January 1975 House&Home

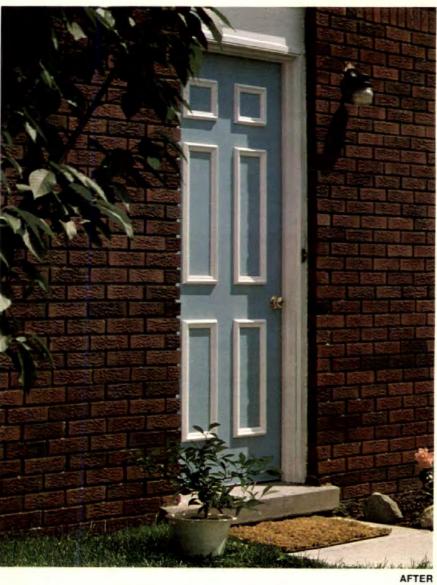


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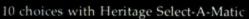
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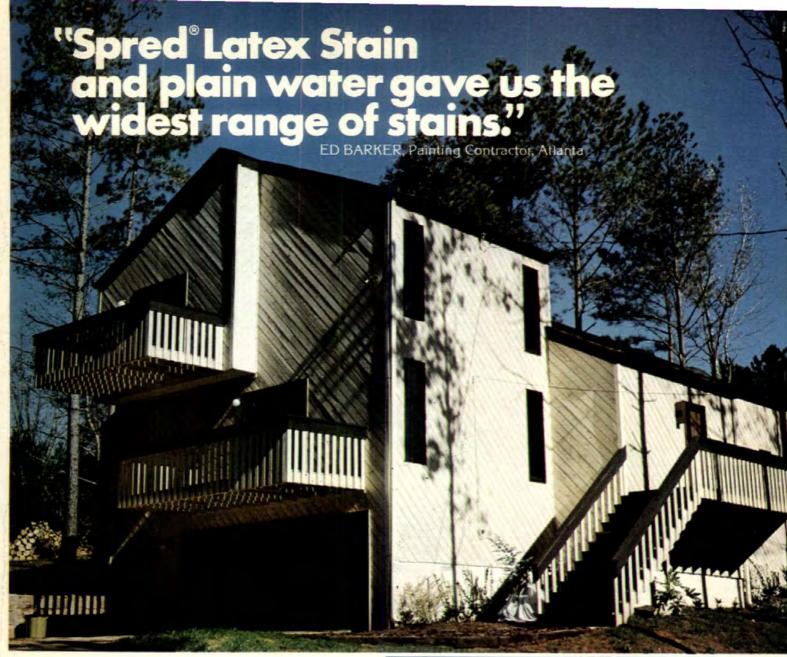
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Cover/Sculpture by Robert Strimband



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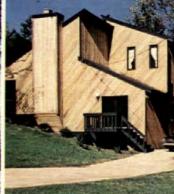
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Dramatic transparent colors are typical of "natural look" achieved in Atlanta's Foxmoor Subdivision where nearly 100 prestige single homes (above) were finished by Ed Barker with Spred Latex Stains. Homes are priced from \$40,000 to \$75,000. Some required up to 70 gallons of stain.

Colony of Stone Mountain, Atlanta, (at right) is a rental apartment complex of 500 units, up and down design, and all exteriors are in natural tones of Spred Latex Stain.







much con in condos, senators find; so, regulation threatens

Only short months ago one of Washington's most knowledgeable housing experts insisted that "legislation regulating condominiums will be a long time coming."

But that's no longer the out-

"The glamor is off the condominium market," says a housing lobbyist.

So leading legislators are now moving up to seize the political benefits of pushing another extension of consumer protection via federal legislation.

As more homebuyers find more of the market restricted to condominiums-either units or apartment conversions-they're reacting to newspaper and TV accounts of shady dealings, misleading cost figures, deceptive advertising and sales practices. And those who have been stung are writing their congressmen.

Pro-condo. The legislators are still aware that-aside from the speculative boom in such resort areas as Florida and Ocean City. Md.-the trend toward condominiums is based for the most part on legitimate supplydemand forces in the housing marketplace.

Senator Joseph R. Biden (D., Del.), sponsor of one of the bills calling for regulation of condominium sales, pointed out to the Senate the advantages of condos to developer and buyer.

The developer makes a profit and the buyer gets "the efficiency and economy of multifamily living with the economic benefits of home ownership." Biden said, including "tax deductions, relative freedom from maintenance, build-up of equity and access to communal facilities that would be too expensive for the individual homeowner, like swimming pools or tennis courts."

And anti. Biden also contended, however, that consumers "are prey to inadequate disclosure." And, at the opening of hearings on new condominium bills, the senator added:

"The only reason we are stepping into the breach again is because people are being cheated; people aren't in fact getting a square deal."

The hearings were held by the Senate Housing Subcommittee, chaired by Senator William



SENATE'S BIDEN 'People are being cheated'

Proxmire (D., Wis.), who is set to become chairman of the full Banking Committee and the Housing Subcommittee when the 94th Congress organizes this month. In addition to Biden, Proxmire and Senator Edwin Brooke, (R., Mass.) also are sponsoring condominium legislation. More Senate hearings next year are a certainty.

Ferment in House. On the House side, the Banking Committee's chairman, Wright Patman (D., Texas), "is interested and pushing for action," according to one of his aides. Rep. Benjamin S. Rosenthal (D., N.Y.), told the House during the debate on the 1974 housing bill that condominium problems "are among the most pressing consumer problems in the nation." Rosenthal noted that the Housing and Urban Development Department has predicted that half the population may be living in condominiums in 20

"Yet fewer than 10 states have meaningful laws protecting purchasers," he said, "and not more than two or three have laws to protect tenants displaced by conversions."

HUD: Wait and see. Government agencies are also investigating condominiums. Under the 1974 housing law, HUD must report to Congress on a year-long study of condominium problems. The inquiry, under Assistant Secretary Michael Moskow, isn't likely to satisfy Proxmire and others who see regulation as urgent.

Housing Secretary James Lynn, representing both the Nixon and Ford administrations, is basically against moving HUD further into regulation of any part of housing. His department reluctantly cepted responsibility for regulating the safety of mobile homes. It's a good guess that HUD's report on its study of condominiums will be devoid of any rush to regulate.

FTC's inquiry. The Federal Trade Commission has a fullscale investigation of the condominium industry under way.

The study follows hard on a preliminary investigationin Florida—that primarily turned up numerous abuses and triggered widespread newspaper coverage. Recreational leases and management agreements deemed unfair to buyers were found to be common. The lack of full disclosure, the FTC reportedly found, stemmed from the absence of effective governmental regulation.

'Stronger measures.' The FTC could move in several directions-by filing cases against offenders charged with breaking existing law, by recommending legislation, or by creating rules of practice for the industry.

In a statement to the Senate Housing Subcommittee, the FTC staff said "stronger regulatory measures may be necessary to provide full protection to consumers." The 25-page statement analyzes both the Biden and Proxmire-Brooke bills-and then suggests these five other legislative provisions:

- The right of buyers to press claims (against a developer or seller) should be explicitly recognized. (Such a provision is written into Virginia's regulation law.)
- Long-term arrangements that give the developer a financial interest in the condominium after the units are sold should be prohibited.
- · Incentives to encourage accuracy of projected cost estimates should be included.
- · Deposits should be required to be kept in escrow ac-
- · The "core terms" of the complex legal documents that contain all the terms of the condominium purchase should be listed on a one- or two-page abstract to facilitate buyer comprehension.

Builders' opposition. In a statement to the Senate committee at the October hearings, Hunter W. Wolcott of the Florida Home Builders Assn. argued that the "propriety, responsibility and necessity" of federal regulation had not been clearly demonstrated.

The National Association of Home Builders took the same line a month later. In a letter to the Senate committee, President Lewis Cenker of NAHB said the need for federal intervention into "matters which are essentially responsibility of the states" had not been shown. He contended that the proposed reporting requirements "would drive up the cost significantly" of the 230,000 condo units projected for next year-16% of all housing starts.

Regulator's advice. witness with the most experience in condominium regulation-David Clurman, assistant attorney general of New York state-said the senators "should not be dismayed with the host of real estate professionals who will no doubt urge that government regulation in this field will deter construction of new housing or the needed rehabilitation of older housing."

Clurman said that New York's regulation, which began in 1961, is tougher than the proposals in the bills the committee was considering. "Nevertheless," he said, "some federal regulation will help New Yorkers" who are "bombarded with condominium offerings" from outside the state-and who then buy while they are outside the state.

Regulation's benefits. On conversions, Clurman said that, since 1961, some 120 buildings have been converted to condominiums in New York-but that some 1,000 additional buildings would have been converted in the absence of governmental regulation in New York. Hundreds of landlords, he said, never try to register with the Attorney General "because they couldn't stand the flood lights of disclosure '

Washington experts count only four or five state laws as having any significant regulatory effect on the condominium market. New York's is rated the toughest; Virginia's new law is highly praised by most industry spokesmen but is already being revised; Florida's law is described as comprehensive, but it gives the state's agencies no enforcement powers.

-Don Loomis McGraw-Hill World News, Washington



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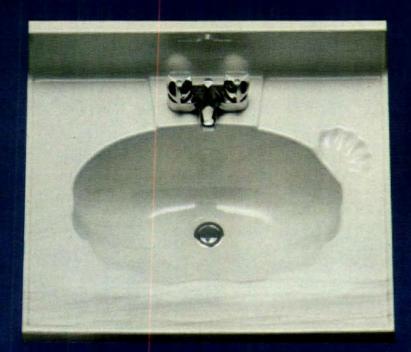
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CIRCLE 12 ON READER SERVICE CARD

Many new towns on brink of failure; U.S. rushes rescue money

Bankruptcy is a specter that now haunts many—if not most—of the developers of the 15 federally sponsored new towns.

Last minute re-financings have given some of the most precarious another lease on life, but one or more foreclosures seemed probable as the towns entered the new year.

The millstone is the same that has sunk other developers involved in major projects. The shortage of mortgage money for home purchases has nearly shut off cash flow the developers need to carry the huge charges on their debt. Interest payments are eating them up. Even Woodlands, near Houston, which got a \$50-million loan guaranty, was being refinanced at year's end.

Riverton's reprieve. Riverton, the new community near Rochester, N.Y., actually did close its doors for a week in November when negotiations for \$4 million more in HUD-guaranteed loans collapsed. A HUD-Riverton deal was signed, bringing in new management and providing enough cash to keep the project going.

This round of re-financing, however, may not be enough to save those towns on the thinnest financial ice. And an upturn in the supply of mortgage credit and a revival of the market for new homes, if it doesn't come by next summer or early fall, may be too late.

Housing Secretary James Lynn and other Administration officials have kept their cool and their distance from the program. The only significant change in Washington has been the appointment of Otto G. Stolz as chief of HUD's new communities program to succeed Alberto G. Trevino Jr., who held the job for 15 months. Stolz is given good marks by developers for speeding up the pace at HUD. But his assignment from Lynn, he says, is only "to see if this thing can be run right.'

Crash program. Stolz' job is to negotiate—mostly on a crash basis—the re-financing for the new towns that need money to keep afloat. This typically involves an effort to get owners to contribute more equity and private banks to make more loans in return for HUD's approval of another issue of govern-

ment-guaranteed bonds.

The HUD headquarters has eased the pinch for several towns by paying the interest due on bonds already outstanding. Also, the new-community bonds are now being picked up by the Federal Financing Bank, an arm of the Treasury. This makes possible a lower interest rate (most recently 8.55%) than would be possible if the developer floated the bonds on the money market.

