional single-family loans.

Such loans have never been standardized, and they have posed technical problems for anyone seeking to pool them and sell pool shares to investors. And, of course, they do not have the FHA-VA loan guaranty.

In recent years, however, the Federal Home Mortgage Corp. (Freddy Mac) has sold \$4 billion in passthrough certificates based on conventionals. But Freddy Mac is regarded by investors in virtually the same category as a full-faith-and-credit government agency.

Aid to builders. The bank's move could have wide significance for builders. A successful sale could establish guidelines for attracting large amounts of new investment capital into conventionally financed residential building. It could also take commercial banks and mortgage dealers into a field now dominated by the savings and loan associations.

"Once the ice is broken, there will be others in line," a Bank of America spokesman said.

The American Bankers Assn. has commissioned a study to define and overcome impediments faced by commercial banks in the secondary mortgage market and to look for new mortgage instruments. In fact, mortgage securities backed by conventionals were one of the instruments the study was supposed to canvass before the Bank of America moved.

"We're delighted they beat us to it," says an ABA spokesman.

Ginnie Mae pattern. The Bank of America researched its mortgage-sale program for two years and then persuaded the Federal Reserve to give its blessing. "That took some doing," a bank spokesman said.

The securities went on sale in July. The 1,500 certificates, each for \$100,-000, were patterned after the hugely successful mortgage-backed securities sold by the Government National Mortgage Assn. (Ginnie Mae).

The bank has \$61 billion in assets. The certificates will not be a debt obligation of the bank, but the mortgage pool will be privately insured. Proceeds of the sale will be used by the bank to originate new conventional residential mortgages. _S.W.

Savings banks elect Klaman

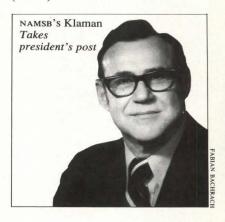
Saul B. Klaman has been elected president of the National Association of Mutual Savings Banks to succeed Grover W. Ensley, who has retired.

Klaman, a widely known and popular authority on mortgage finance, has been the association's executive vice president since last year. He joined the staff as an economist in 1958.

Klaman has served on several Presidential task forces and has been an adviser to the Federal Housing Administration, Federal Home Loan Bank Board, the President's Council of Economic Advisors and the Department of Commerce. He is a past president of the National Association of Business **Economists**

The association, based in New York City, has 475 member institutions in the 18 states that permit savings banks. They had \$116.8 billion in deposits in 1976.

The association's chairman is Norwick Goodspeed, president of the People's Savings Bank-Bridgeport (Conn.).



Rogg rides again—to spur investment in cities

Nat Rogg, who left the National Association of Home Builders a few months back, is hip-deep in a new project for the U.S. League of Savings Associations—and showing no signs of opting for early retirement at age 63. The S&Ls have given him six months to come up with a plan to expand investment in inner-city housing.

The S&Ls, Rogg says, have a tremendous stake in the inner city, particularly with a Democratic administration that puts rehabbing of housing and restoration of neighborhoods atop its list of housing goals. Rogg believes

that most S&L loan officers don't know how to make such loans and that most of them can make "\$25 million a month in safe and secure mortgage loans without leaving their desks.'

Off on tour. The league leaders have been told, Rogg says, "that they had better get into this."

So Rogg has begun work by visiting S&Ls, inner-city rehabbers and neighborhood preservation groups in Chicago, Cincinnati and the District of Columbia (where he lives in a 90-year old row house he had restored).

He already has reached one conclu-

sion: "No big federal program is going to do it."

Bank Board job. Rogg told Lew Sichelman of the Washington Star that he had been in contention for the chairmanship of the Federal Home Loan Bank Board.

"I would have been interested if it had been offered, but it wasn't," Rogg was quoted. "I would have been an ideal choice, but that had to be apparent to them. I'm not interested in soliciting help from political friends to get a job-not if it means making commitments to get it." —D.C.



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Court tells town: Don't abuse builder

At first glance it was only a judicial slap on the wrist. But a decision by Pennsylvania's Commonwealth Court against the Treddyffrin Township supervisors should cheer builders across the country.

The appellate tribunal in Harrisburg reprimanded the supervisors for trying to thwart, through extra-legal means, development of an 865-acre tract owned by the Fox Companies of Bala-Cynwyd, a residential developer. Judge James C. Crumlish Jr. wrote the opinion.*

The ruling ends a seven-year dispute that began after Fox purchased the Treddyffrin acreage in 1970 for a single and multifamily development to be known as Chesterbrook.

Impact. James Hovey, senior vice president of the company headed by Richard Fox, says that "builders everywhere should be happy, very happy. It's a precedent-setting decision in Pennsylvania. People will be talking about it and referring to it for ten years."

Hovey claims the decision "should show zoning boards and other political bodies that they can't rewrite the laws as they go along."

But the board of supervisors didn't exactly attempt to "rewrite the laws." What the board did attempt, according to Judge Crumlish's opinion, was to circumvent them with roadblocks.

Last December, after the state supreme court had refused to hear an appeal by the board, the Commonwealth Court upheld an earlier ruling favoring Fox. While appearing to abide by the court's decision, Judge Crumlish said, the board began imposing "unlawful" fees on Fox.

Double or nothing. The township supervisors hit Fox with a \$22,000 reapplication fee and several other charges. As for the \$22,000 fee, the judges' panel revealed that Fox paid "more than twice as much in subdivision fees as all other subdivision applicants in Treddyffrin combined."

When the Harrisburg appeals court totaled all extra fees, it said the developer would have to pay at least \$338,-525 to file various development applications. That, the judges said, did not

*Raum vs. Supervisors of Treddyffrin Township, Pennsylvania Commonwealth Court. Case Nos. 1322, 1323 and 1386 C.D. 1974, filed Dec. 22, 1976, Decision March 1, 1977. even include additional fees for construction plans, subdivision agreements, escrow agreements, recording of deeds of dedication, permits for storm drainage and water courses and still more fees for "all inspections and tests."

The board used other ploys. One, according to Judge Crumlish, involved

Developer Fox A building-block breakthrough





Senior V.P. Hovey 'Builders should be happy'

hiring the township assistant manager to "review" Fox's improvement plans and billing Fox for the official's time.

Penalty. The official, the judges' opinion stated, "spent four or five hours a week for 10 or 11 weeks" reviewing the Fox plans. The court claimed the task could have been completed in 14 hours. For his effort—at \$488.89 per hour—the township official earned a Fox paycheck that was "more than his yearly salary."

The Commonwealth Court ordered the township to refund the "unlawful" fees paid by Fox. In addition to removing Chesterbrook from limbo, the opinion declared: "A township cannot lawfully reject subdivision plans unless the plans actually violate a provision of a statute or ordinance."

Slow growth. The Crumlish opinion did make a bow to the slow-growth movement.

"This court," the opinion said, "is not unaware of the controversies plaguing local municipalities which . . . must deal with certain developers who would prey on the lack of local sophistication to impose shoddy development on the municipality for increased profit to themselves."

But the opinion added: "We have noticed an ever-increasing undercurrent of sentiment in local municipalities which has as its basis the rejection of further development. . . . regardless of technical or social merit. This nogrowth, status quo thinking surfaces in disputes like this one."

The long fight. It looked like clear sailing for Fox when it bought the Chesterbrook acreage in 1970. By 1972, the supervisors approved development plans.

But then a Committee to Reclaim Chesterbrook (CORC) complained to the township zoning hearing board.

The board upheld the development plans, but the committee went to Chester Common Pleas Court. The county court deliberated 15 months and then overturned the zoning.

Fox and the supervisors appealed, and in July 1975, Commonwealth Court upheld the original zoning.

But in the fall, the situation clouded anew. An election altered the board of supervisors' composition. Two newly elected supervisors were CORC members. With two pro-corc members who were re-elected, the anti-Fox forces won the balance of power on the sevenmember board.

So, after losing in the appellate court, the CORC-joined now by the supervisors—appealed to the state supreme court. It refused the case, sending it back to the Commonwealth Court. That tribunal reiterated its prior ruling and followed in the spring with its reprimand of the supervisors.

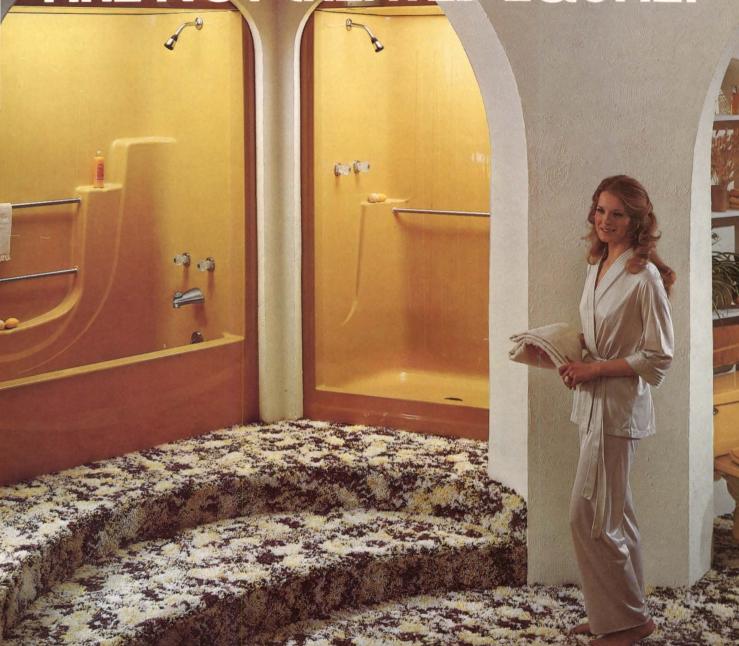
The board is not expected to appeal. The project. Slated for completion by 1986, Chesterbrook projects 177 single-family houses at \$90-\$110,000; some 1,590 garden-apartment condos and 765 mid-rise units. -Tom ALLEN

FHA panel named

For guidance on the future of the Federal Housing Administration, Housing Secretary Patricia Harris has turned to one of the oldest FHA hands around-Robert C. Weaver, who ran the FHA during the Kennedy administration and then became the first secretary of the new department of Housing and Urban Development in January 1966.

Weaver, now director of the Urban Research Center at Hunter College in New York City, heads a 30-member task force on the future of FHA. The panel was appointed by the Secretary to represent just about every interest group that would like to have something to say about housing. -D.L.





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Kaufman and Broad taps Levenstein

Eli Broad relinquishes one hat. Two years after his return to Kaufman and Broad as chairman and president, chief executive and chief operating officer, Broad gives his presidential and chief operating officer's chapeau to Executive Vice President Robert Leven-

Levenstein, 50, joined the big Los Angeles-based homebuilder in April 1976 from Philips Industries of Dayton, Ohio. He had been the mobilehome company's president.

At K&B's annual meeting, where the Levenstein appointment is announced, Broad predicts earnings for the second quarter (May 31) will run "significantly ahead" of the restated \$2.7 million, or 18 cents a share, in the same period last year.

U.S. Home Corp. shifts execs. Robert J. Strudler, former chairman of the interim operating committee and legal affairs vice president, becomes a senior vice president for operations. So does Sidney Stephenson, who was a senior vice president of Homecraft Corp. before it was acquired by U.S. Home. Frederick F. Fisher steps up from vice president for finance and treasurer to senior vice president and treasurer. And two Homecraft alumnae-Virginia Stead and Rita Osfield-share new posts as vice presidents for management development.

Leadership Housing of Tamarac, Fla., gets a new chairman, Robert B. Friedman. A former executive vice president of the L.B. Nelson Co. of Menlo Park, Calif., Friedman takes over Leadership from H. M. Lasky, who resigns. Lasky, along with Leadership's ex-president, Lon B. Rubin, bought several of the company's Florida and Texas properties after Lasky's resignation. The two also form HLR Inc. to build in Fort Lauderdale.

Leisure Technology Northeast Inc. of Lakewood, N.J.-a Leisure Technology Corp. subsidiary-forms a consumer affairs department headed by a corporate vice president for consumer affairs, Fred Whitfield. He had managed LeisureTowne in Vincentown, N.J. Richard W. O'Neill, former editor of HOUSE & HOME, is named a director of the parent company. O'Neill directs the Housing Advisory Council Ltd., a consulting service based in Lakeville, Conn., and publishes The O'Neill Letter, a fortnightly commenLENDERS: Woody Kingman, former president of the Government National Mortgage Assn. (Ginnie Mae) and lately an executive vice president of Crocker National Bank in San Francisco, agrees to manage the corruption-plagued Teamsters Union's principal pension fund. The Crocker Bank and Kingman were tapped as the end result of intricate negotiations between the Department of Labor, Internal Revenue Service and the Team-

In Miami Beach, Fla., David Blumberg, 52, is named chairman of ailing First Mortgage Investors. Blumberg, who continues as president of Planned Development Corp. of Miami, succeeds the REIT's founder, Jack R. Courshon, who remains a trustee.

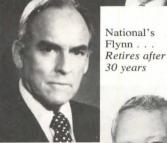
> K&B's Levenstein Into president's chair





U.S. Home's Stephenson . . . Rejoins Homecraft boss

and Fisher Takes a step upward



. . and Shaw Holds National Homes





A veteran passes from the lending scene. After 50 years with New York Life's real estate and mortgage loan department—the last four as senior vice president-William C. Lutz retires.

Buckeye Federal S&L of Columbus, Ohio, names David S. Cook to succeed its retiring chief executive, William S. Guthrie, 65, who retains his post as chairman. Cook, a Columbus real estate consultant employed by New York's Chemical Bank, also replaces President Ralph C. Kunze, who resigns. Stephen T. Guthrie, 37, the chairman's son, resigns next month as senior vice president.

In Clearwater, Fla., Hubbard Sherry becomes executive vice president of production and sales-a new post-for Mortgage Investment Securities Inc. He was senior vice president of King's Way Mortgage Co. of Coral

Larson Mortgage of Plainfield, N.J., gets a new president. Michael Young, vice president for five years, fills the post, which has been vacant for some

PREFABBERS: National Homes changes the guard at headquarters in Lafayette, Ind. President James J. Shaw succeeds the retiring Frank P. Flynn as chairman and chief executive. David Price, 37, president of National Homes Manufacturing Co. for five years, and the son of National's former chairman and co-founder, Jim Price, replaces Shaw.

ASSOCIATIONS: James J. Heagerty and Harold W. Greenwood Jr. are nominated as president and vice president of the National S&L League for 1977-78. Heagerty is president of First City Federal S&L of Bradenton, Fla. and Greenwood is chairman of Midwest Federal S&L of Minneapolis.

The Mortgage Bankers Association of New York elects Frank J. Finan 1977-78 president. He's president of his own Manhattan real estate firm.

William J. Hemphill is elected president of the Mortgage Insurance Companies of America. He is president of United Guaranty Corp. of Greensboro, N.C.

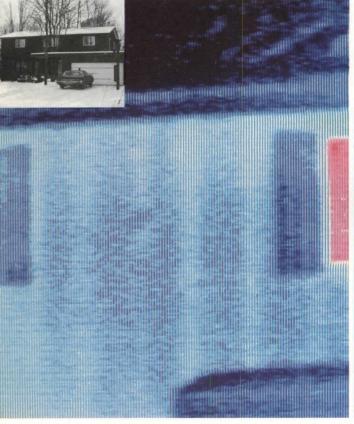
L. C. (Bud) Merta is re-elected chairman of the Manufactured Housing Institute. Merta is president of Moduline International of Chehalis, Wash.

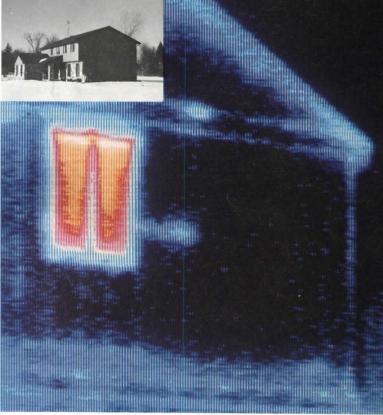
BATTS CAN'T DO THE WHOLE INSULATING JOB.

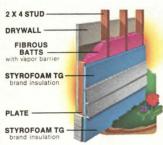
Infrared photos prove STYROFOAM* TG brand insulating sheathing cuts heat loss dramatically.

Heat loss (light areas) evident in home insulated with fibrous batts alone.

Heat retention (dark areas) seen in home insulated with one-inch STYROFOAM TG brand insulation and batts.







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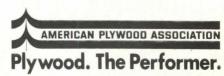
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Redesign builds security into this low-income project

Three years ago Cincinnati's Millvale public housing project had a high crime rate and a vacancy problem.

"People just didn't want to live there," says Henry Stefanik, director of the Cincinnati Metropolitan Housing Authority, which runs the 600-unit project.

Today Millvale's crime rate is substantially lower and the project is filled. The reason: a gradual renovation program that has built in actual or perceived security.