Lynn's stand. Lynn has given no sign that he or anyone else in the Administration favors the use of grants and other financial aids that are available to bolster new towns under the New Communities Act and the Housing and Community Development Law passed by Congress last year. Speculation has it that Lynn may be shifted to the Budget Bureau to succeed Roy Ash—a prospect that gives the new-town developers the shudders. He would then have even tighter control over the federal

The House and Senate have shown little inclination to battle for more help for new communities. There may be hearings this year, but that's not certain. There is a big political question that doesn't break into the open but which is well understood: Why should tax funds be used to help these favored developers when government policies are driving other developers by the dozens into bankruptcy?

A bail-out pact. At Riverton, Howard Samuels, the New York multimillionaire - politician who is an investor in the development, moved in as chairman and chief executive when—according to a company statement—Riverton Properties Inc. "was faced with almost immediate bankruptcy."

The deal that kept the project afloat includes a) the \$4-million of Riverton bonds to be purchased by the Federal Financing Bank for later sale on the money market; b) \$1 million of additional equity from the Riverton shareholders; and c) a \$1.1-million credit from the banks that have been providing shortterm financing. It also includes a guaranty that the shareholders will maintain a minimum ratio of cash to expenses and will ante up more money if the revenue or nearly exh ceeds of the ment-guarante Among those culty last mone near Minneapolis; Financing Side, the new-Minneapolis; Financing Chicago near Rochester Dayton, has reported by the first \$18 million of bord the first \$18 millio

projections in the three-year financial plan fall behind expectations, according to Riverton officials.

This requirement can be met by the stockholders themselves buying back land from the development's inventory.

Cut in low-cost units. There were other significant changes in the Riverton agreement.

The life of the project was extended two years, to 1990, and the required percentage of lowand moderate-income housing was reduced from 40% of the 8,010 dwelling units to 25%.

Much of the new financing for Riverton was applied to meet existing debt. According to sources both inside and outside HUD, Samuels may find himself knocking on HUD's door before 1975 is out for the remaining \$7 million in guaranteed loans that HUD has committed to Riverton. This would bring the total to \$23 million.

Borrowing on land. At Woodlands, another federally guaranteed bond issue is impossible. The developer has already issued \$50 million of such bonds, the maximum permissible per project under the law.

Since more financing is needed, Stolz and the developers have been negotiating a re-financing that would enable the developers to use some of the land—less than 5%, Stolz says—as collateral for another \$15-million private loan. To make this possible, a HUD-approved reappraisal of the project's land values was undertaken. The value of the remaining land will somehow be found sufficient to meet the requirement of 110% collateral for the HUD-approved bonds.

Roll call of trouble. Another half dozen of the 15 approved projects have either exhausted or nearly exhausted the proceeds of their first government-guaranteed bond issue. Among those in financial difficulty last month were Jonathan, near Minneapolis; Cedar-Riverside, the new-town-in-town in Minneapolis; Park Forest South, near Chicago; and Gananda, near Rochester. Newfields, near Dayton, has recently sold \$14 million of bonds in addition to the first \$18 million sold in No-

In November the General Ac-

counting Office issued a blistering report on its investigation of Jonathan, Park Forest South, Riverton and Flower Mound, near Dallas.*

Criticism. "The financial projections the four developers submitted to HUD," said the GAO, "did not show that enough money would be generated to retire the guaranteed bonds nor did they contain all the information HUD needed to determine whether the projects were financially feasible."

The GAO found that none of the four projects was meeting its forecasts of sales and costs. Riverton was unable to provide any support for an estimate of \$6.2 million of administrative costs and, because HUD did not require developers to revise their financial projections periodically, it was not fully aware of the financial difficulties the developers ... were encountering."

After listing other deficiencies in HUD's administration of the program, the GAO report noted: "HUD generally agreed with GAO's recommendations and outlined corrective actions under way or planned."

New applications. The GAO did recommend that "if Congress wishes to encourage new-town development, it might consider increasing the present \$50-million loan-guaranty limit and providing additional tax incentives to industry to locate in new towns."

Despite the rugged outlook for the program, Stolz still says he expects to approve "some" of the six new-town applications still in the HUD pipeline.

Four have been in the pipeline more than two years.

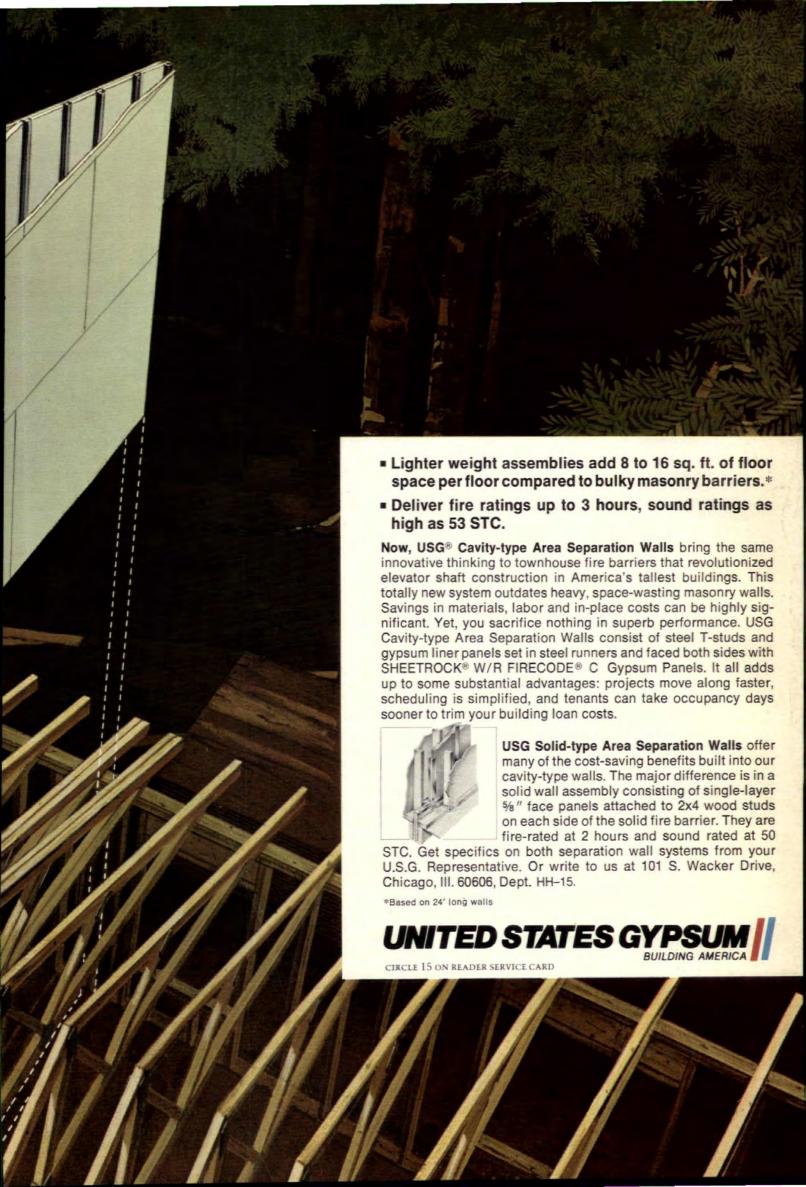
One industry source suggests that West Valley near Chicago and Oak Openings near Toledo "will never see the light of day." Ponchartrain, near New Orleans, may be approved, this source suggests, since the city of New Orleans has a big stake in it, but Tree Farm, near Pensacola, has no more than a 50-50 chance of approval.

—Don Loomis McGraw-Hill World News, Washington

^{*}Getting the New Communities Program Started B-170971, for \$1 from 4522 GAO, Washington 20548

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Big banks and Wall Street turning backs on realty investment

Housing's financial problems compound.

Not only are market borrowings by the federal housing agencies getting so massive as to create more trouble than they are worth, but big private lenders outside the mortgage sector are turning leery of the whole hazardous real estate

Last year's shattering of the building boom and, with it, the collapse of the government's 26million housing starts target have left a bitter taste all along Wall Street.

Back when the decade opened, prestigious private lenders from pension funds to top moneymarket banks had been dragooned by Washington into supporting the housing goals. They also sold themselves on the prospects for return offered by the ensuing housing boom. Recalls one source:

"There was a mystique about land as the last hedge against inflation-the goose that laid the golden egg."

The rush to invest. Two years ago, growth-minded bankers from coast to coast were rushing to acquire "counter-cyclical profit centers" in the shape of mortgage companies and to sponsor real estate investment trusts (REITs) to handle the venturesome. high-yield struction loans.

But now, it turns out, a consequence has been the deepest housing decline of the postwar era. And the damage has been concentrated in multi-family income properties, the very investments that had seemed to offer so much gain to the new breed of blue-chip plungers.

And so, with scar tissue showing on all sides, influential voices on The Street are daring to be far more critical of the real estate sector.

A warning. Typical of those who pronounce mortgage as if it were a dirty word is Sidney Homer, a partner in Salomon Brothers, the New York City bond brokerage. Homer charges that the government's coddling of housing has stripped the bond market of funds for more productive industries, and he

"We can have lots of housing or lots of power and productivity-not both."



SALOMON BROTHERS' HOMER 'Housing ... or productivity'

Salomon has come out of the real estate bust a lot better than the big banks, which have been hit very hard by the failures of building companies.

Especially on the Eastern Seaboard and in the South, a whole regiment of prominent banks made disastrous calculations at the start of last year. They figured that they could finance a rapid expansion of real estate with money-market funds borrowed in New York. When money-market rates leaped instead of going down, as bankers expected, bank earnings were squashed in a way that has left some institutions reeling.

Bank failure. The most visible real-estate banking casualty so far is the American Bank and Trust of Spartansburg, S.C. Harry Keefe of the New York investment banking firm of Keefe, Bruyette & Woods tells what happened:

"Speculators paid a premium price in buying farm land and used it as bank-loan collateral. Then real estate choked on high interest rates. When they couldn't get more financing, the speculators told the bank, 'Take the land back.' But they had paid 50% more than the land was worth as farm land. The bank went bankrupt."

Altogether, loan-loss chargeoffs by banks for tax purposes may have come to a record \$2 billion in 1974, with real estate losses suspected of being the largest single contributor. And, adds a respected New York bank stock analyst, the 1974 losses "are only the tip of the iceberg." This year, he thinks, will be

New caution. With the fate of Franklin National fresh in mind, bankers are understandably eager to improve liquidity.



SECURITY PACIFIC'S O'BRIEN 'The industry is depressed'

They are in no mood to give real estate special consideration.

Says Paul O'Brien, senior vice president of Security Pacific National Bank in Los Angeles and chairman of the American Bankers Association's housing division:

"Bankers are being very prudent on new loans in the real estate area. We all know the industry is depressed."

Even Comptroller of the Currency James Smith has so far broken with the official promotion of the housing market as to warn an audience of bank credit officers against acting "too casually in the construction field."

'Playing down.' John Bunting, president of First Pennsylvania Corp., who pushed and publicized the real estate endeavors of this bank holding company while the housing boom was cresting two years ago, is unrepentant about the basic decision to go ahead. But First Pennsylvania reported a \$3million real estate loss in the September quarter, and Bunting now admits:

"We're playing down real estate operations.'

All sources agree on one point. No wholesale withdrawal is contemplated from the banks' role in providing construction supplying long-term mortgage credit, extending credit lines to mortgage bankers, and buying almost half of the Federal National Mortgage Association's debt issues.

\$10 billion to REITs. Retrenchment in the areas that have hurt banks most is another matter, however. The hardest decision bankers will have to make this year is whether to keep propping up mortgage trusts that otherwise will fold. Bank-loan exposure to

REITs ranges up to \$10 billion.

Bankers have to ponder, on the one hand, the warning of a mortgage-market source:

"We've had the builders go. If the REITs go next, there will be a domino effect."

O'Brien maintains that banks and REITs "are in the same canoe" and that only one or two of the latter are apt to lose bank support.

Worry in Washington. On the other hand, a Washington official is skeptical. He wonders, how long banks can continue to stand the gaff if last year's effort to shape up REIT loan portfolios still leaves trusts as pensioners of the banks.