'Pride in homes.' About 75% of the 68-acre project has been upgraded so far (work has been done in phases by local contractors).

"We included the usual security features-solid wood doors, window locks, mail slots in the wall," says architect Dick Glaser of Glaser & Meyers. "But we also made improvements that indirectly foster security and give residents pride in their homes."

Exteriors of the barracks-like, 21-

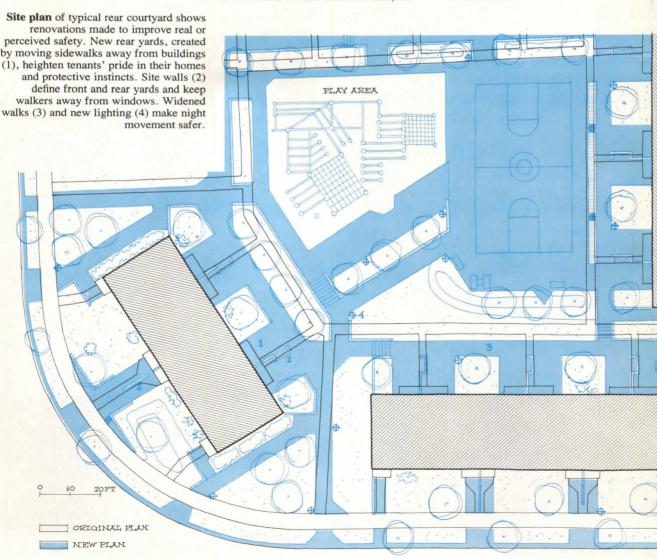
year-old buildings have been converted to an architectural style that suggests townhouses. Gable roofs have replaced flat roofs. Wing walls have been added to define each apartment visually. Facades have been cleaned up and, in some cases, resurfaced.

Site walls. Front and rear yards have been created by moving sidewalks away from the buildings and by adding low brick walls. In front, these walls jut from the buildings and separate the yards from entry sidewalks; in back, they curve around concrete patios.

Communal space has been improved with new sitting areas, playgrounds, sidewalks, landscaping and outdoor lighting.

Recent research shows that this renovation reduced crime. The researchers-William Brill & Associates of Annapolis, Md.—sampled 22% of the households in Millvale's renovated and unrenovated sections.

Some results:



- · Burglary attempts in the renovated section were 75% fewer than in the unrenovated area in the last year; 36% of the attempts succeeded in the unrenovated area, none in the renovated buildings.
- · Vandalism in the renovated section was 67% lower.
- · Fears of assault in the vicinity of an apartment was only half as prevalent among households in the renovated
- And both groups agreed that walking at night and using communal areas were significantly safer in the renovated section.

The renovation is funded by HUD's Modernization and Target Projects programs. To date, \$4.2 million has been spent as follows:

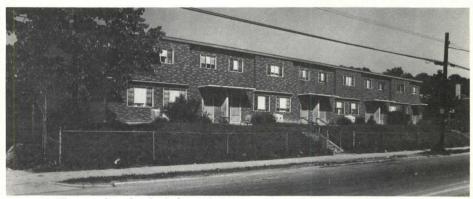
- \$1.7 million for exterior building renovation.
- \$538,000 for site walls, sidewalks and patios.
 - \$871,000 for outdoor lighting and

gas and sewer lines.

- \$154,000 for recreational facili-
 - \$107,000 for landscaping.
- \$820,000 to regrade the site for better drainage.

Construction costs have averaged \$11 a sq. ft., or \$10,200 a unit.

-J.G.C.



Barracks-like exterior of units before rehab (photo shows front view) contributed to project's high crime and vacancy rates.



Townhouse-like facade of units after renovation (photo shows entry courtyard) helped reduce crime and fill up apartments.

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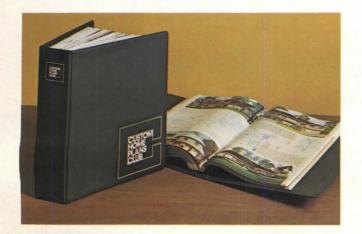
Multi-level and Hillside Homes—split level, split foyer, others

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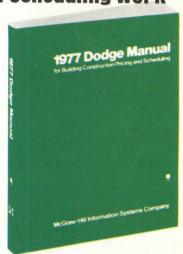
Club working drawings include: (1) Floor Elevations, (2) Complete Framing Plans, (3) Wall Sections, (4) Floor Plans, (5) Basement/Foundation Plans, (6) Roof Plan, (7) Plot Plan, (8) Kitchen Cabinet Details, (9) Fireplace & Built-in Details, (10) Specification and Contract Booklet.

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The General Electric Extended Range PTAC Heat Pump offers significant savings on heating bills when compared to electric resistance heating.

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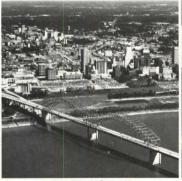
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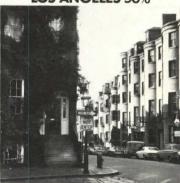
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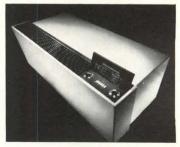
Zoneline III® Extended Range heat pump, because of its electrical energy conservation, ease of installation, simple control features and appearance, provides overall economy for room-by-room or zone control in motels, apartments, office buildings, nursing homes, hospitals and for modernization projects.

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WHAT'S SELLING

In suburban San Francisco

Recreation package lures well-to-do buyers

The package includes a nine-hole golf course, a dozen tennis courts, swimming pools and a clubhouse with restaurant and bar. Along with a house-maintenance agreement, it's offered to buyers at Moraga Country Club, east of San Francisco. And it has proved to have a strong appeal for local movedowns.

The project's first two phases sold well. The first phase's 83 units were all reserved prior to groundbreaking. The second phase—advertised as a chance to "take your vacation at home"—saw 127 units sold in 18 months. What's more, without ads, there was a 300-

name waiting list for the third phase's 110 units well in advance of the June opening.

The price is high—from \$102,000 for a 1,600-sq.-ft. attached unit to \$175,000 for a 2,680-sq.-ft. detached house—but Moraga's buyers can afford it. They're affluent empty nesters or couples with teenage children, and they're moving down from bigger, even more expensive houses nearby.

"Instead of maintaining their lawns, our buyers want to go out and play golf," says Clark Wallace, president of Moraga Enterprises Inc. So even though ownership is fee-simple, there's

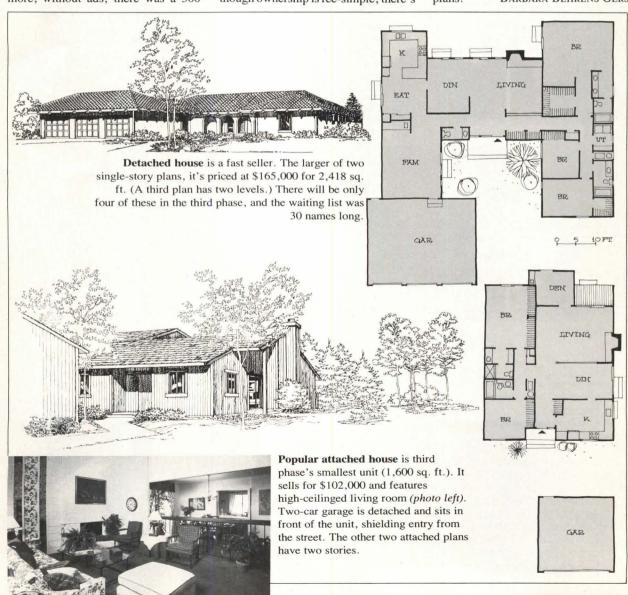
a homeowners' association that takes care of common areas and house exteriors. (The \$90-a-month dues also cover access to the recreation facilities.)

According to Wallace, the sales pace has been about equal for the project's attached and detached houses. (Areas of each are interspersed on the 200-acre site.)

Buyers have shown a preference for the one-story plans of each type, however. They're spacious enough to accommodate furniture accumulated in a previous, larger residence, yet, without stairways, they're easy to care for and get around in—an important consideration for a couple looking toward retirement (see plans below).

When built out, Moraga Country Club will have 521 units—half and half attached and detached. Phases four and five will feature a series of hillside plans.

—BARBARA BEHRENS GERS



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A full line of top-quality freestanding and builtin appliances from Frigidaire is one of the ways your Frigidaire Builder Suppliers can make your remodeling jobs that much easier for you.

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You'll be as proud to offer Frigidaire appliances as we are to build them.

Buyers meet their neighbors and Centex learns all about them



Buyers and builders adjust floor plans over cocktails. Architect Wheatley (middle) listens and Manager Hobbs points as buyers describe desired changes.

Unlike most meet-your-neighbor parties, this one didn't take place a few weeks before move-in. In fact, the party Centex Homes of Washington, D.C. gave for its Langley Oaks buyers took place even before the first house was begun and the prices set.

The "neighbors" were prospects who had placed \$1,000 refundable deposits on houses that were still being designed.

Results. The party accomplished three results, says Ken Schwartz, who heads the Washington division.

First, it gave the company data about the prospective buyers that would normally have taken weeks of follow-up to

Second, it gave the buyers a chance to tell the company specifically what they liked and disliked about the proposed plans while there was still time to change them.

And third, it offered a chance for buyers to meet the people who will be in charge of the project: Architect David Wheatley, Project Manager Wayne Hobbs, and Schwartz himself.

"This way, if they have any problems, they won't feel like they're dealing with an impersonal company," says Schwartz. "We feel it's a good public relations approach."

Public relations. The public relations is also valuable for other reasons: Centex, one of the nation's largest homebuilders with 5,758 units delivered in 1976, is not well known in the Washington area. It has been building there for only a couple of years.

Further, since delivery on the Langley Oaks homes will not begin until December, it is important that buyers be made to feel involved with the project in order to sustain their interest.

Luxury homes. The 308-home sub-

division is in McLean, Va., one of Washington's most prestigious locations. The luxurious homes, ranging from 2,450 to 3,400 sq. ft., will be priced from \$127,000 to \$145,000. It's a departure for Centex, which normally builds moderately priced homes.

"That's why we were so interested in knowing exactly what was important to our buyers and what they could live without," says Schwartz. "Even at those prices, we don't want to get into custom building; we're approaching Langley Oaks as a tract project with the efficiencies and cost savings that standardization provides."

Among the changes that resulted from the party: a compartmentalized bath, an enclosed dressing area, an enlarged dining room, a different entry arrangement and crown moldings added in living and dining rooms.

Some new options also resulted:

- · Hardwood floors. The company had not planned to offer these, but nearly all the buyers wanted them.
- Shake roofs. Another overwhelming favorite that will be offered as an option to hold down base prices.
 - Fireplaces. All of the plans al-

ready have one fireplace, but they will also be offered in master bedrooms, dens and family rooms where possible.

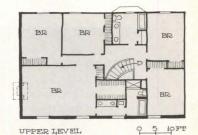
Survey. Thirty of the 32 buyers who held reservations on specific lots came to the party, held at the National Housing Center. Their admission ticket: a five-page survey that showed what kinds of homes they lived in, how much shopping they had done, how they felt about different floor plans, products and finishing materials, and even what kind of magazines they read.

"We didn't ask them to sign it, but many did," says Schwartz. "Everyone took the time to fill out the survey in detail."

Interest in Langley Oaks is so intense that many buyers had sought out Centex the moment the construction trailer appeared, so the 30 couples who attended the party felt like an elite group. They were so well aware of their privileged position, in fact, that the proceedings took on a faintly California overtone as some of the buyers half-joked about selling their options.

Centex stopped taking deposits when it reached 100 and is now merely placing names on a waiting list. —N.G.





Largest plan has 3,400 sq. ft. and sells for \$145,000. Four plans are being offered, each in a variety of elevations.

"We wanted the best appliances in our apartments. That's why we chose Kitchen Aid dishwashers."

"The luxury apartments here at Parkview Arms, in Bexley, Ohio, rent for \$595.00 a month. When you're asking tenants to pay this much, they expect the best of everything,"

explained manager, Don Johnston.
That's why the builder/owner, Schottenstein Investments, refused to settle for anything less than the top-of-the-line KitchenAid Superba when it came to selecting the dishwashers.

"There's no question that the KitchenAid dishwasher is a definite



factor in renting the apartments," Mr. Johnston continued. "Many of the people who rent here had KitchenAid dishwashers in their homes, so they know they're quality built, reliable, and aren't going to give them any problems."

Let KitchenAid dishwashers help make your apartments easier to rent,

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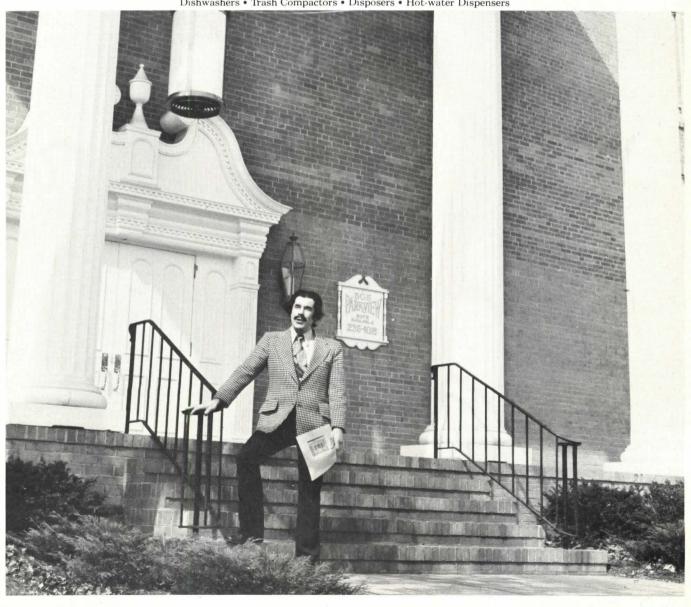
Call your KitchenAid distributor today about his builder plan. Or write KitchenAid, Department 7DS-7, Hobart Corporation, Troy, Ohio 45374.

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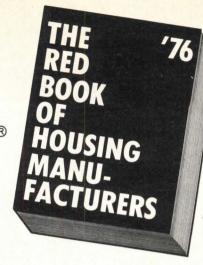
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Pioneer Russell Grove saves 25% on home heating using Plen-Wood principle.

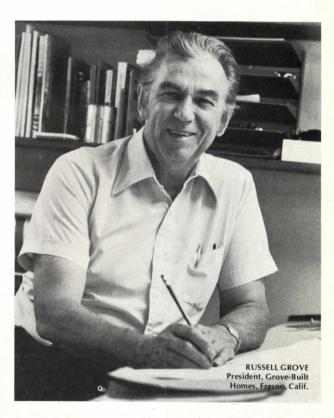
Homes oriented to energy-saving are old hat to California builder Russell Grove. For 15 years he's been using the underfloor plenum for heating/cooling, the principle of the Plen-Wood system in the 1970's.

The Plen-Wood system is based on a simple concept: the entire underfloor crawlspace is used as an insulated, air-tight plenum chamber for distribution of warm or cool air through floor registers. This reduces or eliminates furnace

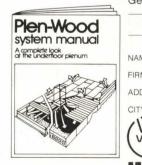
ducts, and provides even floor-toceiling temperatures throughout the house.

"We've built about 500 plenum-style homes," Mr. Grove notes, "and we see savings of about 25% on the heating cycle, with cooling efficiency just as good as the more typical systems."

But energy-saving is just part of the story. Depending upon their location, some builders have found the wood-joisted Plen-Wood system can reduce the cost of a standard-size home by as much as \$330 over concrete slab construction.



Get complete details on the Plen-Wood system. Send the coupon or write WWPA. Spend a few minutes now, and you'll save a lot of money later.

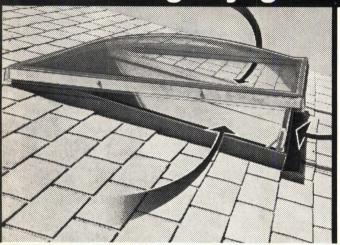


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Builder Levitt 'He transformed industry'

Does anyone remember Levittown?

н&н: "18 in new housing hall of fame" [H&H, May] was ludicrous.

How any professional group or individual familiar with community development and shelter construction could overlook William J. Levitt when compiling a list of "leaders" who made "significant and lasting contributions to U.S. housing" covering the decade of the 1940's is beyond my ken!

Except for the man who invented nails, no one has had a greater effect on homebuilding in America than Bill Levitt. He transformed what was a local, behind-the-times trade into a major, modern shelter industry by developing and perfecting production methods which were copied by virtually every builder in the United States. In the process he constructed more than 130,000 homes and is ranked as one of the world's largest shelter producers and land developers. He became the industry's leader and, in point of fact, helped found the NAHB.

Another irony is that on April 28 the National Academy of Sciences and their affiliate, the Building Research Advisory Board, honored Bill Levitt as one of a group of distinguished individuals who have "contributed most to building progress over the past quarter century."

EDWARD CORTESE, vice president Int'l Construction Co. Greenvale, N.Y.

Down on do-it-yourself

H&H: We write in response to "Doing your own ads" [H&H, April].

Why is it a professional builder will hire an architect, subcontractors and an interior designer to decorate his models, but that same builder thinks he can save a few dollars by handling the advertising himself?

In the article a number of basic, valid premises are presented. However, a builder could do all that is recommended and still see his advertising falter

Market research, design, copywriting and even production of real estate ads take talent. A good agency has talented experienced people whose expertise a successful developer will tap rather than circumvent.

> STEVE SLOANE CARY HASKIN Dana Enterprises Sherman Oaks, Calif.

"Price" is right

н&н: Your editorial, "How to price yourself for a fall" [H&H, May], puts in excellent perspective dangers that could be ahead of us. I commend you for your position.

CLAIR E. HUGH Bellevue, Wash.

Gary Morgan takes Coast builder post

Gary L. Morgan has been named chief executive of the Associated Building Industry of Northern California, a post vacated in January when William T. Leonard resigned to become a vice president of the Hofmann Co., a builder in Concord, Calif. [H&H, Jan.].

Morgan, now based at ABI headquarters in Hayward, had been president of the HBA of Tennessee. His title with the ABI will be changed to presi-

Morgan says he intends to double the ABI membership in 18 months. The association now has three regional divisions with 900 builders.



ABI's Morgan Tennessee to California

"Carrier's CLIC computer saved us half a ton of air conditioning in every one of our 48 new apartments."

When the time came to expand Bear Grounds Apartments, the owners and builders, Ernest and Theo Khoury, came to Waco Systems, Inc., a Carrier Dealer in Waco, Texas.

Ernest Khoury said, "The dealer fed our plans into his CLIC computer, which gave us our loads

back. He showed us we only needed a 12,000 Btu system to do the job in a one-bedroom apartment instead of 18,000 Btu. And the computer showed we could use 18,000 Btu in the two-bedroom units, where everyone else wanted 22 to 24,000."

CLIC clicks.

The Khourys opened Bear Grounds in 1974 with 60 units, but without Carrier air conditioning. "This time," said Ernest, "we wanted to do better. And Carrier has always been synonymous with quality equipment."

That's when they discovered that the Carrier Load Information Center (CLIC) computer could save them 24 tons of air conditioning by matching the right Carrier systems to the cooling loads.



Theo (left) and Ernest Khoury are adding 36 two-bedroom and 12 one-bedroom units to Bear Grounds Apartments in Waco, Texas — air conditioning by Carrier.

CLIC precision means the Khourys will avoid the headaches so common with oversizing. (And you know what oversizing means — money spent up front *unnecessarily*.) Eliminating short cycles will improve humidity control and reliability. And the smaller capacity systems will reduce utility bills for Bear Grounds residents.

By sizing your next job with Carrier's CLIC computer, a Carrier dealer in your town can turn your specs into cost savings, energy savings, or both. To make CLIC click for you, just fill out and mail the handy reply card. Or write us: Carrier Air Conditioning, Carrier Parkway, Syracuse, New York 13201.



Build in Carrier quality at competitive costs.



A model home kitchen is usually the place where salesmen have to do the most selling. Simply because, to most people, it's still the important room. And if you're showing customers empty spaces where they expect to see sparkling new appliances, you could be making that sale a lot tougher. And that's expensive.

Hotpoint. Your single, dependable source.

Hotpoint is a single source supplier in every sense of the word. We make a full line of quality appliances and back them with nationwide service. Our appliances are built with the kind of convenience features today's buyers want - and are willing to pay for. And Hotpoint is a nationally advertised name. A name that can act like an extra salesman for you.

Quality appliances up and down the line.

Take Hotpoint ranges for instance. We make a whole range of them - free-standing, drop-ins and hi-low models, plus surface sections and single and double wall ovens in 24- and 27-inch styles. And you have a choice of conventional, continuous-cleaning or self-cleaning ovens. For the customer who wants the most modern way to cook, we also have a line of countertop microwave ovens that you can easily build into your kitchens.

Our refrigerators come in sizes and styles to fit any size family. Single door, top mount and side-by-side models—in capacities from 9.5 cu. ft. all the way up to a deluxe 24 cu. ft. food center with exterior Water'n Ice Service. Most Hotpoint models are no-frost, and have Power Saver switches.

Hotpoint dishwashers let you offer customers a lot of convenience. Quietly. That's because they're all sound insulated for Whisper-Clean® operation. And there are plenty of other features buyers will appreciate, too. Like Power Saver and Short Wash cycles on many models. And Dish & Potwasher cycles on two models as well.

No kitchen is fully equipped without a Hotpoint Trash Compactor and food waste disposer. Our trash



compactor handles the average weekly trash of a family of four in one neat carry-out bag. Our sound-insulated Disposall® food waste disposers grind up most scraps, and have stainless steel blades that resist corrosion.

Service Contracts: an added selling tool.

A Hotpoint Service Contract covering all the appliances in your kitchens is the ideal sales closer. It tells buyers you put their long-term satisfaction above immediate profit. And any service contract you buy begins after the Hotpoint warranty expires.

Service. A selling point, not a sore point.

It's called Customer Care® service—a network of

factory service centers in over 800 cities plus over 5,000 franchised service people across the country. This helps build buyer confidence and takes service problems off your shoulders.

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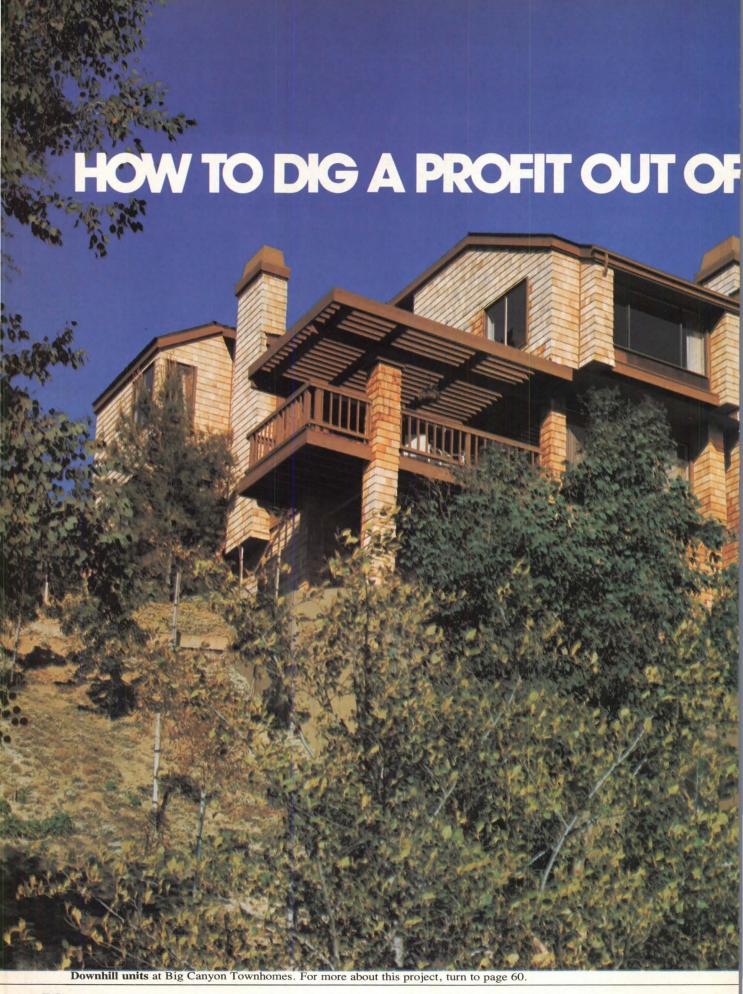
dealing with a single source supplier, including our kitchen/laundry design service, get in touch with your Hotpoint builder representative. He'll be glad to make your job a lot easier.

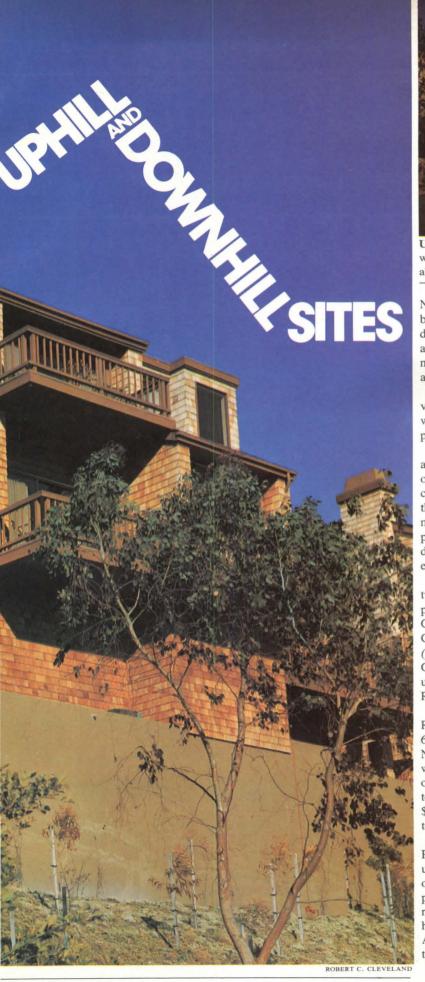


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Uphill units at Turtle Rock Glen Garden Homes, where there also are downhill units. For more about this project, see page 62.

Next time you're about to pass up a steep site because it's more difficult and expensive to develop, look again. If the land is cheap or in a good location, you may find enough marketing advantages to make the extra work and cost worthwhile.

The most obvious advantage is the potential view from a steep site—a natural amenity for which many buyers are willing to pay premium prices.

A less obvious but highly important advantage is the natural design and planning opportunities a steep site offers. Because units can be sited to conform with the natural slope, there's built-in protection against a monotonous project plan. Likewise, floor plans can be laid out so they step up and/or down with the terrain, providing highly exciting unit interiors.

Here and on the following four pages are two California projects that illustrate just those points. One is Big Canyon Townhomes in Big Canyon at Newport Beach, an Irvine Company community of 144 downhill units (photo left). The second is Turtle Rock Glen Garden Homes (photo above), a community of uphill and downhill attached houses in Turtle Rock, a section of Irvine city.

Big Canyon is a development of McLain Realty & Development Inc. Its first phase of 61 units opened last summer and sold out by November 1. The 83-unit second phase, which opened in mid-February, is also sold out. There are five plans ranging from 1,264 to 1,986 sq. ft. First-phase prices averaged \$110,000, the second ranged from \$108,400 to \$183,000.

Turtle Rock Glen is being built by Irvine Pacific Development Co. The first phase of 54 units was sold out from a waiting list when it opened last November. And there were 2,500 prospects waiting when sales for the remaining 104 units opened last month. The houses range from 1,704 to 2,472 sq. ft. Average prices in the first phase were \$87,500 to \$106,500.

—JUNE R. VOLLMAN

Big Canyon: downhill clusters above underground parking

"We had to go to underground garages to preserve our golf-course views and get the required density," says developer Bob Mc-Lain.

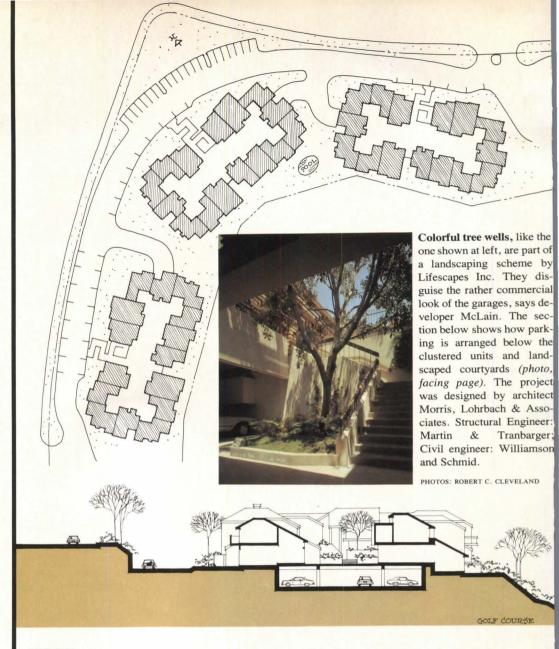
Each of the project's 17unit clusters (see partial site plan) sits above a garage that has two parking stalls per unit, four guest parking spaces and a carwash area. Owners walk out the garage door (photo right) and climb stairs to a landscaped courtyard (photo far right). It leads to individual unit entrances.

The parking cost about \$15 a foot to build, double what McLain had estimated. Some of the overrun was due to price increases that hit the building industry after construction had started. But the biggest problem, McLain says, was that the basic design for the parking-a new concept for a hillside townhouse project-required deeper footings, far more concrete and larger structural beams than had been expected.

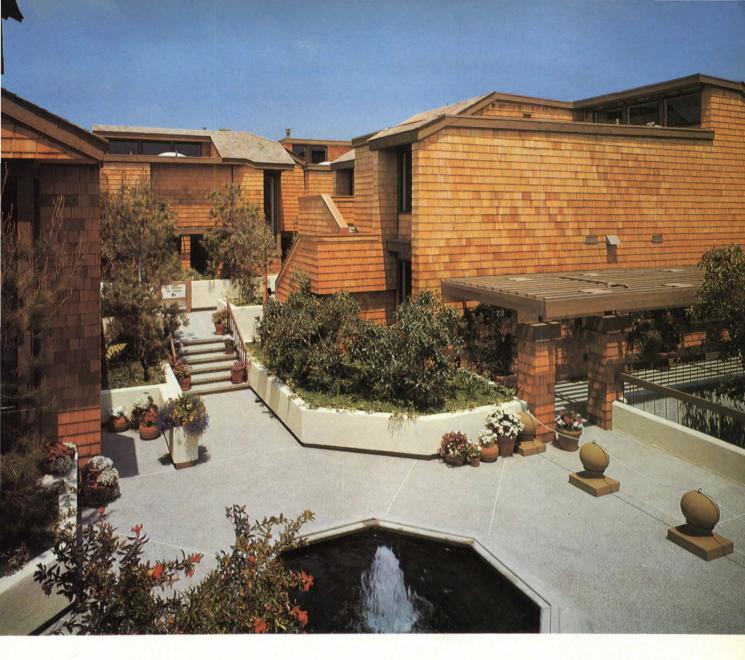
"And we had to put in an exhaust system, which we hadn't planned on," he says. Putting the parking underground added about 10% to the cost of each unit, according to McLain.

'We were concerned about trying this plan when we started," he says, "because buyers in this area are accustomed to private, attached garages.'

But buyer reaction was favorable: "They felt the aesthetic value of the scheme was worth the inconvenience of not having direct access to their units," McLain says.

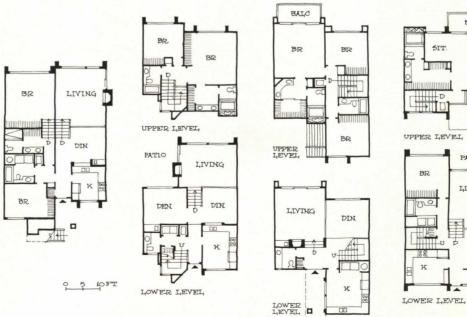






Distant views through windows in the photo at left are captured in the project's single-story plans by stepping major living areas down the hillside. The photo shows the living and dining rooms in the plan at near right. Saddleback Interiors was the decorator.

Varied floor plans in the project's multi-story plans (three are shown at far right) were designed to attract a broad-based market—empty nesters, young marrieds and mature couples. About 42% of the buyers previously lived in expensive Newport Beach rental units.



BAIC

Turtle Rock Glen: a mixture of plans for uphill and downhill sites

There's a world of difference in how you design sales appeal into uphill and downhill units, says architect Huba Nagy. And the plans in this project show what he means. Downhill units capitalize on the natural advantages of the site; uphill units overcome natural siting problems.

For example, there's a tremendous amount of entry impact in downhill units like the three shown below, at right.

"Because prospects enter downhill units facing the view side of the site, the main living areas are stepped down the slope," Nagy says. "Thus, visitors get an immediate impression of dramatic interior spaces."