And if banks do keep putting money into REITs, adds another government source in the capital, "banks are in a position where funds of their own have to be diverted to help REITs, making it hard to put money directly into real estate. This means a double-counting of the negative influence of REITs."

Other cutbacks. Loans to REITs aren't the only candidates for cutting back. The 1970 Bank Holding Company Act gave banks a green light to buy or set up affiliated companies providing realty financial services of various kinds. At the time, these were eagerly desired by bankers. Now, though, a banker speaking with painful hindsight comments: "The things banks are allowed to get into are the ones that typically suffer when the bad times come."

The associate director of economics for the Mortgage Bankers Assn., Philip Kidd, warns:

"We will see bank holding companies cutting loose some of their affiliates in 1975."

New bid to banks. Yet in the long run, bankers continue to assert, their role in real estate lending will expand rather than contract.

They count on implementation by Congress of the Hunt Commission's proposals.

These recommendations would end the specialization of the traditional mortgage lenders and replace it with a new tax incentive, available to any institution that writes a mortgage. Says an industry source:

"Once that happens, it will be a new ball game in the mortgage



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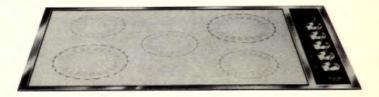
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Mortgage interest is falling, but interest in buying wavers too

The deepening recession is softening mortgage rates and making more money available for loan commitments—but it is also scaring some buyers out of the housing market.

The onset of cheaper long-term money for housing was underscored and aided by government policy as early as November, when the Department of Housing and Urban development cut the rate ceiling for mortgages insured by the Federal Housing Administration. The cut, from 9½% to 9%, was the first downward movement of the FHA rate since a short-lived reduction of one-quarter point decreed last January.

Conventional rates. Housing Secretary James Lynn also reduced the interest rate from 8.5% to 8.25% in the federal



Fannie Mae's Schwartz

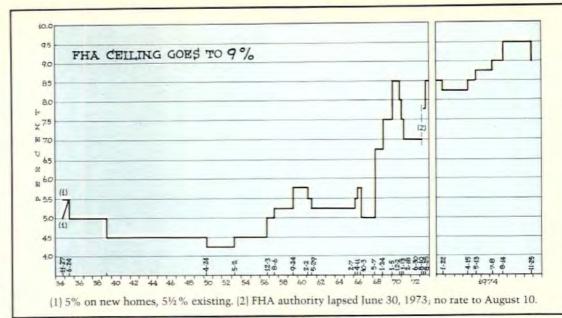
Down again—maybe this month

plan for purchasing conventional mortgages. By reducing fees and other charges, Lynn said, the effective rate to home-buyers would be cut to 8.895% from 9.92%.

How much lower mortgage rates will go depends on how far the Federal Reserve permits the recession to proceed. The Fed's course is intended to shake inflationary expectations out of the long-term credit markets.

Rates and points. The November action on the joint FHA-Veterans Administration rate seemed in step with easing market rates. It appeared that lenders, even initially, would charge only two or three discount points on the FHA-VA mortgage price to bring the overall return, including the new 9% yield, in line with slightly higher market yields on mortgage paper. Later, as the market came down more, these points were expected to ease again.

The HUD office acted after rates in the FHA secondary mar-



ket and yields on conventional mortgages had dropped roughly half a percentage point from late summer peaks.

By the end of November, some savings and loan institutions were making prime-customer loan commitments with a yield as low as 934%, according to Federal Home Loan Bank Board surveys, though most of the largest institutions were still hanging back above 10%. The FHLBB puts the 1974 peak at 10½%.

The Federal National Mortgage Association's chief economist, Harry Schwartz, sees a chance that the FHA-VA rate may be lowered again soon perhaps this month. Says Schwartz:

"When you shoot at a moving target, you lead it."

Cause and effect. The late 1974 decline in long-term rates, however, was largely a by-product of a sharp plunge in short-term rates. This, in turn, occurred because financial markets overestimated the central bank's willingness to switch massively to monetary ease to beat off a recession.

With the Fed, in actual fact, grudging in shifting its stance, and loan demand firmer, short rates lately have tended to fluctuate rather than to continue an uninterrupted downhill slide. Equally important, with the inflation rate still hovering near double-digit levels, lenders are resisting further declines in long-term interest rates just yet, no matter what short rates do.

So, adding up the outlook con-

servatively, Executive Vice President Oliver Jones of the Mortgage Bankers Assn. expects to see the FHA-VA rate fall a bit further by mid-1975, to 8¾% or 8½%. He also thinks conventional mortgage yields will have fallen to 8¾% by that time.

Eyes on the Fed. Beyond midvear the outlook is obscure. Everything seems to depend pretty much on how the Fed reacts to a slump that some economists suspect could rival the year-long inventory correction of 1921-2. A more expansive fiscal policy is being rushed to stimulate the economy, but observers in the credit markets write this off as already too late, given the time lags involved, so far as arresting the economic shock is concerned. Only Arthur Burns and the Federal Reserve can react expeditiously enough, they think. If the Fed pulls out all stops to ward off the worst of the recession, reviving inflation fears could mean longterm rates will be back up to 1974 levels by the end of 1975.

Says Jones: "Nobody knows how the Fed will react, so you can't predict beyond mid-1975."

Unemployment. By the same theory that an easy monetary policy fuels inflation, so any real effort at tightening the monetary policy is believed to increase unemployment. The jobless rate could climb if the Fed tightens up—and some financial analysts look for an unemployment rate as high as 9%.

That might bring mortgage rates down, but it would dampen housing demand. Jones expects to see an improvement over the 1974 volume of housing starts "but not a big reversal such as we've had in the past buyer confidence is not there."

Other elements also suggest that the 1975 mortgage market will largely mark time, awaiting the return of better days.

The S&Ls. Deposits were flowing back into S&Ls as winter began, but the S&L industry is expected to use a lot of the early inflows to pay off some \$15 billion in advances (loans) from the Federal Home Loan Banks to bulwark S&L liquidity. Some experts expect it will be summer before S&Ls feel cushioned enough to crank up mortgage production. A dissent on this view comes from James Davis of the Northern California Real Estate Research Council in San Francisco. "The S&Ls definitely are seeking business," Davis says.

He thinks they are eager to respond to a Bank Board request to give new mortgages priority, and he adds: "That could soften rates a bit."

The Ford administration may take fresh actions specifically aimed to make more mortgage funds available if S&Ls prove balky, since a housing recovery is essential to Administration plans to arrest the economic slump. But the non-subsidized private-mortgage market basically seems to face a bleak and uncertain year, even if mortgage money gets somewhat cheaper.

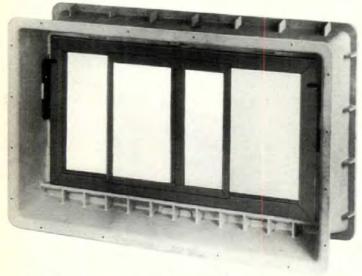
—Stan Wilson McGraw-Hill World News, Washington



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Housing has survived worst bust in 20 years; boom is due in '76

was universal but it was steepest in the Florida markets that had led the national boom in 1973 and even early in 1974.

A quarter of the entire housing decline since midvear was concentrated in Florida and half of that was in the single market of Miami-Fort Lauderdale.

The Florida decline differs from that in the rest of the country in that it reflects a saturated market more than the shortage of money.

No real pickup is in prospect for the rest of the country before the third quarter of 1975; none for Florida before 1976 or 1977.

These are conclusions of Advance Mortgage Corporation's economic research bureau, which has just reported on housing activity in the third quarter of 1974. Advance, with headquarters in Detroit, is a subsidiary of Citicorp, New York City.

Bottoming out. The Advance forecasters predict that private housing starts will total about 1.35 million for 1974 and only 1.5 million for this year.

Their estimates call for a return of the housing boom in 1976, however, with 2- to 2.25million starts.

Last year's slump was the most pervasive in at least 20 years, the Advance bureau says. Of 20 major markets it surveys, only one, Seattle, emerging from a four-year recession in its aircraft industry, showed an increase in permits for the first nine months. The Dallas-Fort Worth area ranked as the nation's second most favorable major market because its decline through the first nine months was only 12%.

But Florida-Even in that context, the Florida experience was special.

Just as the boom of the last three years in the Miami area and in Florida in general has been the most spectacular in U.S. history, the downturn there since mid-1974 may well be the most abrupt on record. The only comparison is with the Los Angeles-Orange County market in California. It hit even higher numbers than the Miami area (But not per capita) in 1962-64. then plunged to a third of the 1964 rate in 1966 and 1967.

Overbuilding. "It's a classical case of overbuilding in response

Last year's decline in housing to phenomenal demand," says President Irving Rose of Advance

> "But saturation in the Florida markets happened to coincide with a lot of other problemsthe energy crisis, tight money, inflation and, in south Florida, the steepest employment decline in the country. Their heavy reliance on condominiums makes these markets especially vulnerable in a credit crunch.

"Demand is still phenomenal. Florida is still attractive to more people than any other state. Even a depressed market here is more attractive than a boom market in most other regions. But it may take two years or more to work off the oversupply in many areas."

Apartment debacle. The decline in annual rate of permits between the first half and third quarter was nearly two and a half times as great in the state of Florida (52%) and three and a half times as great in MiamiFort Lauderdale (68%) as in the rest of the U.S. (20%).

Of a national decline of 333,-000 permits (in annual rate terms) between the first half and third quarter, 96,000 permits of the decline were in Florida and 45,000 in Miami-Fort Lauder-

In the apartment sector, the trend was even more striking. A third of the national decline in apartment permits in the third quarter was in Florida, with half of that in Miami-Fort Lauderdale. On a per-capita basis, the slowdown is 12 times as severe in Florida and 24 times as severe in Miami as in the rest of the country.

Loss of momentum. Through the first half of last year, as in 1973 and 1972, the Florida markets were booming at several times the per-capita construction rate of the rest of the country.

In fact, Miami-Fort Lauderdale is already virtually certain to come in as the nation's largest housing market for 1974, as it was in 1973 and 1972.

But in the third quarter, Miami-Fort Lauderdale was superseded by Phoenix as the hottest major market (in percapita terms). It fell to fourth place in number of permits issued in the third quarter, behind Los Angeles-Orange County, Chicago and New York.

The long Florida boom ran down in August and sputtered out in September. Only 730 permits were issued in Miami-Fort Lauderdale in September, compared to a nearly 4,000-a-month average in the first eight months and an 8,000-a-month average in the previous two years. Fourthquarter activity will be at a standstill.

Outside Florida. One other major market has suffered a Florida-like downturn. Recently booming Atlanta's third quarter was 58% under the rate of the first half, and the 9,700-permit annual rate was under 25% of the average rate of 1971-73.

Florida's housing boom fizzles in a glut of condominiums

A number of factors contributed to the downturn in housing construction in Florida last year, Advance Mortgage Corporation's economic research bureau

In 1972-73, building activity, especially in condominiums, went far beyond even the phenomenal local demand, the hottest in U.S. history. Miami-area permits hit the incredible annual rate of 48 permits per 1,000 population, and about 60% of those permits were condominiums. Builders were racing potential environmental restric-

Most of those units came on market in late 1973 and last year. That would have caused an oversupply under the best of conditions.

Tight credit. Florida lending institutions, which suffered hardly at all in previous tight money periods, were extremely hard hit in the credit crunch that began last fall. Over the past 12 months, they have issued a minimum of commitments to builders and have hiked down payments in the big second-home market to a minimum of 40%.

Many units were completed without mortgage commit-

ments and then buyers found mortgages were almost unobtainable from local lenders. Condominiums, especially new condominium projects, were the hardest hit because most lenders will not close a condo loan until 50% of the units in the project have been sold.

Loss of buyers. Two of the principal buyer groups for Florida condos, early retirees and second-home buyers, were reduced by inflation and the energy crisis.