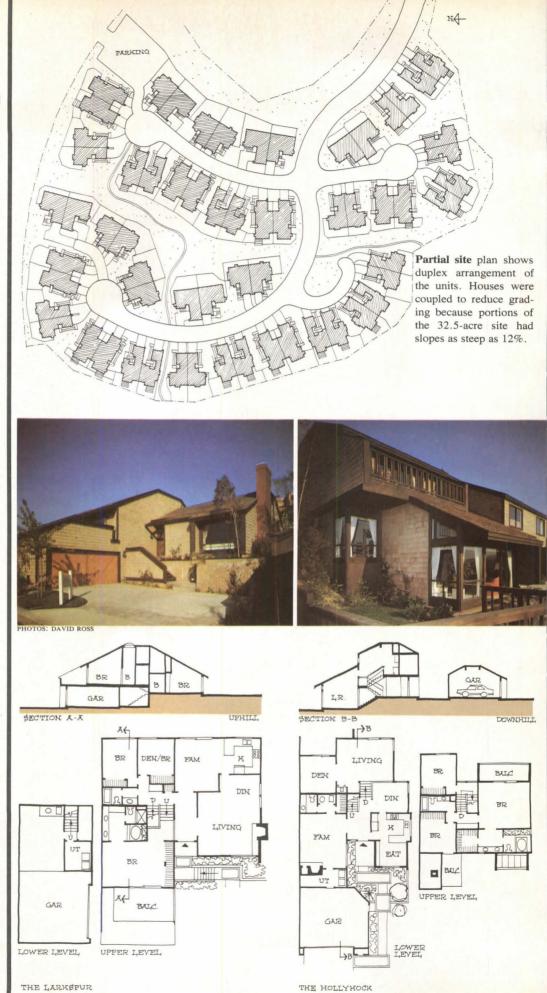
On the other hand, he points out, prospects have their backs to the view when they enter an uphill unit like the one shown below, at left. So the potential sales appeal of entry impact is minimized.

But you can still provide "a sense of arrival," Nagy says, if you elevate the entrance of an uphill unit from the street by building a series of outdoor steps and platforms.

"From there on, it's a matter of arranging the floor plan to suggest as much openness as possible, while taking advantage of whatever view potential the site offers.'

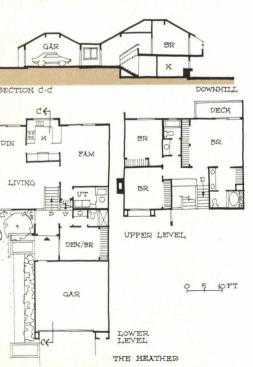
Overall, he notes, the view potential is greater in downhill units than uphill.

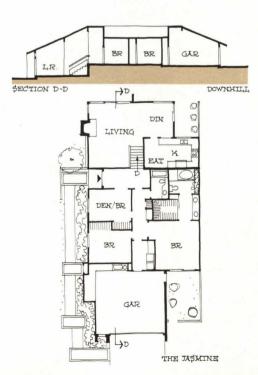
"Downhill plans usually allow you to orient not only major living areas to views, but also family rooms, dens and in some cases secondary bedrooms (see Heather and Jasmine plans). But in uphill units, secondary living spaces usually are turned to the side or face into the hillside.'



THE LARKSPUR







Dramatic interior (above) typifies the way space is handled in the project's downhill plans (three are shown at near left). The photo shows the trilevel layout in the unit whose rear (view side) elevation is pictured at near left, facing page. Interior design is by Carole Eichen Interiors.

Elevated entries for project's uphill units (one is shown in the photo at far left, facing page) allow main living areas to be isolated from traffic noise and oriented to view. In the project, uphill and downhill units face each other across winding streets. Turtle Rock Glen was designed by architect Richardson, Nagy, Martin.

ORY-BUILT

At last it can take homebuilding back into the ow-end market

It can, that is, if homebuilders and manufacturers can sit down together and solve some mutual problems.

Certainly there is incentive enough.

In most major markets the factory houses, whether mobiles or sectionals, could undersell the cheapest stick-builts by several thousands of dollars. Hundreds of thousands of buyers could be attracted, benefitting both the house manufacturer and the homebuilder who eventually markets the house.

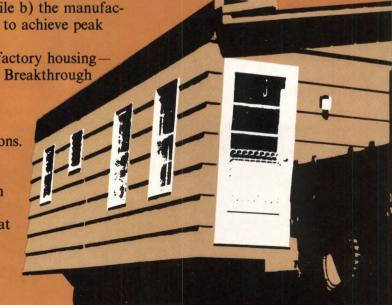
But there are two key problems that keep the factory-built house from moving toward its real potential:

1. Most homebuilders don't realize how much less expensive factory housing is right now.

2. Supply and demand must be balanced if a) the builder is to get the houses he needs when he needs them while b) the manufacturer maintains an even-enough production flow to achieve peak efficiency.

There may also be a psychological barrier to factory housing the Operation Breakthrough hangover. In 1970, Breakthrough whipped up a storm of enthusiasm for factorybuilt housing. Unfortunately (as HOUSE & HOME pointed out at the time), the concept simply wasn't feasible under the then prevailing conditions. And when the program bombed, it left a bad taste that lingered in homebuilding's mouth.

But if the homebuilding industry wants to win back the low-end housing market, builders and developers must take a new and very hard look at the factory-built house. What they see may surprise them. -M.C.H. Jr.



First, let's define the factory-built house

It's a single-family unit, usually called a sectional, built in the factory in sections (usually two), trucked to the site, dropped onto a prebuilt foundation and zipped together. The sections are usually 12' wide and anywhere from 40' to 64' long.

The factory-built house is, for all practical purposes, completely finished in the factory—structure, plumbing, heating, electrical, floors, siding, paint—the works. The only exceptions: areas which must be closed off or finished after the zipping operation; roof overhangs that exceed over-the-road width limitations and must be added on site; and, if drywall is used, taping, spackling and painting. (This can be done in the plant, but it's likely to crack in transit.)

By this definition, the factory-built or sectional house bears no relationship to the prefab; the latter is essentially a stick-built house with some of the sticks preassembled into panels. Nor should it be called industrialized housing; that is merely a vague term that covers every part of a house that's assembled off-site—trusses, prehung doors, kitchen cabinets, wall panels, etc. The term is so all-inclusive as to be meaningless.

And it is not multifamily modular housing. That concept, the backbone of Operation Breakthrough, resulted in the biggest manufacturing disasters of that ill-starred program. There is almost no multifamily, factory-built housing being built today.

By this definition, a lot of companies are producing factory-built houses—or a close approximation—right now

First, there are the section-house producers; the National Association of Home Manufacturers estimates there are about 250, and they will produce something like 60,000 houses this year. They market their houses almost entirely through networks of small builders who build, typically, from five to forty houses a year.

These builders buy sectionals instead of building conventionally for several reasons: to get houses up quickly, or to sell in remote areas where assembling crews for conventional building would be difficult, or to control costs more accurately.

The builder who buys sectionals will pay, typically, \$15 to \$17 a sq. ft. out of the factory door, plus from \$1 to \$2 a mile for transportation to the site. This lets him compete quite handsomely with the small stick builder, even allowing a price cushion for the relative inflexibility in design and plan of the sectional. It also allows a comfortable profit for the manufacturer.

The other type of factory-built house being produced in some volume today is the doublewide. It is produced by mobile-home companies, and although it is usually classed legally as a mobile, it needs very few changes to be turned into a fully code-conforming sectional. Indeed, some mobile manufacturers are already producing such sectionals (calling them, somewhat inaccurately, modulars). And most mobile manufacturers expect that, over the long haul, a major portion of their output will shift to sectionals.

Both groups have capacity to produce a lot more sectionals. The National Association of Home Manufacturers says sectional manufacturers are running at only 65% of capacity.

Mobile manufacturers' capacity is harder to estimate. While the industry is producing slightly more than 50% of its peak output of a few years ago, the Manufactured Housing Institute reports that many marginal plants have been permanently abandoned. So existing plants are running close to capacity.

But only about 30% of total mobile production is now in double-wides. So in theory, at least, some of the remaining 70% of plant capacity could handle sectionals were the demand to increase.

If the factory-built house is to realize its potential, the homebuilder must create the demand

In the case of sectional-house companies, he already does.

But the mobile-home industry is in a very different position. Most of its relatively small sectional output is now sold through the same mobile-home dealers that handle double and single-wides. Most mobile manufacturers say they plan to stay with this arrangement, if necessary, turning the dealers into developers. And most homebuilders see this as impractical.

"There's just no way you're going to take a typical Ma-and-Pa mobile dealership and turn it into a home-development operation," says Dan Keiserman, a southern California homebuilder who has the rare distinction of being a double-wide manufacturer as well (see page 67). "Developing with sectionals would be the same as developing with conventional homes, except that the house itself is built off-site. Land

has to be found, financed and planned; approvals have to be gotten; and the project has to be marketed and merchandised to conventional homebuyers. This is a tough enough business for experienced homebuilders; the typical mobile dealer wouldn't get off the ground."

There's another problem, which some mobile manufacturers will admit to-the stigma of the mobile home.

"Let's face it," says an executive of one such company, "to a lot of people, mobile home means inferior home. We could produce a topquality sectional and as long as a mobile manufacturer's name was on it, it would be considered second rate.

"But that same sectional might be readily accepted if it were built and marketed by a local builder and developer with a known record in the community."

So the manufacturer will have to recognize the homebuilder's particular needs

These are the most important:

Design. The biggest readjustment will have to be made by the mobile manufacturers; by and large, typical double-wide design won't appeal to buyers of conventional homes.

Jerry Biddulph is vice president of the Fleetwood housing group, which makes both mobiles and sectionals. He explains the problem this way:

"Just as you can't sell a mobile buyer a unit that looks like a conventional house, by the same token you can't sell a conventional buyer a unit that looks like a mobile. Their tastes are completely different."

This means that such typical features as mobile-style aluminum skin, almost-flat roofs and shallow or nonexistent overhangs must give way to house-like design.

Design flexibility. One of the most important sales features of sectionals will be that they look as little like sectionals as possible. So mobile and sectional manufacturers alike will have to find ways to vary exterior finishes, roof configurations, and-through offsets and bridge sections (p. 68)—the entire shape of the house.

Floor plans, on the other hand, should present few problems to either sectional or mobile manufacturers, most of whom already offer sufficient variety to satisfy a wide market.

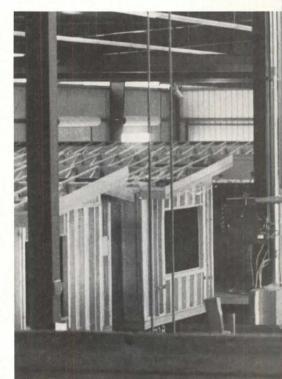
Price. This is a tricky area. If a builder can get his sectional delivered on site and ready to be zipped up for, say, \$13 per sq. ft., he'll sit up and take notice; but \$18 per sq. ft. might not be, in most markets, enough of a saving over stick building to persuade him to face the operational dislocations and possible buyer resistance

of sectional housing.

Right now, some mobile manufacturers feel they can produce fully conventional sectionals at around \$12 a sq. ft. (This compares with from \$10 to \$11 for a typical double-wide.)

"We shouldn't have any trouble meeting that price," says Keiserman. And adds Biddulph: "We're putting some sectionals out the door a little below that price right now."

But sectional manufacturers tend to get from \$15 to \$17 a sq. ft. out the factory door. This has proven competitive with stick building for small-volume builders, but whether it will be low enough to entice bigger-volume operators remains to be seen.



And the builder must realize that the manufacturer has problems of his own

The most important problem is keeping a smooth and continuous flow of units on the assembly line. Without this, most of the sectional's price advantage would evaporate.

"We couldn't run a special order of two or three houses at a time," says Biddulph. "But if a builder wanted, say, twenty sectionals of roughly the same type, we could handle that. It would be about a week's production for a typical plant."

Delivery schedules can be another problem. The manufacturer wants to take the units out the door, drop them on trailers and truck them to the site with no delays. Any holdups can force the company to warehouse the modules in its yards. This can create a horrendous space problem, and carries the risk of damaging units, since extra handling is necessary.

Finally, payments can be a problem. A major advantage of the factory-built house is that it doesn't need conventional construction financing because it gets built so fast. But the sectional manufacturer has to finance his materials between the time they come into his plant and the time the builder pays for the house. If there's a delay in the builder's payment, the manufac-

turer is on the hook for not just the materials but the whole house—or maybe a whole bunch of houses.

Typically, sectional manufacturers have two preferred ways of handling payments from their builders: prepayment, with the builder forking over the full price a week or two before his units are scheduled to run on the line, and COD when the units are delivered to site.

"Obviously, we prefer prepayment," says the president of a 500-unit-per-year sectional builder who prefers not to be quoted. "We give our builders a 3% discount if they prepay, as against 2% for COD and 1% for 15-day payment. And if we were running a large special order, especially if it meant buying a lot of non-standard items, we'd have to insist on some form of prepayment."

This would lay a burden on the builder, who would have to come up with some form of bridge loan to cover the period between prepayment and the mortgage closing. One possibility: some sort of escrow that would limit the builder's exposure and allow the manufacturer to borrow against it during the factory's construction run.

But these adjustments are well worth making for the money the factory-built house can save

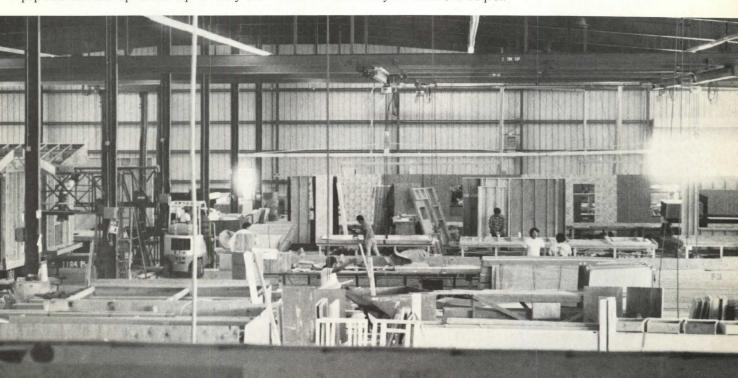
Case in point is Heritage Industries, which operates a double-wide plant in Riverside County, Calif. (photo below).

The plant is a typical mobile operation—54,-000 sq. ft. and capable of turning out three two-section units a day. The units range from 1,248 sq. ft. (24'x52') to 1,536 sq. ft. (24'x64'), and pop-outs can add up to 120 sq. ft. They are

priced just under \$11 a sq. ft., FOB the plant.

"To turn our units into sectionals," says President Dan Keiserman of Heritage, "would cost about 70¢ per sq. ft. more. This would include 2x4 studs instead of 2x3 and drywall instead of paneling.

"Right now, we could deliver a sectional to a site 400 miles away for under \$12 a sq. ft.



FACTORY-BUILT CONTINUED

How does this compare with conventional stick building? Let's consider a similar-sized unit built by The Ross Organization in Orlando, Fla., one of the least expensive building areas in the country.

"Our hard costs," says President Herbert Ross, "are \$16 a sq. ft.; take out the foundation (we build on slabs) and we end up with \$15 a foot. We get this low because we can use nonunion labor. Our carpenters get only \$5 to \$5.50 an hour, the mechanical trades about \$1 an hour more."

So the sectional is more than \$3 a sq. ft. cheaper. And in areas of more typical labor rates, the difference is likely to be \$8 or more.

Keiserman's own stick-building operation shows what can happen in a high-cost area. He is building townhouses in Fullerton, Calif., and the following cost breakdowns compare a 1,-440-sq.-ft. townhouse with a 1,440-sq.-ft. double-wide, modified to a sectional with the same number of rooms:

Rough lumber: Site-built \$2,246 Factory-built \$1,296

Some of the difference, Keiserman says, "is due to the more complex shape of the townhouse." But the bulk results from these factors: Better purchasing. "Because the plant is a steady buyer," says Keiserman, "it pays less than the conventional builder, who may buy in carload lots but buys sporadically. The saving is at least 10%."

Less waste. "You know what a stick-built operation is like," says Keiserman. "Saw horses get built out of 2x4s, long pieces get cut down to short pieces with a lot of chunks left over, and there's always pilferage. In the plant, we use every single chunk. The only thing left over is sawdust, and we're working on that. We figure that we save 20% by not wasting wood."

Carpentry: Site-built \$1,915 Factory-built \$ 778

"To begin with," says Keiserman, "we're using \$4-an-hour labor in the plant, compared to \$12 and up outside. And the plant-labor quality is just as good or better because everything is set up in jigs and fixtures and is absolutely precise."

Further, this labor force is far more efficient than an on-site crew, Keiserman says. "At the site, crews move from house to house. But in the plant, the houses come to the crews. Large sections are moved quickly by overhead cranes. And adjustable scaffolding puts workers at the ideal height for working on any part of the house."

This is the kind of low-priced package you can get

It includes 864 sq. ft. of living area, a basement under one section, a carport and a 50'x90' lot. It goes on the market this summer in Pueblo, Colo. at a price between \$20,000 and \$23,000. And the developer, Greenway Corp of Philadelphia, expects to make a comfortable profit on the deal.

The units themselves are to be built by Shulte Homes, a division of Scholz Inland, and while legally they are mobile homes (exterior walls have 2x3 framing), they are so close to being sectionals that the economics can be considered identical.

The factory-built package, consisting of two main sections (12'x30' each) and a bridge section (10'x12'), will cost between \$10,500 and \$11,250 excluding delivery.