The third buyer group, locally employed households, has been hit by the economic downturn. The Miami area is suffering probably its first net job loss since World War II-a net loss of 15,000 jobs a year compared to a growth rate of 30,000 jobs a year at this time in 1973. The 2% negative growth rate is the most unfavorable of any major market. The slump in construction was a big contributor.

Speculation. A large proportion of 1972-73 condo buyersby some estimates as high as 25%-were speculators, buying into buildings under construction in hopes of profitable resale on completion. This year, they are canceling out or are offering their units in competition with the builders.

The problem, especially in south Florida, is almost entirely a condo problem. One-family homes have sold well and, except in isolated areas, there is no oversupply. Rentals are in short supply in south Florida.

The Advance research bureau estimates there are 25,000 to 30,000 unsold condominiums in Miami-Fort Lauderdale, with 1,000 being added each month.

In Dade County, there are more than 6,000 units in declared condominiums in which no sales have been closed for any unit, according to local economist Charles Kimball, and another 3,000 units in foreclosure.

Conversion to rentals. Many small condominiums (under 1,000 square feet) are converting to rentals with option to buy. This option, however, is not as readily available to large condominiums, because the rentals obtainable will not cover their construction-loan payments.

Even builders who sold well have had problems. In some areas, inflation hiked costs so high above pre-sale prices that builders could not afford to complete their projects.

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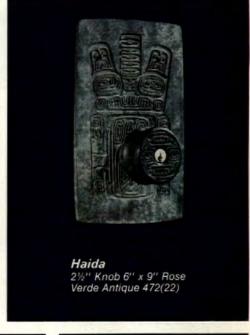


Florence 2¼" Knob 2½" x 17½" Rose Bright Brass Blackened 610(7)



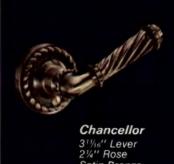
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Builders lose a round in fight against land-donation ordinances

Naperville, a suburb of 30,000 people 40 miles west of Chicago. thinks homebuilders are playing the role of Don Ouixote in their attempts to overturn ordinances that require builders to donate land for parks and schools.

Further, a Du Page County circuit court has just agreed with the city fathers. It has rejected a suit by the Home Builders Association of Metropolitan Greater Chicago that sought to have Naperville's land-donation ordinance declared unconstitutional

Said the city: "The plaintiffs repeatedly tilt at fanciful arguments, alternately mislabeling our (land-donation) ordinance as a tax, a special assessment, a special taxation, a license fee and a taking of property. The true nature of the ordinance is, however, the exercise of the city's police power-enacted to regulate land use and to cope with some of the complex physical, social and fiscal problems attendant to the extraordinary population growth the city of Naperville has faced and is now facing."

Appeal. Undaunted, builders association is appealing the decision and is prepared to take the case to the state supreme court. Executive vice president Herschel Farr insists:

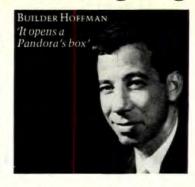
"This is land confiscation without due process and the law says you can't arbitrarily take property from anyone without that due process."

Farr says that northern Illinois homebuilders and the Chicago association sued because "the builder has to include the cost of the donation in the cost of the home and, with the current price of houses, we had to stop someplace."

President Jack Hoffman of the Hoffman Rosner Corp. is chairman of the association's sustaining council, the group responsible for the suit. He puts the case this way:

"Naperville was the first community in the area to institute an arrangement of assessing builder-developers on a per-unit basis for school and parklands. This ordinance has spread to other communities in the Chicago area and it's affecting our business."

Pass-on costs. Hoffman admitted that builder-developers



do bring great numbers of people into rural areas, but he argued:

"People tax themselves. The builder shouldn't be building fire stations, police stations, hospitals or schools. These are all community facilities and the community's responsibility. If in effect we pay for the school. what do we do? We make the cost a part of the cost of the house, then a mortgage is gotten, and the buyer ends up paying for over 30 years for a school that shouldn't have been his in the first place."

What's more, Hoffman said, while the ordinance is meant to control the big builder, it also adds to the cost of small builders who have little impact on a community.

"It really opens a Pandora's box," he contended. "Every different kind of district might want the builder to contribute something-and you have the storm drain district, the mosquito abatement district and others all trying to hit the builder at the beginning."

Builder profits. Despite the contention that mandatory donations make for more expensive houses, the city poohpooh's the idea that the builders can't afford to absorb the donation costs themselves.

Raw land that was purchased in the city for \$2,000 an acre in 1959 had shot up to \$6,500 some seven years later, the city says, netting a profit of over \$300,000 for a builder who sold off 70 acres. And, the city claims, that same land had increased to \$27,-000 an acre, improved, a few vears later.

"While the latter sale was of land improved with the required subdivision improvements, and is not directly comparable to raw acreage prices, it demonstrates the potential profits to be made through subdivision,' said the city.

Acres per person. Assistant City Manager Gregory Bielawski said Naperville adopted the ordinance in 1971 to cope with builders who were changing the character of the city.

We developed a formula for the donation of sites that reguired a minimum of 5.5 acres of land for each 1,000 persons in a development. In addition, we require a 600-capacity elementary school on each 11 acres of land, a 900-capacity junior high on each 19 acres and a 2,300-capacity senior high school on each 48 acres."

Bielawski says the city does reduce the impact of the ordinance if builders build private recreational space into developments-"but only if the developer guarantees that these private recreation areas will be completely equipped and permanently maintained for such use by the execution of appropriate legal documents."

Hoffman and the association want communities like Naperville to turn away from legislation and sit at the bargaining table to decide on what builders can do to control the impact they have on developing areas. But Bielawski said that acre-byacre negotiations would bog the whole process.

"With the ordinance we've been able to maintain a ratio of 9.9 acres of dedicated open space for every 1,000 of population," he said. "The national recommended standard is 10 to 11 acres per 1,000. Without the ordinance we would never have been able to achieve 9.9."

According to Naperville, 14 other communities in the Chicago area have subsequently adopted land donation ordinances, still others are preparing to, and other precedents have been set in communities from New York to California.

says Farr of the builders association, "and we intend to pursue The city of Naperville

"So this is an important suit,"

agrees-and the fight goes on. -MIKE KOLBENSCHLAG

McGraw-Hill News, Chicago

S&L sues to upset Marin's open-space zoning

A challenge to a Marin County (Calif.) general plan has just been filed in U.S. District Court in San Francisco, alleging that the plan unconstitutionally restricts population growth.

In a suit asking \$4,930,000 damages, the American Savings & Loan Association of Beverly Hills charged that the county ordinance to rezone the company's land, adopted last May, destroys its market value for development and amounts to taking it for public use without compensation. The S&L says the ordinance "is an arbitrary, unreasonable and unnecessary means of preserving open space."

The property was rezoned in conformance with the land-use plan adopted by the county in October 1973.

Density reductions. The S&L said that rezoning of a 48-acre parcel on filled land at Strawberry Spit reduced the density so that the number of homesites was reduced from about 109 to nine. The association also said that an adjacent 20-acre parcel on Strawberry Point, one approved for 160 units, had been under interim zoning since 1973

and, in 1974, was zoned for allowable density of only 80 units.

The lawsuit says a major goal of the county plan is to "discourage rapid or disruptive population growth" and to set aside large areas for open space to allow Marin to maintain its rural character.

Echo of Petaluma. The Marin plan is unconstitutional, the S&L contends, because it indirectly regulates housing construction, thus involving interstate commerce. It also violates the constitution by invading the right of citizens "to migrate to other states and locations without artifical and unreasonable restriction," the complaint says.

While the situations differ, the constitutional questions are similar to those in the litigation involving the so-called Petaluma plan in northern California. Petaluma's rationing of permits for residential building, allowing 500 units a year, was declared unconstitutional by a federal district court. That case is now before the U.S. Court of Appeals for the Ninth District.

-IENNESS KEENE McGraw-Hill World News, San Francisco



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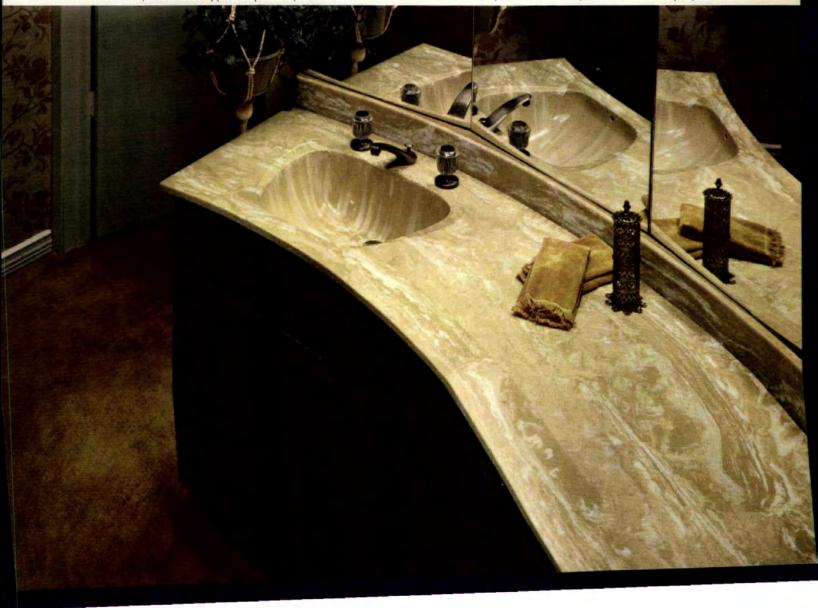
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Shakeout looms for France's builders, awash in apartments

There are the vagrant rumors of oil-rich sheiks buying up condominiums in Paris and on the Ri-

But the truth is rather different.

Brushfire inflation, credit and soaring interest rates have kept France's new apartment buildings empty and forced its homebuilders to scramble to cut back ambitious programs and tailor production to sales that slackened all through the last year.

There is starting to be a real shakeout in the homebuilding sector," says Claude Pux, president of Maisons Phenix, France's largest builder of prefabricated houses. "I know of over two dozen small companies that went bankrupt last year."

The statistics are eye-opening. Housing starts in France were down 30% in 1974, and the drop was as much as 50% in some high-rent, high-cost sectors of major cities and their suburbs.

Investors' retreat. The slowdown hit apartment sales last spring, when investors wary of high interest rates and tight money retreated.

British banking groups that invaded the French building market only a few years ago have faded into the woodwork," one French builder says.

By September, following the traditional August vacation period, the house building sector also turned down.

As one official of the Federa-Nationale des Constructeurs-Promoteurs, the association of French promoters that builds about half of the 140,000 apartment units in France each year, put it:

"The middle-class family that could buy a three-bedroom apartment can't meet the credit terms now because the price has gone up nearly 30% in the Paris region, for instance. Some families are renting apartments and using their savings to snap up small studios that they rent as an inflation hedge while they can still afford it.'

Mortgages: 16%. Much of the reason for the drop in buying is the high cost of mortgage money-up 50% in the last year to 16% to 17% on a loan.



NEW PARIS-AND OLD: Highrise units wait on buyers in Front de Seine project downstream from Eiffel Tower (above). Other highrises have been halted in mid-construction by slow sales (below, left). Old flats compete with both: Girl with bread strolls back street under 'For Sale' sign.



has raised the ceiting on qualifications for low-interest loans far more slowly than the rate of inflation, systematically eliminating more and more families. Beyond a fairly high pricesome say \$80,000-buyers either have the ready cash or the borrowing power to bear the high rates. But these buyers are increasingly fewer.

Prices and costs. "The government," says one builder, "considers homebuilding an inflationary industry and is limiting it indirectly."

Another builder concurs: "A year ago our market included people making as little as \$800 a month. Now these same buyers have to make more like \$1,200 a month.

Three bedroom, two bath In addition, the government room houses that sold for



\$44,000 a year ago are 12% to 15% higher; and because of the restrictions on credit, the number of people I can pitch to is even smaller.'

And costs. Construction costs too have risen-an average 25%—and prices of apartments have skyrocketed. In the Paris area the average price per square meter is well over \$1,000.

Tract builders seem to be hurt more than prefabbers, in part because of their higher prices.

Levitt's decline. The sales of Levitt France were down to \$14 million last year from \$16 million in 1973-a drop to 300 units from 400 units. Says Andre Lorent, the company president:

"I can see a further drop this year-to perhaps 250 units."

Higher unemployment, or the fear of it, is also a factor as the recession begins to take hold Lorent goes on to explain:

"A man who, three years ago would jump at the chance t trade up from his cramped olde house or even a cramped apart ment is staying put this year be cause he doesn't know when he's going to be next year."

K&B's strategy. Kaufman an Broad, which got into home building in France five years ago is seeing its growth flattened This year K&B expects no mor than to match last year's sales of 1,000 units-a far cry from ear lier expectations of 25% growth

What's protected K&B from sharp downturn is an aggres sively diversified land-acquisi tion program that took the com pany into growth-potential mar kets in the provinces. Early sale in widespread locations are making up for the downturn in traditional markets in Paris The company is launching new programs near Lyon and Mar seille, the two top industrial cities after Paris.

'Ride out storm.' Kaufman & Broad is keeping a low profile in the hope the slump will not last beyond this year. Says William Meeker, its president in France:

"There was a time when we were boosting production to keep up with demand. Now we're trimming output to declining traffic in the sales office, keeping cash in the bank, and running down our debt to zero.

"By keeping our break-even point as low as possible, we hope to ride out the storm. This way, when the interest rates start coming down and unemployment bottoms out, we'll be ready to catch the upturn. France is still in the early state of homebuying."

Government concern. A glimmer of hope began to appear towards year end. The government, frightened over the spreading unemployment in the building sector-which with the auto industry is the economy's largest employer-hinted it might put the construction and homebuilding sectors first on the list of priority industries for help next year.

Some are skeptical, though. Says one builder:

"The government wants a shakeout. Things are going to get worse before they get better." -MIKE SULLIVAN

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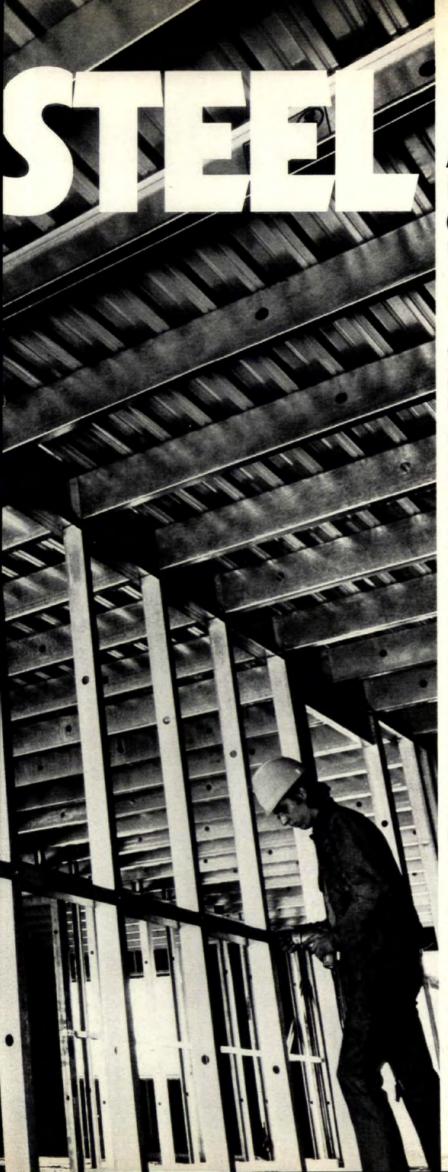
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CIRCLE 35 ON READER SERVICE CARD

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San Diego builders installing solar heating in 22-house project

The builders are putting the solar-energy system into new houses at a cost of \$3,500 to \$6,-000 per unit, depending on house size.

But the company claims its tests show the apparatus can save a house owner anywhere from 75% to 95% of his water and space heating costs.

The builder is Caster Development Corp of El Cajon. Its division, Energy Systems Inc. (ESI), is designing and installing the energy systems.

The 28-acre development, Vista del Colinas in El Cajon, has four-bedroom custom units priced from \$125,000 to \$200,-000. But ESI says its systems will also be installed in less expensive houses.

Lower price range. With seven of the 22 El Cajon houses built and six of them already sold, ESI is about to sign up for a second solar subdivision, this with 19 units in the Escondido area. The houses sell from \$65,000 to \$79,000. Then, in its next project, ESI expects to be down to \$49,000 houses.

In planning stages for a year, ESI was formed early in 1974.

Says President Terrence R. Caster: "When we got into the business, not many people wanted to talk about putting collectors on the roof. To get acceptability we felt we had to get into more expensive houses. Then, people with smaller ones won't object to it."

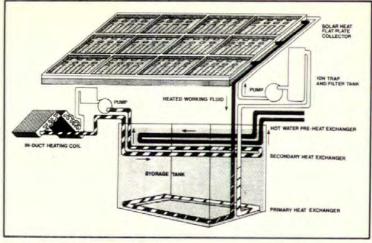
The division continues to research components and applications, and is completing a system for industrial and commercial buildings. It says it will begin marketing nation-wide (via franchise) this year.

Savings. Vice President Robert Gallagher of ESI insists that ESI's tests show the 75% to 95% saving can be achieved. "Our original goal was 50%," he says.

Caster says the average utility bill for the typical San Diego house is \$30 a month.

To prove just what is happening with utility bills, ESI plans to joint-venture with San Diego Gas & Electric Co. to install \$10,000 worth of heat measuring instrumentation in each house.

Costs. The ESI system costs vary with house sizes because heat collector panels and storage blocks must be designed to size



HOW IT WORKS: 1. Sun's light rays strike heat collector plates and are converted into heat, which in turn heats working fluid circulating inside plates. Note: Because it is not only sun's heat that warms fluid, but also the sun's light rays that are converted into heat, the system does not need a warm-weather location but merely an area where skies are usually clear.

Working fluid inside plates is piped through underground storage tank. Heat is transferred to standing fluid in tank.

3. Working fluid, having released heat on passage through primary heatexchanger pipes, flows back up into rooftop collector plates. Process starts all over again.

4. Heat stored in tank is distributed to house by two secondary heat exchangers (shown in tank's upper portion). One exchanger draws heat from tank and, using in-duct heating coil (on left) transfers that heat into homespace heat. Other exchanger heats hot water for use in home.

and location of the house and the amount of sun it gets.

Caster explains: "We're going to try an air-conditioning application on the next three houses. We have to get temperatures of about 185 degrees, but we're confident we can get this in our tank. And we think we're going to stay at about \$6,000 even with air conditioning."

Adds Marketing Manager Gary Beals: "We're talking about prototypes. Volume will bring costs down. We think we can bring the system in under \$2,500 for the average house."

Vista del Colinas houses have a conventional system to fall back on. Probably late this year, however, ESI will begin relying on a solar unit alone. The company will add a booster plant of

the boiler type to its system.

The workings. The division has designed both copper and aluminum heat-collector panels covered in glass. The panels convert the sun's rays into enough heat to raise the temperature inside the panels to 160 degrees.

Fluid circulating inside the panels is heated this way, and the fluid is then pumped to a basement storage tank where the heat is stored.

When heat is needed, a thermostat activates a blower that sends stored heat through the house. If more heat is requiredor when the sun hasn't been shining for a while and reserves are depleted-a conventional furnace takes over.

"With our storage tank we've built heat up to last a week to 10

to receive sun most of the year.

\$77-billion market. An inhouse architect for ESI uses different roof styles, including shakes and tile, and integrates collectors into the structure.

days," Caster says.

homebuilders.

Points for builders. According

"Roof weight load is only

about one pound per square

foot," says Beals. "Collectors

are lightweight, and nothing has

to be added to the roof-they fit

over where shingles would be.

Copper pipelines go inside the

Collectors are placed on a 30-

Caster

degree tilt, facing the sun.

They're about 24 feet square,

shouldn't even find it difficult to

design large tracts with rooftops

with 25 to the average house.

walls to the roofline."

Builders,

to ESI, solar energy shouldn't

bring any tough problems to

"In other parts of the country, where snow roofs are needed," says Caster, "you'd have to orient the house, or its sides, to hold collectors." Or, he says, collectors could be put in the yard, with pipelines going underground to the house. This system also would serve for refitting older houses.

Caster sees an annual market of \$77-billion for installing solar systems in new houses in the United States and converting existing houses to solar units.

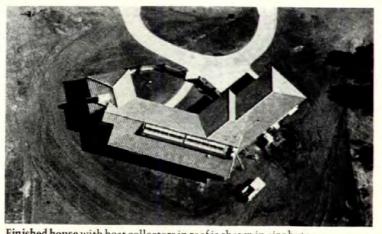
"The market is with the littleguy builder. And when we take something to him we want it to be as bullet-proof as possible. And that's what we're hoping to do with this first subdivisionget all the bugs out."

Worldwide plans. Caster feels the whole world is an eventual

The immediate market, as he sees it, includes people with allelectric houses, or in butane or oil areas, or in outlying places where they got cut off in the last energy crisis-plus people who just want to be self-sufficient.

Says Gallagher: "Solar energy heating is practical across a wide area. The requirement is ample sunlight, not warm weather. It's the sun's light rays that are being transferred into heating power, so a warm climate is not as important as clear skies."

-BARBARA LAMB McGraw-Hill World News. Los Angeles



Finished house with heat collectors in roof is shown in air photo.

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But the real proof is at Victoria Station.

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CIRCLE 37 ON READER SERVICE CARD



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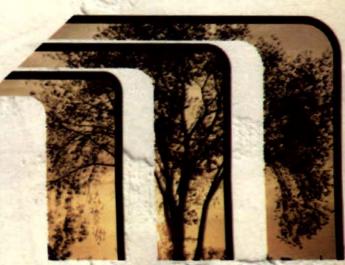
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Think of what it could mean to you.



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The extraordinary difference.

CIRCLE 39 ON READER SERVICE CARD

There were some events of 1974 that had a special flavor even for a year of ultra-tight money:

 In Florida, Arizona and Texas, builders completing their units and ready to close sales found themselves hit with unexpected discounts on their conventional mortgages, ranging up to seven points. In many cases, this converted what had been profitable projects into net losses.

● In California, the turn in financing came so suddenly that many sales couldn't be closed after the buyer had moved in. Conventional financing dried up almost completely for a time and the only FHA-VA financing was by lenders willing to take a loss of up to 3½ points on each loan. For months, virtually the only source of construction money was an eastern commercial bank.

 In Missouri, such few sales as took place, conventional or FHA-VA, carried up to 18 points of discount to the seller.

 In New York, conventional loans were available only to "customers with meaningful historic deposit relationships" with a minimum of one-third down.

 In Maryland there were virtually no conventional mortgages made for more than twelve months.

 In Illinois, through much of the year, most conventional lending was at 50% minimum down-payments.

 Builders in at least 14 states were barred from any benefit of the \$3 billion GNMA-FNMA conventional mortgagepurchase program by provisions in their state laws.

Correctives gone wrong. These horror stories are not illustrations of the effects of tight money per se. That alone would have been devastating enough. They are rather a summary of what happens when the extra constraints of state usury laws are piled upon a tightening money supply.

Even legislative attempts to soften the impact of usury laws turned into horror stories.

 Pennsylvania changed from a fixed to flexible usury law ceiling, set each month at 2½ percentage points above a federal bond rate index. This was a ceiling for loan commitments. But by the time of the loan closing, the commitment rate was far under the market.