"This price is based on wood siding," says John Rahenkamp, president of Greenway, "but we may change to stucco. The units would be shipped with wire lath and stuccoed on site. And we may also build the bridge section on site if it turns out to be cheaper."

To be certain that the factory-built units were

as advantageous as they seemed, Rahenkamp had the same unit priced out by a local stick builder, "He came in at \$20 a sq. ft.," says Rahenkamp, "which is just about double what we'll pay for the sectionals."

The unusual configuration of the houses reflects the fact that Rahenkamp is also a land planner (he is president on Rahenkamp, Sachs, Well & Associates of Philadelphia), hence concerned with the design both of the units and of the project's overall environment.

"Since the lots are only 4,500 sq. ft.," says Rahenkamp, "we wanted to be sure that each home got enough privacy." This was done by putting masonry walls, 10' high by 45' long, along each side line and in some cases, butting the sections against them.

This scheme has already been used in a project that Rahenkamp planned for another developer in South Carolina; it is shown in the plans and photo at right.

The Pueblo project will eventually have 336 units; 12 units are expected to be built for the first phase which opens in a couple of months.

Drywall: Site-built \$2,549 Factory-built \$1,500

The factory-built cost, Keiserman says, is an estimate; the double-wides he is now producing have plywood paneled interior walls that cost \$939 in place. But were he to change to sectionals, he would use drywall, installing it in the plant and taping and spackling on the site (to avoid cracking during shipment). The \$1,500 would include this site work.

Cabinets: Site-built \$893 Factory-built \$389

Keiserman buys cabinets for his townhouses, builds them in the plant for his double-wides.

Plumbing: Site-built \$1,915 Factory-built \$ 778 Electrical: Site-built \$1,080 Factory-built \$ 590 HVAC: Site-built \$ 619 Factory-built \$ 446 Windows: Site-built \$ 317 Factory-built \$ 216 Resilient flooring: Site-built \$ 806 Factory-built \$ 389 Roofing: Site-built \$ 736 Factory-built \$ 464 Savings on all the items above: \$7,106

Keiserman estimates his total hard costs (less foundation) for the townhouse at \$24 a sq. ft., compared with about \$11.25 for the sectionalized double-wide.

There are indirect savings too, chiefly in financing costs. The townhouse, Keiserman figures, eats up about \$3,220 in interest, while the factory-built unit would take about \$1,015. "And this isn't on the structure itself," says Keiserman, "it's for the land-a \$12,000 lotand the foundation." Savings here are \$2,205.

Thus the total difference between the costs of Keiserman's townhouses and his sectionalized double-wides is close to \$10,000 per unit.

This raises an interesting question: Why isn't Keiserman shifting his double-wides into sectionals right now and jumping into the low-end house market with both feet? The changeover would be easy, he says, and including necessary design changes and the period it would take to get HUD approval for the new units, it shouldn't take more than six weeks.

"Two reasons," says Keiserman, "First, I'd have to find the right market. It's very tough to locate reasonably priced land anywhere in southern California right now. And second, the double-wide business is booming right now. So we'll wait for a slow down there before we think seriously about changing."



designs by Rahenkamp, Sachs, Wells & Assoc. Floor plan at left is of the same unit; site plan, above left, is for Pueblo, Colo. project.



AND NOW

It's a building composed of four two-story units and three flats, with a two-car garage for each (see plan overleaf). And it offers important advantages:

1. It makes high densities possible. Sixteen to 22 units an acre are the average for most sites; under ideal conditions, 28 can be built.

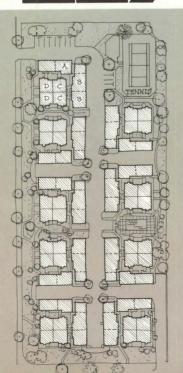
By adapting to such density, the sevenplex makes it pay to develop those desirable, passedover parcels in established neighborhoods that would be too expensive to develop at lower densities.

- 2. Its construction costs are low. The key reason is standardization, with a simple framing plan and a repetitive design. Hard costs for the Woodley Village units shown in the photos above and at right came to less than \$25 a sq. ft., even with upgraded range, oven, fireplace mantel and light
 - 3. It provides homelike rather than apartment-

like units. Each has a private entrance, a two-car garage, an outdoor living area-either patio or a balcony-and hook-ups for washer and dryer. These homelike details are important for Woodley Village's buyers, some of whom are moving out of apartments and buying their first homes and others who are moving down from larger houses.

D&S Company of Studio City, Calif. developed the sevenplex design with architect Matlin & Dvoretzky of West Los Angeles. The 63-unit Woodley Village in Granada Hills was the company's first such community, and it sold out in two weeks at opening prices ranging from \$33,900 to \$46,900. A subsequent 53-unit community in Pasadena, priced at \$36,900 to \$49,700, sold out from plans in a few hours. And a third 155-unit community in Woodland Hills received national television coverage when prospects started camping at the sales office six days before it opened for reservations.







Varied rooflines and framing jogs keep the repetitive buildings at Woodley Village from becoming monotonous. In the large photo above, the third bedrooms of the D units jut out to create covered entries for the D units (see plan overleaf). Two B units, which are built over four garages, are shown in the smaller photo.

Woodley Village consists of nine buildings arranged in two rows with a main drive between them. As the site plan (left) shows, most of the buildings are grouped in pairs, one with garages on the left and the other with garages on the right, so that they can be served by a common drive.

TO SEE HOW IT WORKS TURN THE PAGE



HERE'S HOW THE SEVENPLEX

Seven two-car garages form a right angle within which sit four back-to-back townhouses (units C and D, right). These are separated from the garages by covered walkways and landscaped patios. The three remaining units are flats built on top of the garages (units A and B). The second bedrooms of the B units extend over the walkway below to provide covered entries to the B units.

Because Los Angeles counts patio area in total square footage in determining a building's fire rating, the developers did not take advantage of all the possible patio and storage space the sevenplex plan permits. For example, the A unit stops short of the end of the garage below, but the entire garage roof was not turned into a patio. Also, one of the B units extends beyond the garage below, but this area was merely left open and landscaped (photo previous page, bottom right). The entire building is about 85 ft.

The density at Woodley Village is only 19 d.u. to the acre because a swimming pool and tennis court were included. There are also 15 guest parking spaces.

The 3.68-acre site cost \$265,000. Thus the raw land cost for each of the 63 units was only \$4,200, making possible the low opening prices of \$33,900 for the cheapest 1,043-sq.-ft. onebedroom/den unit to \$46,900 for the most expensive 1,281-sq.-ft. three-bedroom unit.

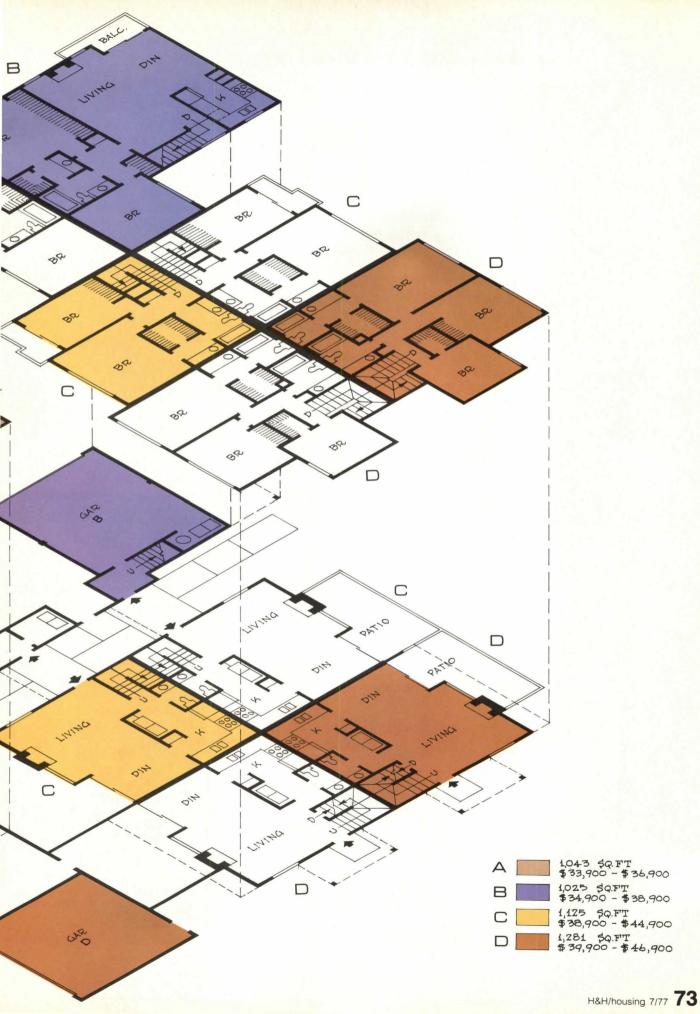
Woodley Village's four units appealed to a wide market: young, first-time buyers and older movedowns or empty nesters, singles and families.

Fully half of the buyers were single, widowed or divorced [H&H, June]. Fifty-five percent were 35 or under and 37% were between 41 and 59. Incomes ranged from under \$20,000 to over \$40,000, with the majority (about 69%) earning \$25,000 or less. A third of the buyers had children, evenly split between children under 12 and older children between 12 and 17.

What was the appeal of Woodley Village? Location and price/value were the two main reasons for buying (29% each). These were followed by investment/inflation (14%) and plan/design (11%). The vast majority of the buyers already lived in the area, and about a third discovered the community by driving past. Another 26% came from referrals.

-NATALIE GERARDI





The latest survey from the nation's 'hot' market shows...

What single-family buyers are

It's the third consecutive year that Walker & Lee has surveyed the homebuying preferences of southern California households.

But 80% of this 1977 survey covers new ground—or looks at subjects differently.

"We were after new information on what people want in their homes, not just an update of data we already have," says Robert Lind, vice president for marketing services in the big Anaheim real estate firm. It sells more than 5,000 new homes a year and recommends floor plans and marketing ideas to its builder/developer clients.

Just as it did last year [H&H, Aug. '76], Walker & Lee polled nearly 700 serious shoppers at 16 high-traffic developments. Detached-home prices ranged from \$32,000 to \$120,000, with an average of \$62,000. That these prospects were bona fide is indicated by the fact that 20% of the sampling said they planned to buy immediately and 42% within a year.

And the shoppers were asked realistic questions about preferences. Would they trade internal space for convenience or glamour? Would they pay for upgrades in the face of soaring home prices? And how important is the energy crisis in a choice of heating fuel or a willingness to pay for extra insulation?

Two points should be noted:

- While the prospective buyers were classified in several ways, we have classified them here by family income for the most part. Other categories are used only if they are more significant.
- The statistics cover only the detached-house buyer. Another section of the survey will profile the purchaser of attached housing.

Walker & Lee's intention, of course, is to use all of the data to help its builder/developer clients. But the information presented here is equally helpful to builders and developers almost everywhere. For the data in full -JOEL G. CAHN detail, turn to page 76.

THE BUYERS

Earning more but stretching harder

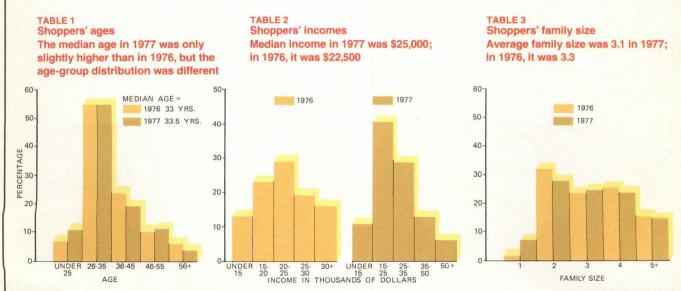
The typical detached-house shopper is from 26 to 35 years old, has a family of three-plus, owns his home and earns more than \$25,000 a year.

This shopper is willing to pay 2½ times his gross income for a house. And his main motivation for buying is a desire to use his new home as an investment as well as for shelter.

In contrast to his counterpart of last year, the 1977 shopper is slightly older. He's also more affluent and heads a smaller family (see tables 1-3). And where 71% of the 1976 shoppers owned homes, 85% are homeowners this year.

While the 2½-times-income rule—or stretch factor—is the same as last year, the median income of shoppers in 1977 is \$2,500 higher. And as incomes rise, the 1977 shoppers indicate they will stretch more to afford a new home—2.1 times their income on the low end of the earning scale but up to 2.8 near the high end (table 4).

This is a reversal from last year, when the stretch factor went from 3.0 on the low end to 1.7 on the high. The reason for





the change, Walker & Lee explains, is that buyers shopping the more expensive homes today must use more of their income and more of the equity from their previous homes to meet sharply increased prices.

This year, for the first time, W&L asked shoppers if their income figure included more than one source. About 60% said yes-indicating that much of this year's buying is based on two incomes or more.

Why were these buyers shopping? The biggest group (45%)

checked a new W&L choice—"Investment to dwell in" (see table 5). This, say the Realtors, helps explain why high-income buyers are willing to stretch farther and also why there are more homeowner/shoppers this year than last.

Furthermore, 38% of the shoppers said they were looking for a larger home—about the same percentage as in 1976. And 28% said they wanted to move to a better area. Only 10% desired a new home as a pure investment, but this figure may be deceiving as pure investors rarely identify themselves.

TABLE 4 The stretch factor The high-income shoppers of 1977 are stretching much harder

1977 Income level Sho	ppers will stretch	1976 Income level Shop	opers will stretch
\$30,000+	2.7 x income	\$25,000+	1.7 x income
\$25,000-\$30,000	2.8 x income	\$20,000-\$25,000	2.4 x income
\$20,000-\$25,000	2.5 x income	\$15,000-\$20,000	2.8 x income
Under \$20,000	2.1 x income	Under \$15,000	3.0 x income
Median:	2.5 x income	Median	2.5 x income

TABLE 5 Reason for buying "An investment to dwell in" leads the way

Investment to dwell in	45%
Larger home	38%
Tired of renting	17%
Better area	28%
Investment for rental	10%
Smaller home	10%

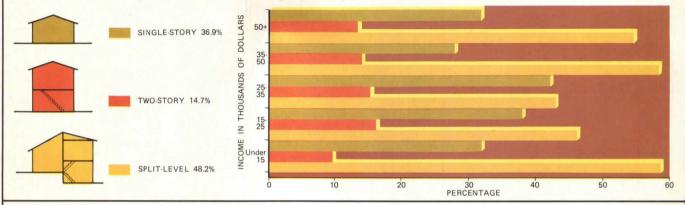
Note: Percentages total more than 100 because many shoppers made more than one choice.

House type: The split is still king

The split-level remains the preferred house—the choice of 48% of the current sampling. Results are the same no matter how the survey is categorized. The same preference was evident in 1975 and 1976.

The one-story house runs second, selected by 37%. More than 80% of the shoppers over 55 years old chose this elevation, possibly because so many detached-house projects offer zerolot-line or other small-lot homes to empty nesters.

With the same interior space, which of these would you prefer? (Check one.)



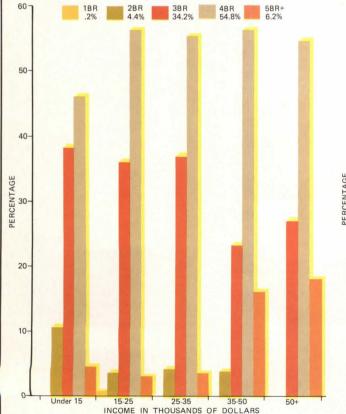
Bedrooms: Three or four are preferred

Almost 90% of the sampling said four (55%) or three (34%) bedrooms would best suit their needs. The one-bedroom and six-bedroom options were the least popular.

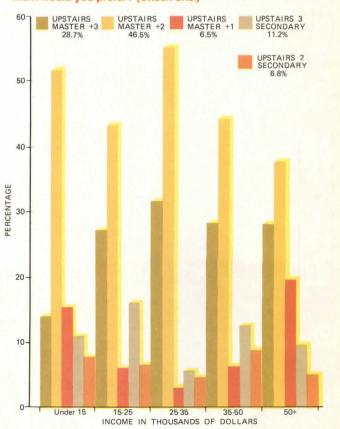
Shoppers chose from several combinations of upper- and

lower-level bedroom plans. Some 47% wanted one secondary bedroom downstairs and the master and other secondaries upstairs, another 29% wanted them all upstairs, and only 11% wished to have the master bedroom down and the rest up.

How many bedrooms do you want? (Check one.)



In a four-bedroom, two-story home, which bedroom arrangement would you prefer? (Check one.)