 Illinois raised its usury-law ceiling three times in seven years: From 6% to 7% after the 1966 credit crunch. From 7% to 8% after 1969-70. And from 8%-9½% in July 1974. By the time the 9½% rate came, it was already far below the market. And the previous two changes came after that credit crunch had run its course.

 Virginia appears to have a model usury law. No ceiling, no restriction on fees. But it expressly forbids variable-rate loans, which are coming to be regarded as the salvation of the mortgage market.

 Each time a usury law is changed, an agonizing legislative battle seems to be required. And even that isn't always successful. In Missouri, both houses passed a bill to raise the 8% ceiling, which had applied to both conventional and FHA-VA loans, only to have it vetoed by the governor.

Extra turn of the screw. The usury laws intensify the harm whenever the housing market is already suffering from tight money, and they hamper attempts to rescue the market.

In easy-money times, the laws are virtually unseen. Thus in Florida, Arizona and Texas, interest rates never rose high enough to challenge the 10% ceilings—until 1974. Builders may not even have been aware there was a state usury law. Hence the unex-

pectedness of the mortgage discounts which put some builders in seriou jeopardy.

California at first adjusted to its 10% ceil ing—affecting only lenders other than bank or savings and loan associations, with discount points. But when some bankers wit mortgage-company customers expresse concern that points, even to the seller might be construed as part of the borrower interest payment, there was panic. Conventional lending halted and only a few hard mortgage bankers continued to make FHA VA loans—putting out money at 3 points of discount when it was costing them 6½ points from FNMA.

California banks and savings and loans which in normal times provide the bulk of the state's mortgage money, are exemp from the usury law.

But in summer of 1974, the exemp lenders were virtually out of the mortgage market. Nearly all the state's mortgage money was from out-of-state sources mostly FNMA, funnelled by mortgage bank ers—until the legal questions about point were raised. There is still no definitive ruling from the attorney general's office.

TO PAGE 4

CRAZY QUILT OF STATE USURY LAWS

Interest Ceilings							
8%-81/2%	9%-91/2%		10%	12%	Floating	16% to	None
Alabama Minnesota Missouri New York Ohio Vermont	Delaware Georgia Illinois Iowa New Jersey* North Dakota South Carolina	Arizona Arkansas California District of Columbia Florida Idaho Kansas Louisiana Maryland	Mississippi Montana New Mexico Oklahoma Oregon Puerto Rico South Dakota Tennessee Texas	Colorado Nevada Washington Wisconsin	Alaska Pennsylvania	Connecticut Indiana Kentucky Maine Massachusetts Michigan	North Carolina New Hampshire Rhode Island Utah Wyoming

Ceiling also covers FHA-VA	Ceiling covers corporations	Some lenders are exempted		ricts fees discounts
California	Arkansas	California	Colorado	New Jersey
Missouri	California	Colorado	District of	New Mexico
Nebraska**	Montana	Ohio	Columbia	New York
Ohio	Nevada	Oklahoma	Indiana	Pennsylvania
	Tennessee		Maryland	Vermont
			Michigan	West Virginia
			Mississippi	Wisconsin

^{*}Ceiling floats to 91/2% maximum.

Note: Usury laws contain numerous provisions, and interpretations change frequently. Complete accuracy of this table cannot be guaranteed at date of publication.

ROBERT J. MYLOD, EXECUTIVE VICE PRESIDENT, ADVANCED MORTGAGE CORP., DETROIT, MICH.

[&]quot;Covers VA: FHA is exempt.

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In Maryland and the District of Columbia, the 10% ceilings—raised, after much agony, from earlier 8% ceilings—allow no fees or discounts of any kind. Hence, lenders have felt unable to afford mortgages since the fall of 1973.

Thwarted rescues. The money-market salvage efforts of federal agencies are repeatedly hamstrung by state usury laws. Kenneth Plant, research vice president for the Federal Home Loan Mortgage Corp. (Freddie Mac), has reported that 80% of his agency's commitments in 1973 and 1974 were concentrated in five of the nation's 12 Home Loan Bank districts, in large part because the usury laws in the other districts were more restrictive. A similar pattern would be found in the Federal National Mortgage Association's operations. Laws barring discounts and fees are blocking application of the GNMA-FNMA plan-even in states that have no usury law ceilings. Variablerate mortgages would be hobbled by interest ceilings or restrictions on fees in at least two thirds of the states.

Disparity compounded. There is no consistency between state usury laws. That is one reason they do so much harm.

Usury-law ceilings this year range from 8% to 21%. In some half-dozen states, they apply to FHA-VA as well as conventional home mortgages; in the others, only to conventionals.

Some states do not consider discounts to the seller part of the interest rate. Other states specifically outlaw discounts and fees of various kinds. Some even outlaw origination fees and late payment fees. In most states, however, there is no specific language or official ruling on the treatment of points and fees, leaving a gray area subject to panic and confusion.

A half-dozen states exempt certain classes of lenders from their usury laws. Typically, these are locally-based banks or savings institutions. (In California, it is any bank or S&L, local or otherwise.)

Several states, the largest California, have the same usury-law ceiling for corporations as for individuals, thus making construction loans and income-property mortgages subject to the same constraints as home mortgages.

Timetable of damages. Usury laws appear to do most of their damage to local housing markets in the early months of a tightmoney period, before the credit crunch is all-pervasive, and again in the early months of recovery, when mortgage flows are resuming.

It's sometimes difficult to isolate the usury-law impact. This was particularly true in 1974, when there were so many other factors—environmental restraints, overbuilding and variations in local economies. But an instructive comparison may be made between Chicago and Detroit, Midwest markets with a minimum of environmental restraints, a minimum of over-building in one-family homes and about equally overbuilt in condominiums. Chicago in 1974

had one of the strongest economies in the Midwest; Detroit was hobbled by auto layoffs that had begun late in 1973. But Illinois had a usury law ceiling of 8% until July of 1974; Michigan has had no ceiling since 1970.

Over the entire first half, Chicago one-tofour family permits fell 47% from their fiveyear average; Detroit's fell only 25%.

In the second quarter of 1974, when a new round of disintermediation began, Chicago home permits fell 26% from their first-quarter annual rate; Detroit's increased by 7%.

And in the third quarter, when disintermediation grew more severe but Chicago's ceiling was raised to 9½%, the annual rate of Chicago home permits increased 23% over the first half rate and Detroit's declined by 9%.

Nationwide effect. In an earlier tightmoney period, the entire national decline in the first half of 1969, when home permits fell to the third lowest level since World War II, was concentrated in nine states where usury ceilings were 7½% or less. States with 7% ceilings had three times the composite decline of states with 7½% ceilings.

In the 13 states that had 8% ceilings, home permits increased 14% in the first quarter and, then, as interest rates kept rising, declined 2% in the second quarter.

Dun & Bradstreet cleared in mortgage-fraud case

The country's largest credit-rating company, Dun & Bradstreet, has won a full acquittal on charges of conspiracy and making false statements in connection with an FHA fraud that cost the U.S. government \$200 million in foreclosed mortgages in Brooklyn.

District Judge Anthony Travia granted the acquittal on motions by lawyers for the company and for Arthur Prescott, a former manager of its Long Island office in Hicksville, N.Y. Judge Travia presided over a ninemonth trial that ended in a mistrial for the company and Prescott in July [News, Aug. et. seq.]. The jury reportedly stood 10 to 2 for acquittal.

Back on job. Prescott, placed on leave when the indictments were returned in March 1972, has returned to full employment in another post.

The New York jury convicted five of nine defendants and acquitted one. It deadlocked on Herbert K. Cronin, a former chief underwriter for the FHA on Long Island, who is awaiting a new trial.

Among those convicted were Eastern Services Corp. of Hempstead, once one of the East's largest mortgage lenders, and its principals, Harry and Rose Bernstein.

The indictment said Eastern and various Brooklyn realty dealers conspired to submit false information on FHA mortgagors to Dun & Bradstreet and that D&B certified the information as true although the company knew it to be false.

These contrasts were muted later in the year as disintermediation became universal. (Interest rates and usury ceilings were lower five years ago.)

History. It's hard to find even a historical rationale for the usury laws affecting home mortgages. They do not appear to have arisen in response to any specific local abuse but rather as a carryover from the old English common law.

The concept of usury grew in the medieval church and applied originally to any form of interest. Usury-law provisions in more or less their present form were part of Queen Anne's Statutes, enacted in the 17th century. A lender's market area, in that day, might have been only a few square miles. This English law applied also in the American colonies and, when the first state constitutions were drawn, after the Revolution, they incorporated usury laws.

It is interesting that most of these original state usury laws had interest ceilings of 6%—ceilings that survived intact in most states as late as 1966.

A question of fairness. The laws are also lacking in internal rationale. What protection is afforded to borrowers, for example, when some lenders are permitted to charge whatever interest and fees they find necessary for home mortgages and other lenders are sharply restricted?

The truth is, usury laws are window dressing, retained for a token function. They are intended to be visible, without interfering with the workings of the mortgage market. When the ceilings do collide with market rates, they are—usually—modified, but only after long delays. By then, the damage has already been done.

I have been unable to discern any interest group that benefits by retaining usury ceilings. But there is inertia to be overcome in making any change, and there is political mileage in "restricting the moneylenders."

Some remedies. A few states have succeeded recently in removing all usury ceilings—though, as noted, not all other restrictions. These include Virginia, Michigan, and since April 1974, North Carolina. One strategy has been to remove ceilings temporarily, for a one or two-year period, to test what may happen in the mortgage market without their "protection." No adverse effects have been uncovered yet and Virginia's open rate was made permanent after two years. Michigan's was extended to 1977.

This is a strategy which deserves a concerted push by all segments of the housing industry in every state where usury laws prevail.

Perhaps a more effective strategy would be to work for a Federal law overriding state usury laws as part of some future National Housing Act. We recognize that credit is the key to the functioning of the housing industry and the fulfillment of the nation's housing needs. Clearly, one of the prerequisites to a smooth flow of housing credit is the removal of such artificial obstructions as the state usury laws.



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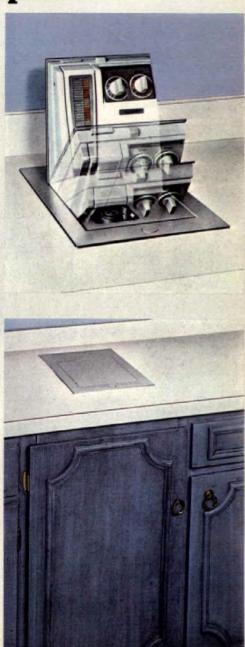


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	RONS DIFFERENT BY DESIGN AND BE	SON ETTER BECAUSE OF IT®

Housing stocks turn downward

The housing industry's minirally in stock prices ran out of steam as the year drew to a close.

After two months of modest gains, House & Home's index of 25 issues tumbled to 105.16 from 111.58 in the month ended December 3. Only the homebuilding companies, one of the five classes of stocks on the index, managed a gain.

Here's the graph of all 25

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20	105,16	

Here's how the companies in each division performed.