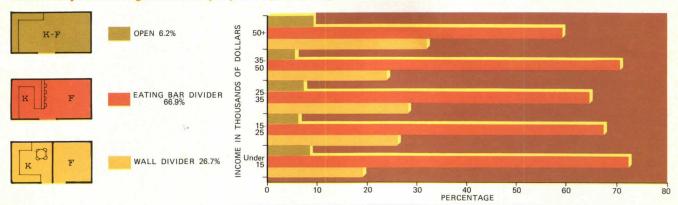
Family room vs kitchen: An eating bar divider is the choice

It is the favorite arrangement for separating the kitchen and the family room—preferred by 67% of the shoppers.

Another 27% voted for a completely separate family room and an eating area in the kitchen. Only 6% picked an open country kitchen/family room.

Almost half of the shoppers indicated that the traditional long eating bar was their favorite configuration (the remaining votes were divided between an island and a semi-circular shape). And 70% of the buyers opted for a family room that was shielded from the entry view over one that had an obstructed view.

Which family room arrangement would you prefer? (Check one.)

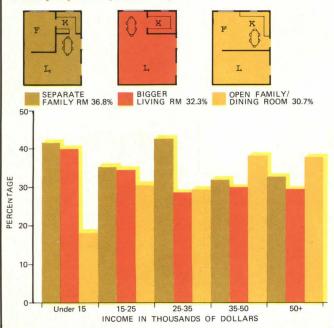


The eating area: It doesn't matter where it is

The shoppers divided almost evenly among three choices in a house with only one eating area: 37% wanted a small dining area and a separate family room; 32% chose a larger dining area and a larger living room; and 31% went for an open dining area/family room.

Walker & Lee says this shows that a separate family room is not always necessary if the living room is large enough. But the separate family room appears to be important to young buyers: half of the under-29 age group voted for this choice, while 40% of the over-40 category preferred the larger dining area and living room.

If there were only one eating area, which arrangement of rooms would you prefer? (Check one.)



The laundry room: A garage location is favored

Half of the buyers preferred this location; in effect, they were trading off for more living space inside.

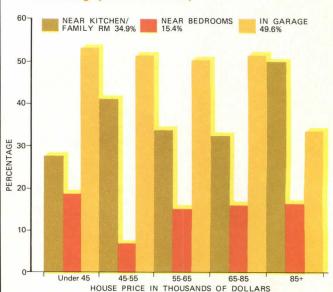
Another 35% wanted the laundry room near the kitchen/ family room. Only 15% picked a spot near the bedrooms.

"The bedroom location may seem practical," says W&L's Lind, "but people obviously don't want a washing machine near a carpeted area."

The price of the house shopped seems to affect the desire for a laundry room in the garage. In the above-\$85,000 category, only 33% of the prospects chose this location, while the majority (50%) selected the kitchen/family room spot.

Which would you prefer? (Check one.)

- Interior laundry room near the kitchen/family room Interior laundry room near the bedrooms
- Laundry area in the garage (resulting in more living space in the house)



The package should include some extras . . .

Three of four shoppers want the builder to include fencing in the for-sale package; two of three think a patio slab should be provided and about half feel that front landscaping should be thrown in.

And 69% want the builder to include complete carpeting. Only when it comes to drapes does this trend reverse; more than 70% of the shoppers prefer to add drapes themselves.

Would you prefer the builder to include these features for the price shown or add them at your own convenience?

> Drapes (\$1,000) Carpeting throughout (\$1,500) Fencing (\$500) Front landscaping (\$500) Patio slab (\$200)

... but others can be offered as premiums

Despite the costs listed for extras, shoppers chose upgraded kitchen amenities over standard offerings. Specifically:

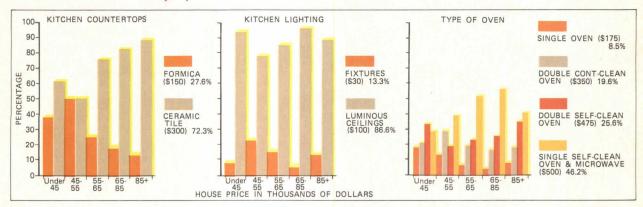
- Ceramic tile countertops won over Formica by 72% to 27% despite an increased cost of \$150.
- Luminous ceilings were favored over standard fixtures by an even bigger 87%-to-13% margin despite \$70 more in cost.

 And double ovens were preferred to single by an overwhelming 91% of the shoppers despite extra costs up to \$325. (The combination of a conventional oven and a microwave unit got the biggest vote, 46%).

Only among the shoppers for lower-priced homes were there significant votes for the cheaper, standard alternatives.

The same trend prevailed in choices of master bath ameni-

Which kitchen features would you prefer?



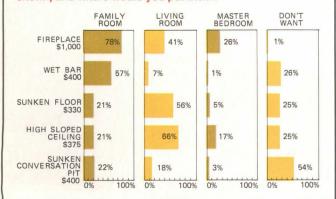
AND HERE ARE SOME SPECIAL PREFERENCES

Family room favored for fireplace

That location was selected by 78% of the shoppers.

And 57% felt the family room was also the best place for the wet bar. The living room was favored for high-slope ceilings (66%) and sunken floors (56%). But a sunken conversation pit alternative fared badly; 54% of the shoppers said they didn't want one at all.

Which of these features would you want (given the costs shown) and where would you put them?



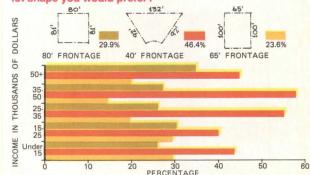
Percentages totaled horizontally equal more or less than 100; some shoppers checked more than one location for each feature, some checked none.

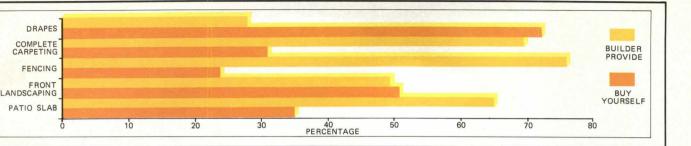
Shoppers still like large lots

Almost 70% of them wanted a lot larger than a stated 6,000-sq.-ft. standard even though they were told it would cost \$700 for each additional 1,000 sq. ft. The smallest lot listed-4,000 sq. ft.-was almost totally rejected by every income group even though it meant a savings of \$1,400.

The shoppers also favored a pie-shaped lot configuration (46% voted this choice) over squares and rectangles (30% and 24% respectively).

Given these three lots of equal size (6,500 sq. ft.), which lot shape you would prefer





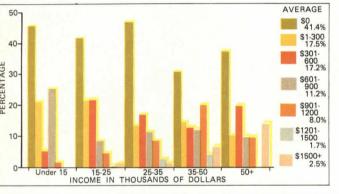
ties. Two-thirds of the shoppers favored tub/shower combinations over large stall showers. And more than half chose the larger, more expensive glamour tubs (oversized fiber glass and cast iron and all-tile Roman) over standard cast iron and fiber glass versions.

(One alternative was to include both an oval tub and a separate stall shower. Some 60% of the shoppers said they

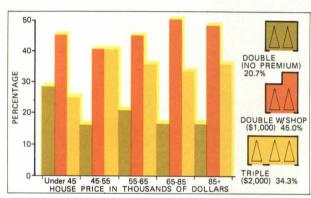
would pay an average of \$600 more for this.)

The shoppers would also pay more for an oversized garage. Despite premiums of up to \$2,000, a three-car garage or a garage/workshop combination were the clear winners over the standard double. Only in the sub-\$45,000 home-price sector was there any sizeable vote for the two-car garage.

How much more would you be willing to pay for a separate tub and shower in your master bath?

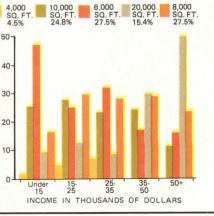


Given these costs, which garage would you prefer?



ssume 6,000 square feet to be the standrd lot size, at a cost of \$700 for each 1,000 quare feet. Which lot size would you refer? (Check one.)

4,000 square feet (save \$1,400) 10,000 square feet (pay \$2,800 6,000 square feet (no additional cost) 20,000 square feet (pay \$9,800) 8,000 square feet (pay \$1,400)



The energy crisis makes a difference

In southern California, at least, gas is still the favorite for heating (86%), water heating (88%), clothes drying (76%) and cooking (67%). But electricity has gained ground this year—clearly as a result of consumer concern over gas shortages.

In addition, 86% of the shoppers said they wanted such energy-saving features as extra insulation and double-glazed windows-even at higher home prices. But 55% voted for high-slope ceilings even after being told that they increase heating bills.

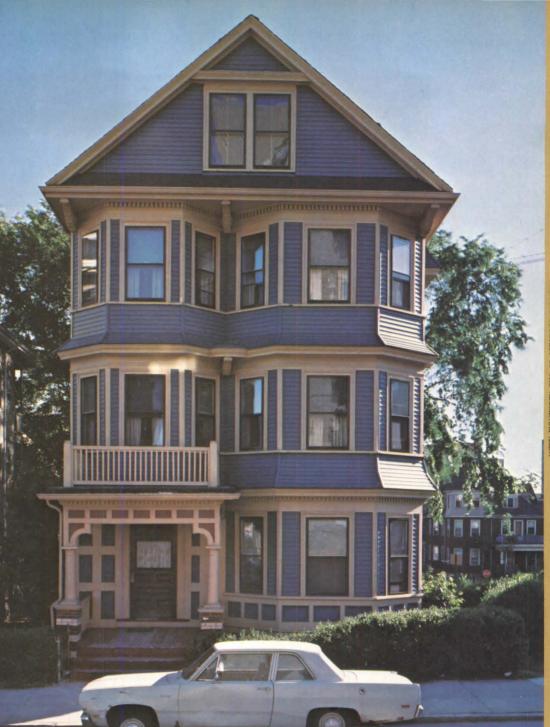
	GAS			ELECTRIC			
	1975	1976	1977	1975	1976	1977	
WATER HEATING	91%	93%	88%	9%	7%	12%	
HEATING	90%	91%	86%	10%	9%	14%	
CLOTHES DRYING	78%	84%	76%	22%	16%	24%	
COOKING	71%	77%	67%	29%	23%	33%	

Ranch and Spanish styles are still the choice

Almost half of these southern California shoppers selected one or the other as their preferred architectural style. But a good showing by the Colonial, Tudor and Cape Cod alternatives indicates some movement to these styles by prospects in this market.







Urban How to facelift old buildings

"Approach the job with the idea of preserving instead of replacing," says architect Joan Sprague.

That was how Ms. Sprague's firm, The Open Design Office, brought the exteriors of 25 frame houses up to modern standards without sacrificing their turn-of-the-century appeal. The 75-year-old houses, in Boston's low-income Roxbury district, contain 118 apartments.

To simplify communication with the contractor, Sid Kumins Inc., the architect used pictures instead of working drawings.

"We took photos of each house, blew them up and then put our directions on the enlargements,'

says Ms. Sprague.

Many of the original materials, such as shingle siding, ornate trim and slate roofs, were saved. The shingles were restained; the trim was repainted.

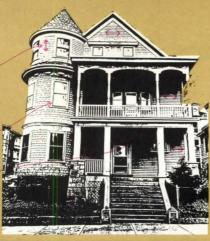
Where replacement was necessary, aluminum siding was nailed over worn-out clapboard. It was installed vertically as well as horizontally to adapt to rounded turrets and skirted upper floors.

Turned-wood porch railings that were broken were replaced with square sections in the same scale and spacing pattern. And porch ceilings were painted in accent colors in the turn-of-the century mode.

install aluminum siding as indicated by arrows retain and repair scalloped shingles siding and trim, stain and paint to match trim

install storm windows

replace 1st floor porch ceiling and repair porch floor on level above





retain recessed upper window

rebuild roof cornice and eaves

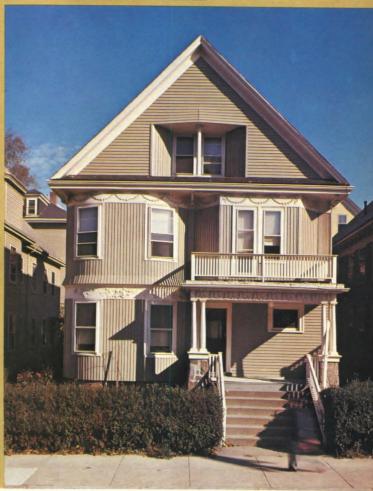
retain and paint street side trim

install stoom windows

strip siding to bare wood; install aluminum siding as indicated

rebuild stair rail upper and lower porch





thout losing their charm

Stain and paint colors were selected to duplicate the aluminum-siding colors. "So there were no jarring notes when an exterior included both old and new materials," says Rod Gilbert, who supervised the job for Kumins. In all, 12 colors were used to give the houses variety.

Costs totaled \$460,000—an average of \$18,400 per house. Here's the breakdown:

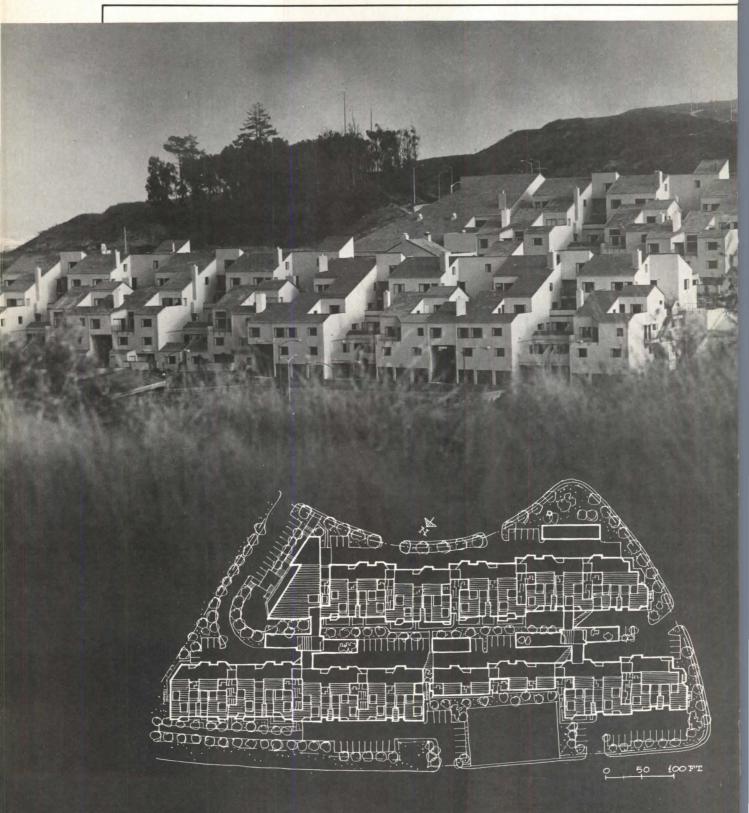
- \$109,000 to install aluminum siding.
- \$7,700 to strip off old clapboard that was too deteriorated to serve as a base for new siding.
- \$80,000 to repair and rebuild porches and steps.

- \$77,000 for staining and painting.
- \$46,450 for new aluminum gutters and downspouts.
- \$32,000 for 1,416 new conventional and bow aluminum storm windows (plus \$4,340 to cap windowsills).
 - \$27,070 to replace asphalt-shingle roofs.
- \$13,440 to patch stone, concrete and brick foundations.
- \$4,000 to cover soffits with roll-stock aluminum.
- \$59,000 for fees, change-orders and miscellaneous expenses. -J.G.C.

MULTIFAMILY WINNERS

As you study this diverse group of award-winning projects, you'll find one quality common to all: top-notch site planning. As the multifamily jury noted:

"Each project shows great concern with parking, the street and the open spaces . . . and that probably does more to determine the



livability of a project than the architecture."

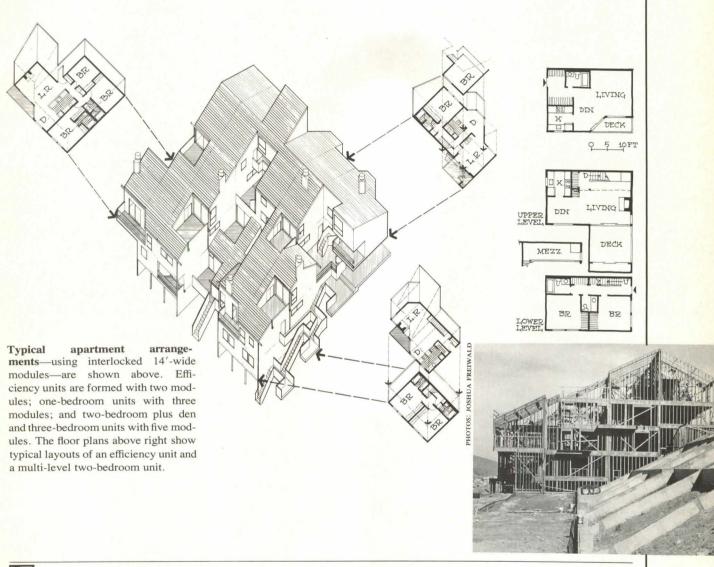
The winners include a hilltown condo apartment project (below), two townhouse projects (pp. 84 and 85) and a townhouse/mid-rise condo apartment complex (p. 86). They were selected from 105 entries in the multifamily category of the 1977 when you have that kind of

Homes for Better Living awards program.*

Commenting on the generally high quality of this year's entries, the jury said: "It's obvious that architects and developers have more understanding of each other's problems than they used to. And

relationship, you're almost always going to produce a better project."-J.R.V.

*The Homes for Better Living awards program is sponsored by the American Institute of Architects in cooperation with HOUSE & HOME. Judging is conducted at AIA headquarters. More winners will be featured in future issues.



FIRST HONOR AWARD The jury: 'Masterful plan for a dense hilltown'

The plan for this unorthodox condo apartment project is notable for:

- Its surprising openness despite high density—92 units on 4.6 acres.
 - Its coordination of pedestrian and vehicular circulation.
- Its variety of floor plans, each opening to at least two exposures.
 - Its high degree of unit-to-unit privacy.

But the quality the jury particularly commended was the project's visual diversity, accomplished despite "a rather regimented system of putting the houses together." Specifically:

Similar three-story, wood-frame sections are used in an irregular pattern, (see photo left) and all units are designed on a 14'-wide module. Two or more modules are interlocked horizontally and/or vertically to form apartments of varying sizes (isometric, above).

The foundations are grids of on-grade beams cast in concrete and set on concrete piers (photo above). Exterior walls are of textured and coated plywood on studs. Floor assemblies are of carpet, sound board and plywood set on prefabricated wood I-beam joists.

Architect: Natkin & Weber; Developer: Grubb & Ellis Development Co.; Owner: Grubb & Ellis Realty Fund II; Landscape architect: Anthony M. Guzzardo & Associates Inc.; Project: Colina, South San Francisco; Unit size: 530 to 1,473 sq. ft.; Prices: \$32,500 to \$52,500.

AWARD OF MERIT The jury: 'A very livable place'

And that, as one juror noted, probably is the highest compliment you can pay any project.

What makes this narrow, two-acre community so livable? Primarily the way the attached units are joined to give owners almost as much privacy as they'd have in single-family

The 21 units are staggered to create secluded outdoor living spaces—walled-in entry courts and recessed rear patios (photo bottom left). And to strengthen this feeling of privacy, the master bedrooms as well as the living and dining rooms are oriented to these secluded spaces.

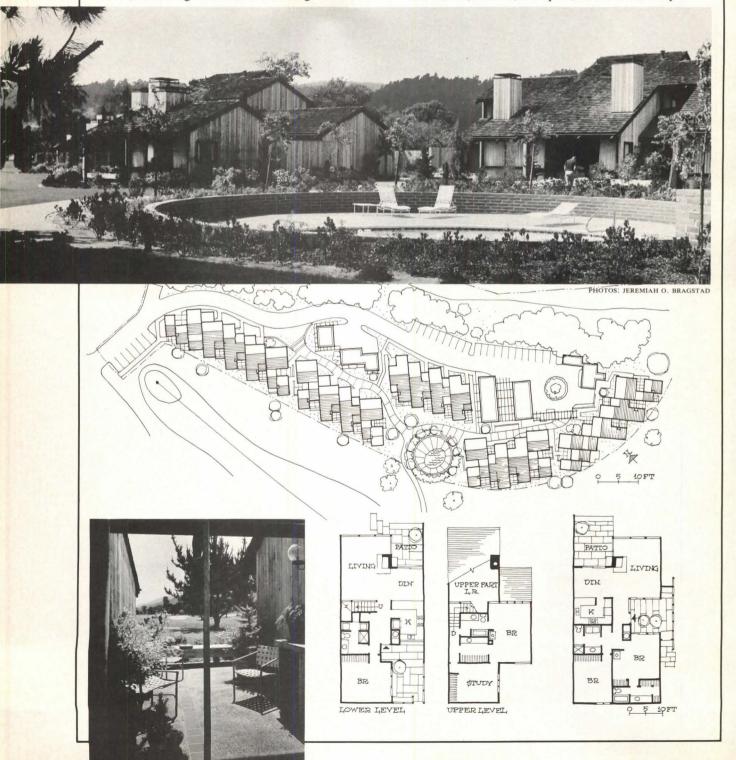
Some other features the HFBL jury commended:

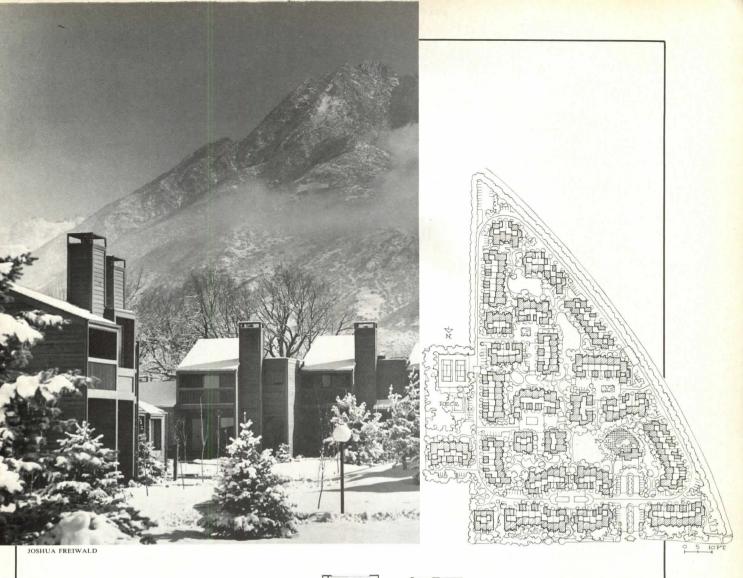
• The clustering of townhouse buildings around a com-

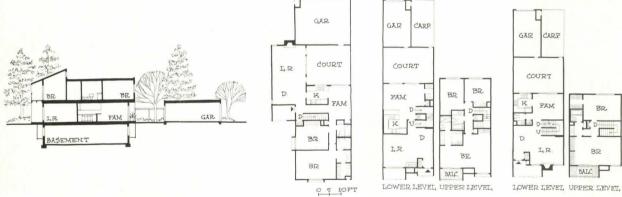
mon space so each unit overlooks an adjacent golf course.

- The parking compounds, placed so they're screened from the pedestrian area.
- The architecture, which the jury found "rich and warm." More specifically: "The use of wood is sensitive and the roof forms, while varied and exciting, are repetitive enough to unify the project."

Architect: Hall Goodhue & Haisley; Developer/Owner: Burchfiel Meadows Inc.; Builder: Daniels & House Construction Co.; Landscape Architect: Charles Robert Haugh; Project: Fairway Condominiums, Carmel Valley, Calif.; Unit size: 1,300 to 1,700 sq. ft.; Prices: \$75,000 up.







AWARD OF MERIT The jury: 'A homogeneous plan that avoids monotony'

Even though all the units in this 19-acre project are designed on a basic 22' module, there's a full visual variety throughout the site. That's a big reason why it was successful with buyers [H&H, Nov. '76] as well as the jury. Qualities that impressed both groups:

- The sense of neighborhood identity that comes from clustering the 143 units around greenbelts and auto turnarounds.
- The meandering paths that create changing vistas in the pedestrian areas, while uniting the mini-neighborhoods in a cohesive community.
 - The architectural treatment—especially, the jury noted,

the clean lines of the facades and the way the roof pitch echoes the slope of the surrounding mountains.

- The unit design—both the way the floor plans work and the way garages/carports are set up to provide highly private outdoor living areas (see section above).
- The single project entrance that channels all traffic around the perimeter of the 19-acre site.

Architect: Fisher-Friedman Associates; Developer: The Boyer Co.; Landscape architect: Anthony M. Guzzardo and Associates; Project: Park Place, Salt Lake City; Unit size: 1,400 to 1,800 sq. ft.; Prices: \$54,800 to \$62,000.

AWARD OF MERIT The jury: 'Ingenious use of a tight site'

Consider the problems faced by the developer and architect of this condo project, and you'll understand why the jury called the plan ingenious.

First, 189 units had to be packed into the 2.17-acre site. Second, zoning regulations required preservation of the views from existing buildings on higher land.

Third, since a waterfront view was to be a major selling point, a maximum number of units had to be oriented in that direction.

Here's how the project plan works:

Four irregularly shaped buildings—two are four-story, the others seven and nine—are grouped around a paved and

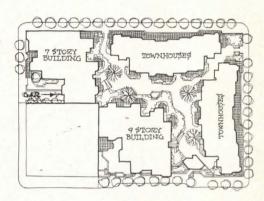
waterscaped plaza that threads through the site. The fourstory buildings contain 56 two-level units; the mid-rises have 133 flats. Each building's rooftop is heavily landscaped, providing two acres of outdoor recreational area to compensate for the land displaced by buildings. A one-story garage beneath the complex accommodates all parking.

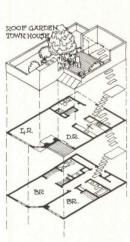
Architect: Bull Field Volkmann Stockwell; Original owner: Sansome Street Associates. Builder: Cahill Construction Co. Landscape architect: Royston Hanamoto Beck & Abev: Project: Telegraph Landing, San Francisco. Unit size: 800 to 1,500 sq. ft.; Prices: \$80,000 to \$250,000.













Single auto entrance (site plan, above) leads to underground garage. Floor plan at left is of upper townhouse unit. Its entry-level bedrooms are directly above the bedrooms of the lower townhouse unit (plan not shown) to reduce potential noise problems. Shown above is a typical two-bedroom flat.

The sales story: weak start, strong finish

For all of its architectural excellence, Telegraph Landing's early sales record was downright poor.

Six months after completion only 18 of the 189 units were sold, and the Travelers Insurance Co. had taken over as sole owner from its joint-venture partner, developer Alpha Land Co. [''Is this the best-looking bailout in the country?—H&H, Feb. '76.]

But by last March the project was a sellout—and without dropping prices except for a few units with less-than-prime

What turned the project around? A new marketing pro-

"We began promoting the units to active professionals and business people who worked downtown," says Hans Treuenfels, who became project manager in February 1976. "Originally, advertising and promotion was aimed at conservative, middle-aged couples.



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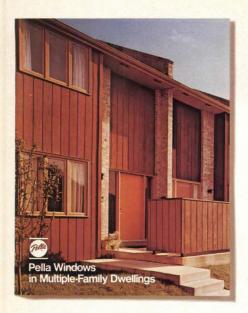
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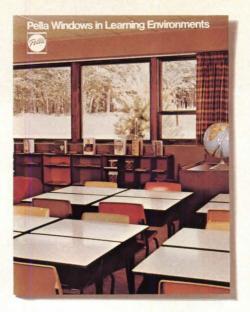
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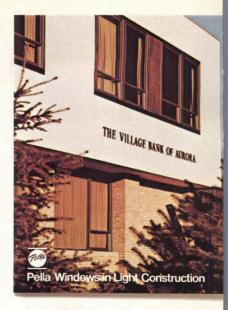




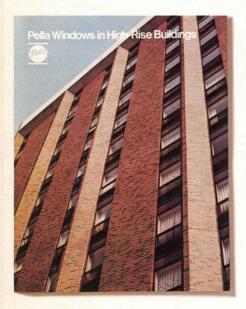
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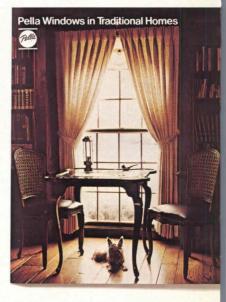
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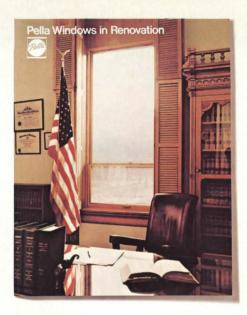
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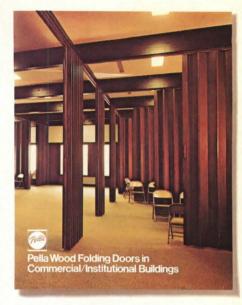
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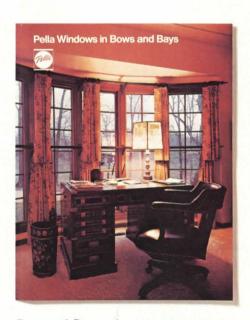
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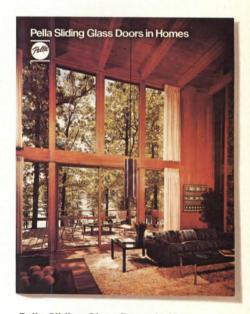
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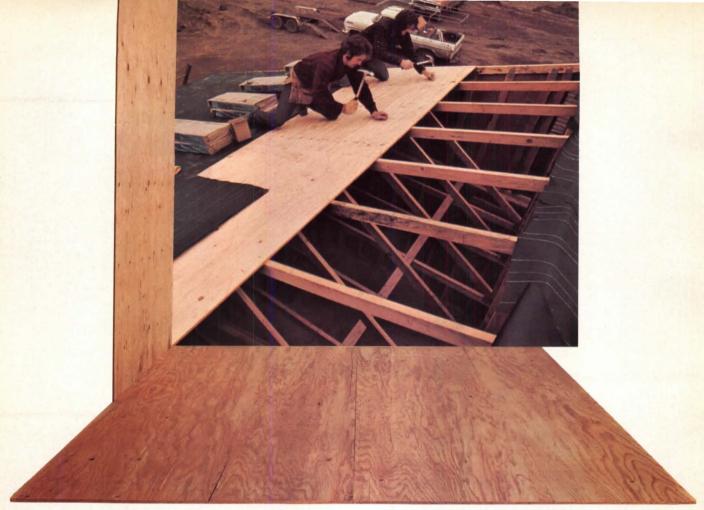
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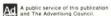
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Wherever you build, whatever your design, use Monray's outstanding curb appeal to attract more buyers.

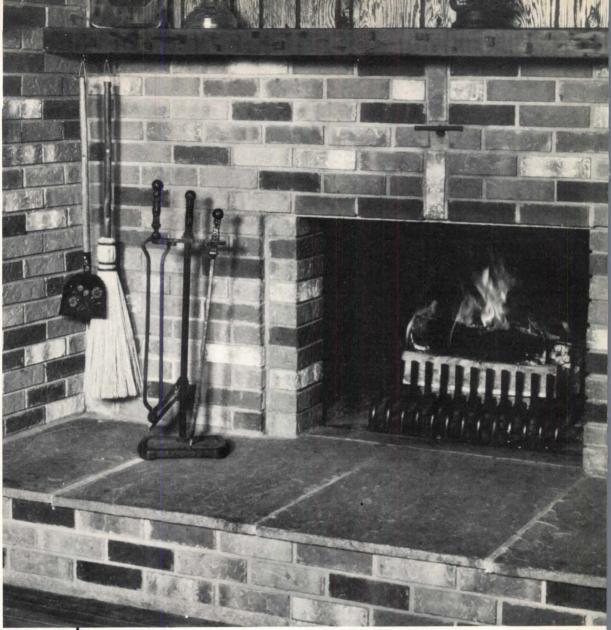


MONIER CO P.O. BOX 5567, ORANGE, CA. 92666 Builder: Morrison Homes, Rollingwood Fair Oaks, California

Circle 89 on reader service card

PRODUCTS

Bathrooms 92 Structural 94 Coatings 96 Coatings 101



"Hydroplace" gives heating system a boost

It's a hollow steel fireplace liner through which water circulates constantly. The water, heated by the wood fire, is piped to the house's heating system, where it preheats water or air returning to a boiler or furnace. Result: reduced fuel consumption.