	Dec.'73	Nov.'74	Dec.'74
Builders	167	80	82
Land developers	116	69	64
Mortgage cos.	507	127	121
Mobile homes	290	379	355
S&Ls	105	85	78

S&Ls	1	05	85	7
Company		Dec. 3 Bid/ Close	Chng. Prev. Month	
BUILDING				
Alodex—d	ОТ	.062	063	
AVCO Comm. Develd	PC	1/2	- 1/a	
American Cont. Homes	OT	136	- 1/2	
American Urban Corp.—c	TO	3/8	- 1/8	
Bramalea Con. (Can.)-d	TR	4.25	+ 25	
Campanelli Ind. (New America Ind.)		11/4		
Capital Divers (Can.)-d	OT	.30		
*Centex Corp		434	- 7/1	
Cenvill Communities	AM	21/4	- 1	
Cheezem Dev. Corp.		1/4	- 1/2	
Christiana Cos.		3/4	- 3/16	
Cons. Bldg. (Can.)	TR	2.06	14	
Dev. Corp. Amer.	AM.	21/4	- 1/4	
Dev. Int. Corp.—d		.03	+ .01	
Edwards Indus.		134	+ 1/4	
FPA Corp.	AM	234	- V2	
Carl Freeman Assoc	OT	11/4	- 1/4	
Frouge Corp.—d		41/4		
General Builders—d		34	- 3/16	
Hoffman Rosner Corp.		136	+ 1/4	
Homewood Corp.		3	- 1/4	
Hunt Building Corp.	OT	1	- 1/2	
Kaufman & Broad		31/6	14	
Key Co.		13%	- 5/k	
Leisure Technology	AM	136	- 1/4	
Lennar Corp.	NV	3	- 56	
McCarthy Co.—d	DC.	7/8	- V4	
McKeon Const.	AM	11/4	14	
H. Miller & Sons		51/2	- 1/2	
Mitchell Energy & Dev.		1134	- 11/2	
National Environment (Sproul Homes)		1/2	- 36	
Oriole Homes Corp.—d	AM	51/2	- 1/2	
Prel Corp.—d		1	- 1/4	
Presidential Realty		41/4	- 11/8	
Presley Development		2	170	
Pulte Home Corp.		1	- 1/4	
F. D. Rich Hous.		1	74	
Corp.—d	OT	136		
Robino-Ladd Co.—d		1	- 1/2	
Rossmoor Corp.	AM	6	- 1/2	

Company	Dec. 3 Bid/ Close	1	Chng. Prev. Month	
• Ryan HomesAl	M 13%	+	3%	
Ryland Group O	T 3%	-	1/4	
 Shapell Industries N 		-	1/4	
Shelter Corp. of America O	T 1/e	-	Ve.	
Standard Pacific Al	M 2		1/8	
Universal House & Po	C .43	7 -	.063	
 U.S. Home Corp N 		-	56	
Valley Forge Corp O			1/16	
Washington Homes O		-	1/4	
Del. E. Webb N		-	Ve.	
Westchester Corp O		-	1/8	

SAVINGS & LOAN ASSNS.

American Fin. Corp.	OT	85%	+ 56
Calif. Fin.		21/8	- 56
Empire Fin.	AM	11%	+ 11/8
Far West Fin	NY	31/8	- 74
Fin, Corp. Santa Barb.	AM	5%	- 194
• Fin. Fed	NY	71/4	- 1%
+ First Charter Fin	NY	81/8	- 5%
First Lincoln Fin.	OT	176	
First S&L Shares	AM	61/4	- 21/8
First Surety	OT	2	- 7/8
First West Fin.	OT	13/4	- 1/4
Gibraltar Fin.	NY	71/8	- 2
Golden West Fin	. NY	81/4	- 7/8
Great West Fin	NY	131/2	- 1/4
Hawthorne Fin.	OT	5%	+ 1
 Imperial Corp. 	NY	6%	- 1
Transohio Fin.	NY	434	- 11/a
(Union Fin.)			
Trans World Fin.	NY	67a	- 1/4
United Fin. Cal.	NY	45%	- 114
Wesco Fin	NY	8%	- 1/4

MORTGAGING

Charter Co.	NY	18%	-	11/4
CMI Investment Corp		67/a	-	3/
*Colwell	AM	2%		
Cont. Illinois Realty	NY	134	-	1%
Fed. Nat. Mtg. Assn	NY	161/4		
Fin. Resources Gp	OT	11/e		
(Globe Mortgage)				
FMIC Corp. (Formerly				
First Mtg. Ins. Co.)	OT	31/2	+	1/8
 Lomas & Net. Fin 	NY	4	-	*
MGIC Inv. Corp	NY	71/2	+	1/2
Palomar Fin.	AM	1	100	1/4
Western Pac. Fin. Corp.	OT	13/8	-	34
(Formerly So. Cal.				
Mort. & Loan Corp.)				
UPI Corp.	-AM	11/2	-	1/8
(United Imp. & Inv.)				

REAL ESTATE INV. TRUSTS

VY	41/4	- 11/4
M	25%	- 16
TC	3	
VY	31/2	- 11/2
TC	41/4	- 1/4
TC	61/2	- 334
	2	- 11/2
	21/4	- 11/a
		- 11/2
		- 34
		- 1
		- 3/4
		- 7/2
		- 136
		- 7/8
		- 5½
		- 11/4
		- 1/2
		- 11/a - 13/a
		1.74
		- 1/4
		- 1
VY	1%	- %
VY	12%	- 11/2
M	7%	- %
VY	11/2	- 1/4
TC	41/2	- 1
VY.	11/8	- 1/2
M	3	- 11/8
Y	31/8	- 174
M	21/8	
TC	63/4	- 1/2
M	43%	- 1/4
IY	13/4	- 54
M		- 1/2
	278	
	21/8	
M	17/6	- 11/6
M	17/8 11/2	- 11/e - 1/a
M TC M	11/8 11/2 31/8	- 11/8 - 1/4 - 3/4
M T M N	11/8 11/2 31/8 105/8	- 11/6 - 1/4 - 3/4 - 25/6
M M N M	1 1/2 11/2 31/8 105/8 85/8	- 11/6 - 1/3 - 3/4 - 25/9
M M N M	1 1/2 31/8 105/8 85/8 11/2	- 11/6 - 1/4 - 3/4 - 25/8
M M N M M	1 1/2 31/8 105/8 85/8 13/2 3/8	- 11/6 - 1/4 - 3/4 - 25/8 - 5/8 - 3/6
M M N M M M	1 1/2 31/8 105/8 85/8 13/2 3/6 91/6	- 11/6 - 1/4 - 3/4 - 25/6 - 5/8 - 3/8 - 21/8
M M N M M M M	11/8 11/2 31/8 105/8 85/8 11/2 3/6 91/6 47/6	- 11/6 - 1/a - 3/4 - 25/6 - 5/6 - 3/6 - 21/6 - 7/6
M M M M M M M M	11/8 11/2 31/8 105/8 85/8 11/2 3/6 91/6 47/8 21/8	- 11/6 - 1/4 - 3/4 - 25/6 - 5/6 - 3/6 - 21/6 - 7/6 - 3/4
M M M M M M M M Y Y Y Y Y	1 1/8 1 1/2 3 1/8 1 0 5/8 8 5/8 1 1/2 3/8 9 1/8 4 7/8 2 1/8 1 3/8	- 11/6 - 1/4 - 3/4 - 25/6 - 5/6 - 3/6 - 21/6 - 7/6 - 3/4 - 1/6
M M M M M M M M	11/8 11/2 31/8 105/8 85/8 11/2 3/6 91/6 47/8 21/8	- 11/6 - 1/4 - 3/4 - 25/6 - 5/6 - 3/6 - 21/6 - 7/6 - 3/4
M.M. M.M. M.M. M.M. M.M. M.M. M.M. M.M	17/8 11/2 31/8 105/8 85/8 11/2 3/8 91/8 47/8 21/8 13/8 31/4	- 1 1/6 - 1/4 - 3/4 - 25/6 - 5/6 - 3/6 - 3/6 - 3/6 - 1/6 - 1/4
M M M M M M M M Y Y Y Y Y	1 1/8 1 1/2 3 1/8 1 0 5/8 8 5/8 1 1/2 3/8 9 1/8 4 7/8 2 1/8 1 3/8	- 11/6 - 1/4 - 3/4 - 25/6 - 5/6 - 3/6 - 21/6 - 7/6 - 3/4 - 1/6
	M Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y	M 25% DT 3 3 DT 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4

Company		Dec. 3 Bid/ Close	Chng. Prev. Month
& Rity.	NY	10%	- 15k
PNB Mtg. Rity. Inv.	NY	43%	- 3/4
Palomar Mtg. Inv.	AM	5/8	- 36
Penn. R. E. Inv. Tr.	AM	7	- 34
Property Capital	AM	6%	× 1/4
Realty Income Tr.	AM	41/2	- 134
Republic Mtg. Inv.	NY	134	- 1
B. F. Saul, R.E.I.T.	. NY	344	- 11/2
Security Mtg. Inv.	.AM	3/4	- 7/4
Stadium Realty Tr.	OT	21/4	- 134
State Mutual SBI	NY	45%	- 21/0
Sutro Mtg.	NY	234	- 7/s
Unionamerica Mtg. &			
Eq.	AM	15k	- 3/4
U.S. Realty Inv.	NY	31/6	- 7/8
Wachovia Realty Inc.	NY	3	- 11/2
Wells Fargo Mortgage	NY	31/2	- 11/2

All-State Properties	OT	1/8	-	1A
*AMREP Corp.	NY	1%	-	1/8
Arvida Corp.	OT	354	-	34
Atlantic Imp.—d	OT	2%	-	3/4
Canaveral Int.	AM	1/2	-	1/4
Cavanagh Communities	NY	1/2		3
Crawford Corp.	OT	4		1/2
Deltona Corp	.NY	41/8	-	3/4
Dominion Holding	OT	7/4		
(Disc Inc. of America)				
Fairfield Communities—c	TO	1		
Gen. Development		3	-	1/4
Getty Financial Corp.	OT	1		-
(Don the Beachcombe				
*Horizon Corp.	NY	17/8	-	1/2
Landmark Land Co.	AM	15%		Na.
(Gulf State Land)		-		
Land Resources	OT	14		
Major Realty	OT	11/4	101	34
McCulloch Oil	AM	3		1/4
Sea Pines Co.	OT	134		126
	AM	456		178
South Rity, Util.—d	MM	418		

MOBILE HOMES & MODULES Champion Home Bldrs. AM 2½

· Commodore Corpd	MA.	13/4		
Conchemo-d	.AM	61/2	-	1
De Rose Industries	AM	3/4	-	1/4
Fleetwood	. NY	834	-	7/1
Golden West	.AM	1%		56
Moamco Corp. (formerly Mobil Americana)	AM	1366		
Mobile Home Ind.	NY	27/4	~	1/2
Monarch Inc.	OT	7/8	-	34
Redman Inc	.NY	11/2	-	74
Rex Noreco	NY	7/8	-	1/8
*Skyline	NY	17%	+	1/4
Town and Country	AM	13/8	-	74
Zimmer Homes	AM	2		
Brigadier Ind.	OT	1	-	7/4
Environmental Commun	OT	1/4		
Hodgson Houses	OT	1/2	-	1/4
Liberty Homes	OT	7/6	-	1/4
Lindal Cedar Homes	OT	11/4		
Nationwide Homes—d	AM	51/2	-	1/2
Shelter Resources	.AM	tthe	-	9/10
Swift Industries	OT	1/9		