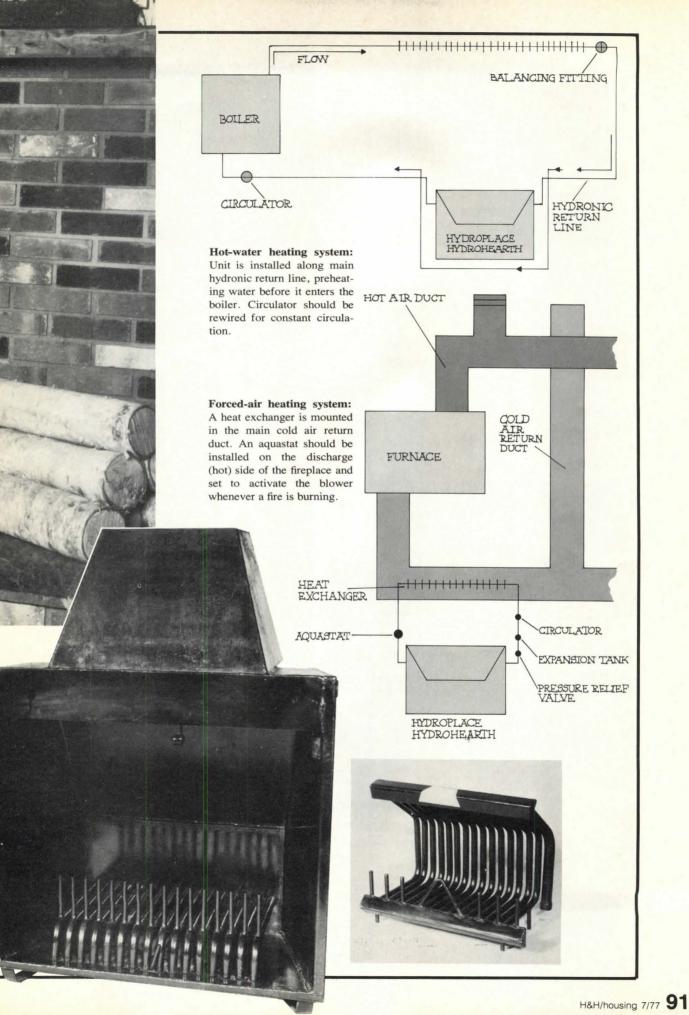
The "Hydroplace" forms the firebox, damper and log grate of a new masonry fireplace (photos above and right). To retrofit an existing fireplace, the "Hydrohearth," a grate constructed of hollow steel pipes (photo far right), can be installed instead. In either case, the unit is easy to hook up, requiring only two pipes for connection to a hot-water heating system (diagram top right). If the system is forced air, a heat exchanger is added (diagram right).

But are homebuyers willing to pay extra for a "Hydroplace?" Custom builder Garry

Schmader of Tionesta, Pa. says yes. His company builds in the \$60-70,000 range and the "Hydroplace" adds only about \$700 to house price. (Very few houses in his area are built without masonry fireplaces.)

Charles Hartman, of Haven Homes in Beech Creek, Pa., is faced with a different situation. The reason: His company, which builds about 300 houses a year, offers the "Hydroplace" as part of an electric furnace/fireplace/insulation package that costs the buyer \$4000. Even so, three or four have chosen the package in the five months the company has been offering it. Average Haven Homes prices: \$40-\$50,000.

Both "Hydroplace" and "Hydrohearth" are covered by a 25-year guarantee against burnout. Ridgway Steel Fabricators, Ridgway, PA. Circle 282 on reader service card

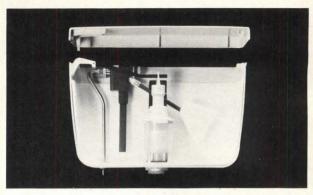




Cultured marble vanity top (above) is a one-piece seamless unit. Molded shell bowl, with backsplash and dripless edges, is available in 15 colors. Cerilean, South Bend, IN. Circle 200 on reader service card

Washbasin and pedestal (right) are molded of Celcon acetal copolymer. The unit is resistant to scratching, abrasion, detergents, ammonia and limescaling. Amcel Ltd., Chatham, NJ. Circle 201 on reader service card





Watersaving toilet tank (right) can save an average family of four in excess of 8,000 gals. of water a year. The unit features hydrobalanced anti-siphon float cock and flush valve (above), which enable the tank to fill and flush quickly and silently. The tank, which fits most water closet bowls now on the market, comes in 3.5 and 2.5 gal. capacities. Constructed of non-corrosive PVC, unit is unbreakable. Geberit, Michigan City, IN. Circle 203 on reader service card





Four-piece tub/shower system, "Contempo 60" (above), is formed from durable PVC copolymer. The 60" bathing well and 3-section tub/shower wall are easy to install. Lyons, Dowagiac, MI. Circle 202 on reader service card



Bath accessories in a traditional style (above) are fabricated of "Zamak" metal. Units have protective finishes in antique silver or antique brass. NuTone, Scovill, Cincinnati, OH. Circle 204 on reader service card



Elongated toilet (above) of mirror china comes in neutral "Royal Parchment." Material is unaffected by cleansers, impervious to stains and fadeproof. Mansfield, Perrysville, OH. Circle 205 on reader service card

Two-handle faucet (right) features decorative handles of crystal-like acrylic or highly polished metal. Unit has spout with aerator and pop-up waste. Bradley, Menomonee Falls, WI. Circle 207 on reader service card



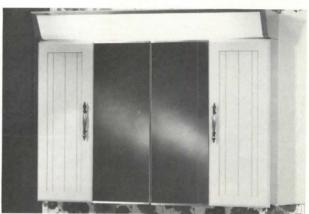
White porcelain washstand (above) is designed for small bathrooms. Basin measures 181/2" back-to-front, across and 32" high. Sherle Wagner, New York City. Circle 206 on reader service





"UltraHot" water system (left) dispenses cold, warm and hot water from a cold water line. Heating tank fits under sink. In-Sink-Erator, Emerson, Racine, WI. Circle 209 on reader service card

Medicine cabinet, oramaTM (below), is part of the "Val-U-Bath" line. The surface-mounted unit is available with optional lightcap. Williams, Elkhart, IN. Circle 210 on reader service card





"Splash-Ender" (left) is designed to keep shower water in the tub. Unit features an easy-to-clean finish of durable ABS plastic. Device can be easily installed with caulking adhesive. Waterguide, Portland, OR. Circle 211 on reader service card



Showerfold® tub/shower enclosure, "Tiara II" (above), features center-opening doors with a full-length magnet for watertightness. Unit is available with gold- or silver-finished frame. Kinkead, Chicago. Circle 208 on reader service card



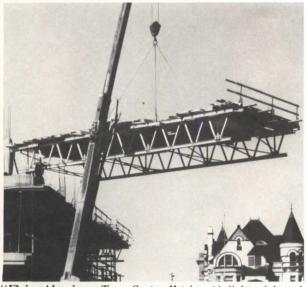
Surface-mounted bathroom cabinet, "Regency" (above), features three compartments for maximum storage. Unit is available with traditionally styled frame in a choice of finishes. Triangle Home, Chicago. Circle 215 on reader service card



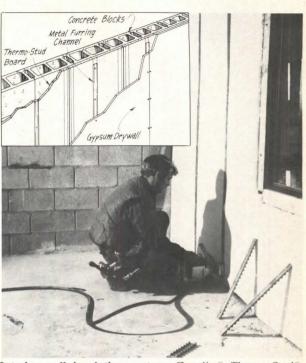
One-component urethane foam (above) serves as an insulating filler between a window and framing. Self-curing material expands to two to three times its original volume, filling nearby space as it sets to a flexible or semi-rigid form. Rubicon, Geismar, LA. Circle 249 on reader service card



Thru-the-wall utility brick (left) features a ceramic glazed interior face and a textured exterior face. Durable unit, with square corners, allows for easy insertion of insulation. The 8" brick needs no steel framing. Stark, Canton, OH. Circle 250 on reader service card



"Flying Aluminum Truss System" (above) is lightweight and has a high strength/weight ratio. Unit has telescoping cross braces which adjust truss centers to job conditions. System can be assembled rapidly because sections have no lefts, rights, tops or bottoms. Symons, Des Plaines, IL. Circle 251 on reader service card



Interior wall insulation system, Zonolite® Thermo-Stud® (above), is used on masonry walls. The system is a rigid styrene foam insulation board in which a U-shaped metal furring channel is imbedded (see insert). Power-driven fasteners secure system. Grace, Cambridge, MA. Circle 252 on reader service card



Fiber glass insulation batt (above) is rated R-30. The 81/2"thick batt is available in 15" and 23" widths and 4' lengths. Unit comes either unfaced or kraft faced and is compression packaged to facilitate storage and delivery. Insulation meets present standards. Johns-Manville, Denver, CO. Circle 253 on reader service card



Particleboard stepping, "Ampine" (left), is manufactured from western pine. Stepping with one bull-nosed edge is 11/16" thick and 111/4" wide. American Forest Products, Stockton, CA. Circle 242 on reader service card

Foundation vent with integral sliding shutter (below) is high-density polyethylene. Weather-resistant unit measures 8"x16". Rudeen, Minneapolis, MN. Circle 243 on reader service card

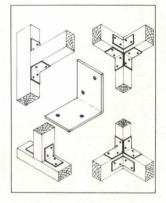


Adjustable steel piers are for use in place of wood posts under residential floor girders, as shown below. Piers, which provide more room for heating ducts and piping, are set on prepoured concrete footings (left). Non-decaying piers can also be used to repair houses where settling has occurred. Glen-Crete, Concord, CA. Circle 244 on reader service card





Joist hanger, "Model MH" (left), eliminates the need for mudsills in one-story foundations. Galvanized steel unit features nail and clearance holes. Vetra, Los Gatos, CA. Circle 245 on reader service card



Framing angle (above) is manufactured from 16-gauge galvanized aluminum. Device has two 2"x11/2" legs and is for use with 2x2 and 2x3 nominal wood members. TECO, Washington, DC. Circle 246 on reader service card



Anchor clip (above) eliminates need for bolts in anchoring wood to masonry. Heavy 16-gauge zinc-coated steel device can also be used as a rafter tie. Panel Clip, Farmington, MI. Circle 247 on reader service card



Electrically operated skylighting system (above) features skylights that open at the touch of a button. Steel box beam framing is standard for the completely weatherstripped and guaranteed watertight system. Rollamatic, San Francisco, CA. Circle 248 on reader service card



"Duro" wood preservative (above) prevents warping and rotting and guards against termites. The easy-to-apply substance penetrates the wood surface, plugging up pores. It is suitable for decks, siding, Woodhill, Cleveland, OH. Circle 254 on reader service card

Clear masonry sealer, "Full Seal" (not pictured), forms a water-resistant bond that protects concrete, mortar, plaster, masonry, wood or plywood. The clear solution of film formers and repellents penetrates deep. H.B. Fuller, St. Paul, MN. Circle 255 on reader service card



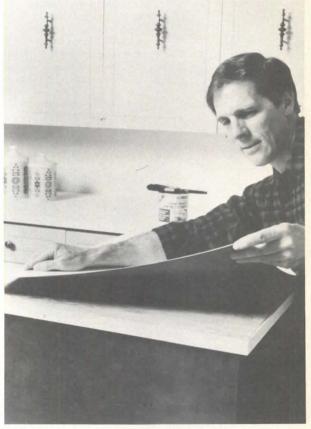
Foam sealant (above) is a single-component urethane. The material expands to three times its volume on contact and cures to a closed-cell rigid form. Coplanar, Oakland, CA. Circle 257 on reader service card

Vinyl spackling compound (right) repairs cracks and holes in plaster, wood and drywall. The substance contains no asbestos, so it can be sanded without the danger of inhaling toxic materials. Franklin Glue, Columbus, OH. Circle 258 on reader service card





Fulcolor® Color System ranges from the deep-tone "Ultra Colors" to "Whisper Whites." Formulated for interior or exterior use, all the fade-resistant colors are lead free. Paints come in latex flat, latex semi-gloss and alkyd semi-gloss. Fuller O'Brien, South Bend, IN. Circle 256 on reader service card



Acrylic latex contact cement dries crystal clear in as little as 20 minutes. The water-based, nonflammable, nontoxic substance allows up to 2 hours of assembly time. A single coat is sufficient for most bonding jobs. Elmer's, Borden, Hilliard, OH. Circle 259 on reader service card

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Lester Goodman is president of Lester Goodman Associates, a marketing-services company that specializes in marketing research, planning and consultation for residential builders. Mr. Goodman has spent 20 years in the housing field. He has been responsible for the marketing and sales of more than 20,000 units for a number of major builders, including the Larwin Group, M.J. Brock & Sons, and Town Properties, and was for two years marketing vice president for Rutenberg Corporation. Mr. Goodman is currently vice president of the new Institute of Residential Marketing, a college-level educational program developed by NAHB, and has been for 12 years a lecturer on marketing for the University of California at Los Angeles and Irvine.

Gene E. Dreyfus is president of The Childs/Dreyfus group, an interior design firm based in Chicago and with offices in New York, Palm Beach and Toronto. He is a former builder nearly 2,300 homes in the Chicagoland area from 1950 to 1960. And since 1960, first as head of Gene E. Dreyfus Associates and for the past 11 years with his present firm, Mr. Dreyfus has served as a merchandising consultant to more than 150 builders in the U.S. and Canada.

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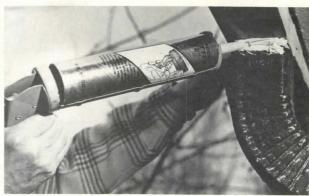
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"Seal Waterproofing Stain" (above) gives allweather protection. Offered in 12 solid and 10 semi-transparent tones, the stain can be used indoors or out. Thompson, San Francisco. Circle 260 on reader service card

Fast-dry contact adhesive, "Quik-Key" (left), bonds plastic laminates to wood or particle board. The nonflammable substance dries in 10 minutes. Miracle, Bellmore, NY. Circle 261 on reader service card



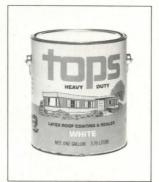


Gutter-TiteTM (above) seals seams and cracks in gutters and downspouts. The compound of a synthetic butyl rubber polymer is unaffected by heat or cold. Macco, Wickcliffe, OH. Circle 263 on reader service card

Acrylic wall coating, "Ruffit" (left), gives a textured stucco effect to interior surfaces. Easy-to-apply, premixed substance is offered in 6 colors. Z-Brick, Woodinville, WA. Circle 264 on reader service card



Paint additive line, "The Painter's Helpers" (above), consists of four different conditioning products. Included are "Pent-Lube," "Spray-Aid," "Bind-Aid" and "Smooth-Aid." Resin & Chemicals, Cincinnati. Circle 262 on reader service card



Latex roof coating, "TOPS" (above), is suitable for aluminum, asphalt, felt, galvanized steel and primed steel roofs. Easy-to-apply material preserves and waterproofs. DAP, Dayton, OH. Circle 265 on reader service card



"Slip-Pruf" coating (above) is a plasticized vinyl material that provides non-slip areas on indoor or outdoor surfaces. It is heat and water resistant. Gibson-Homans, Cleveland, OH. Circle 266 on reader service card



Multipurpose floor adhesive (above) can be used for asphalt tile, vinyl and cork flooring or indoor/outdoor carpeting. It is water resistant and odor free. Wilhold, Santa Fe Springs, CA. Circle 267 on reader service card

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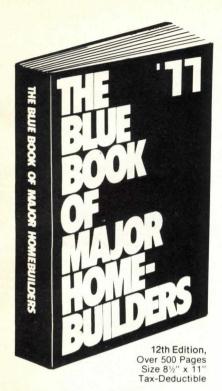
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Colonist is the only dieformed door with the carefully executed wealth of detail that exactly duplicates the appearance and character of wood stile and rail doors. Cove and bead sticking, grain and joint details...all are sharp, clear and realistic. Thus, only Colonist does what a die-formed door should do: look like the real thing.

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Colonist is not like a wooden door in one respect: Colonist is tougher. Since it's die-formed from a single sheet of hardboard (which is 50% denser than wood), there are no joints between the stile, moldings, panels and rails to separate through hard use or with the passage of time. So Colonist is in fact better than the wood door it replaces.

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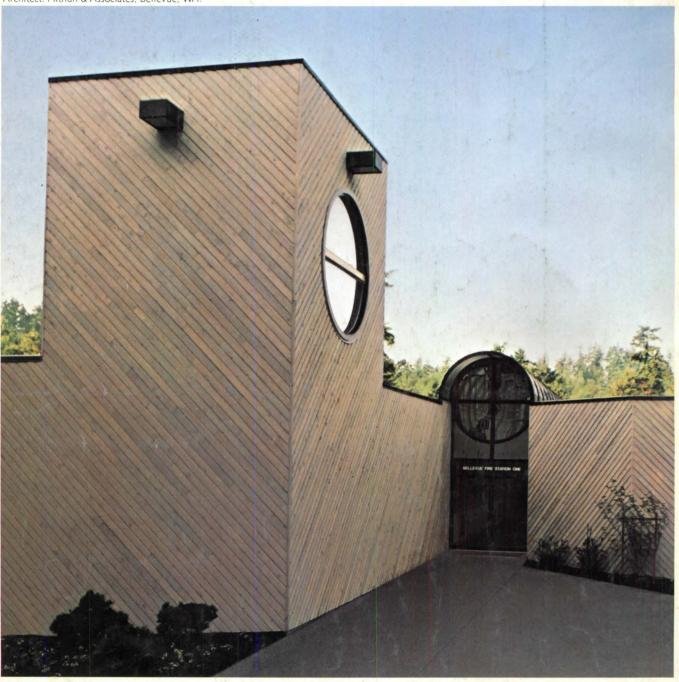
Despite these superior features, Colonist faced doors sell for less than half the price of wood stile and rail doors and only a little bit more than less authentic dieformed doors. So any way you look at it, with quality in mind...choose Colonist.

For the names of quality door manufacturers using Colonist, write: Masonite Corporation, 29 North Wacker Drive, Chicago, Illinois 60606.



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