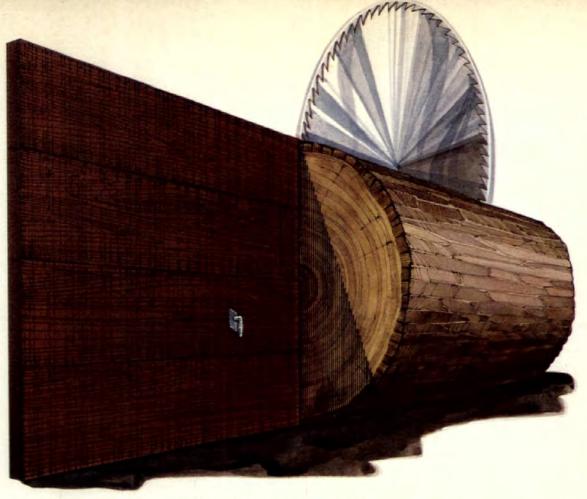
DIVERSIFIED COMPANIES

American Cyanimid	NY	21	- 11/e
Amer. Standard	NY	81/4	- 7/e
Amterre Development	OT	7/8	
Arlen Realty & Develop	NY	17/4	
AVCO Corp.	NY	25%	- 1/4
Bendix Corp.	NY	21	+ 1/2
Bethlehem Steel	NY	25%	- 134
Boise Cascade	NY	10%	- 11/8
Building & Land Tech.	OT	1	- 1/2
CNA Financial (Larwin)	NY	25%	- 15%
Castle & Cooke	NY	141/4	+ 54
(Oceanic Prop.)			
CBS (Klingbeil)	NY	301/4	+ 3/4
Champion Int. Corp.	NY	10%	- 27/8
(U.S. Plywood-Champi	ion)		
Christiana Securities	OT	80	-17
Citizens Financial—d	AM	7/8	- 36
City Investing	NY	434	- 7/4
(Sterling Forest)			
Corning Glass	NY	331/4	- 4
Cousins Properties	OT	3	- 54
Dreyfus Corp. (Bert Smokler)	NY	37/8	- 1/4
Environmental Systems	OT	.05	+ .02
(Midwestern Fin.)	OT	16	- 3/4
Evans Products	NY	23/8	- 1/2
Ferro Corp.	NY	161/4	- 21/4
First Gen. Resources	OT	.05	- 02
First Rity. Inv. Corpd	AM	3/4	- 34
Fishback & Moore	NY	1914	- 1/2
Forest City Ent.	AM	3	- 1/4
Flagg Industries—d	AM	176	- 16
Frank Paxton Corp.	OT	83/4	+ 1/4
(Builders Assistance C		-	
Fruehauf Corp.	NY	161/a	- 1%
Fugua Corp.	NY	37/8	- 56
. adag cosh	141	0.16	78

Company		Dec. 3 Bid/ Close	Prev. Month
Georgia Pacific	NY	28	- 7/8
Glassrock Products		134	- 1/8
Great Southwest Corp.		1/16	- 3/46
	NY	16%	- 3/4
INA Corp. (M. J. Brock)		271/8	+ 1/2
	NY	301/4	- 1/4
International Basic Econ.		156	+ 1/9
	NY	35	- 41/4
Inter. Tel & Tel.	NY	143/8	- 159
Investors Funding—d		1	
Killearn Properties—d	AM	13/4	
Leroy Corp		1	
Ludlow Corp.	NY	836	- 11/8
Monogram Industries		6	+ 1/8
Monumental Corp.	OT	91/2	- 5/8
(Jos. Meyerhoff Org.)		4.6	16
Mountain States Fin.			
Corp.	OT	33/4	- 1/4
Matianal Hamas	NY	2	- 3/8
		11/2	- 1
National Kinney	AM	172	-1
(Uris Bldg.)	OT	2%	- 1/2
		131/2	- 23/4
Occidental Petroleum (Occ. Pet. Land & Dev.)		13/2	+ 244
Pacific Coast Prop.		502	- 352
Parini Corn	ANA	37/8	- 1/4
Perini Corp. Philip Morris	NY	447/8	+ 5/4
(Mission Viejo Co.)	141	4478	78
Page & Talbot	NY	97/8	- 136
Pope & Talbot Republic Housing	141	378	178
Corp.—d	AM	136	
Rouse Co		15%	- 1
	OT	538	- 136
(Robt. H. Grant Corp.)	01	U70	1 10
Shareholders Capital	OT	.02	- 03
(Shareholders R.E. Gro		.02	00
	NY	2136	- 1/4
(Tenneco Realty)	,		
Time Inc.	NY	261/4	- 21/8
(Temple Industries)		2014	
Tishman Realty	OT	101/8	- 134
Titan Group Inc.	OT	7/16	- 1/16
UGI Corp.		10%	- 156
Weil-McLain	NV	61/8	- 3/8
Westinghouse	NY	834	- 3/8
(Coral Ridge Prop.)		0 /4	14
Weyerhauser	NY	26%	- 1
(Weyer Real Est. Co.)			
Whittaker (Vector Corp.)	NY	11/2	- 3/8
Wickes Corp.	NY	85%	- 15/8
SUPPLIERS			

Armstrong Cork Automated Bidg, Comp. Bird & Son Bird & Son Black & Decker V 24 Carrier Corp. V 6½ Crane VY 744 Crane VY 30½ Crane VY 20½ Emerson Electric VY 24½ Emhart Corp. VY 15¾ Crane VY 11¼ Crane VY 11¼ Crane VY 11¼ Crane VY 11¼ Crane VY 11½ Crane VY 15½ Crane VY 15½ Crane VY 15½ Crane VY 25¼ Crane VY 25½ Crane VY	
Bird & Son	
Bird & Son OT 25¾ - 1½ Black & Decker NY 24 - 1½ Carrier Corp. NY 6½ - ½ Certain-teed NY 7¼ - ½ Crane NY 30½ - ½ Dexter NY 9½ - ½ Dover Corp. NY 29¼ - ¼ Emerson Electric NY 24½ - ¼ Emhart Corp. NY 15¾ - ¼ Fedders NY 3 - ½ Filmköte NY 11½ - ¼ GakF Corp. NY 7½ ½ Geodrich NY 15¾ - ¾ Hercules NY 15¾ - ¾ Hobart Manufacturing NY 11¼ 2 Johns-Manville NY 12 1 NY 20 N 1½ 1 Johns-Manville NY 1½ 1 Maseo Corp. NY 2	
Black & Decker	
Carrier Corp. NY 6½	8
Certain-teed	ż
Crane NY 301% - V Dexter NY 91% - 1% Dover Corp. NY 291% - 1% Emerson Electric NY 247% - 4M Emhart Corp. NY 1534 - 3% Fedders NY 3 11% - 4 Flintkote NY 111% - 9 GaF Corp. NY 7½ - 7 Geodrich NY 155% - 3% Hercules NY 25% - 9% Hobarl Manufacturing NY 111% - 2 Johns-Manville NY 17 - 1 Kaiser Aluminum NY 14 - 13 Keene Corp. NY 26% - 3 Mascolite Corp. NY 26% - 3 Mascolite Corp. NY 26% - 3 Maytag NY 17% - 2 National Gypsum NY 95% - 4 Norris Industries	i
Dexter NY 91/h 15/2	2
Dover Corp. NY 294/6	
Emerson Électric NY 2474 4 44 Emhart Corp. NY 1534 3 3 4 6 7 8 6 7 8 6 7 9 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Emhart Corp. NY 15¾ 34 86 Fedders NY 3 - 1/1 1/2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	è
Fedders	
Flintkote	
GAF Corp. NY 7½ 7½ 7½ 64 75 75 75 75 75 75 75 7	,
General Electric NY 351/8 33/8 33/8 Goodrich NY 155/8 31/8 31/8 34/8	
Goodrich	
Hercules	
Hobari Manufacturing	
Int. Harvester	
Johns-Manville	
Kaiser Aluminum	
Keene Corp. NY 2½ 1/4	
Leigh Products—d AM 41/4 -1/4 Masco Corp. NY 264/4 -3 Masonite Corp. NY 271/4 -2 3/4 Maytag NY 17% -2 3/4 National Gypsum NY 9% -4 Norris Industries NY 12 -2 3/4 Overhead Door—d NY 5 -7/4 Owens Corning Fibrgl NY 33 -2 Pollatch Corp. NY 21% -2 3/4 PPG Industries NY 221/4 -8/4	ľ
Masco Corp. NY 26¾ - 3 Masonite Corp. NY 27¼ - 2¼ Maytag NY 17¾ - 2½ National Gypsum NY 9¾ - ¾ Norris Industries NY 12 - 2½ Overhead Door—d NY 5 - ½ Owens Corning Fibrgl. NY 33 - 2 Politatch Corp. NY 21¾ - 2½ PG Industries NY 22¼ - ½	
Masonite Corp. NY 27¼ 2½ Maytag NY 17½ 2½ National Gypsum NY 9½ ¾ Norris Industries NY 2 ½ Overhead Door—d NY 5 ¾ Owens Corning Fibrgl NY 33 2 2 Potlatch Corp. NY 21¼ 2 ½ PPG Industries NY 2½¼ ½ ½	
Maytag NY 17% 2 ½ National Gypsum NY 9% - - Norris Industries NY 2 - 2½ Overhead Door—d NY 5 - - - Owens Corning Fibrgl NY 33 - 2 Potlatch Corp. NY 21% - - PPG Industries NY 22½ - ½	
National Gypsum NY 9% H Norris Industries NY 12 2½ Overhead Door—d NY 5 76 Owens Corning Fibrgl NY 33 2 Poldatch Corp NY 21% 2% PPG Industries NY 22% 4 NY 22% 4 76	
Norris Industries NY 12 – 2½ Overhead Door—d NY 5 – ½ Owens Corning Fibrgl NY 33 – 2 Potlatch Corp. NY 21% – 2½ PPG Industries NY 22½ – ½	
Overhead Door—d NY 5 - 1/4 Owens Corning Fibrgl NY 33 - 2 Potlatch Corp. NY 21% - 2/4 PPG Industries NY 22½ - 1/4	
Owens Corning Fibrgl. NY 33 - 2 Potlatch Corp. NY 21% - 2% PPG Industries NY 22¼ - ½	5
Potlatch Corp. NY 21% - 2% PPG Industries NY 22½ - ½	
PPG Industries NY 221/4 - 1/2	
Revnolds Metals NY 157/4 - N	
	,
Rohm & Haas	
Ronson NY 47/e	
Hoper Gorp	
St. Regis Paper NY 20% - 3%	
Scovill Mfg. NY 7% - 1%	•
Sherwin Williams NY 321/4 + 19	,
Skil Corp. NY 6% - 1	
Slater Electric OT 3¾ 1½	
Stanley Works NY 141/4 + 3/	
Tappan NY 5 - 1/2	
Thomas Industries NY 5 11/4	
Triangle Pacific NY 61/8 - 1/4	
U.S. Gypsum NY 13½ - 2¾	
0.0 0.00	
Wallace Murray NY 6% - 30	-
Jim Walter NY 21 + 1%	•
Whirlpool Corp. NY 1534 + 4	i

AM—closing price American Stock Exchange. NY— New York Stock Exchange. OT—over-the-counter bid price. PC—Pacific Exchange. TR—Toronto Stock Exhange. a—stock newly added to table. d—not traded on date quoted. •—Computed in HOUSE & HOME's 25-stock value index. Source: Standard & Poor's, New York City.



RAYNOR RANGER GARAGE DOOR

Rough-Sawn Match-Mate For Your Rustic Style Homes

The new Raynor Ranger garage door fills a long-felt need in garage door styling.
With its authentic rough-sawn cedar look, the Ranger fits perfectly with today's popular designs in homes—homes with a natural, wide open

paces quality, homes that belong a rustic setting. It's really a pecially textured hardboard surface hat can be stained any color desired, o blend or contrast with the color of he home. The Raynor Ranger has a great inside story, too, for underneath he rough-sawn paneling is a rigid noneycomb that provides a

tremendous amount of strength while holding the weight down. All four door sections are a full one inch thick. The hardware is custom designed and



manufactured in Raynor's tradition of offering a totally trouble-free garage door system. For your next home project, specify the door that matches and enhances your design. The Raynor Ranger, in one and two car sizes. We'll be happy to send you literature.

Ask about our automatic operator for extra convenience and energy conservation to your home buyers.



Dept. HH-1, DIXON, ILLINOIS 61021





Considering the cost of pregrouted Redi-Set ceramic tile, it's a wonder everybody isn't using it."

Faced with soaring material and labor costs (and who isn't), builders John and Taylor White of White Construction Company, Monkton, Maryland, had a problem.

Thornton Wood was going to be an exclusive, new, luxury townhouse condominium community. So the choice of materials was critical.

In the baths, the merchandisability of real ceramic tile, with its lifetime value, vs. plastic tubs and showers, or laminated wall coverings, was apparent.

But then, the builders wondered how ceramic tile would affect their costs.

"I thought our tile contractor was kidding when he told us that the tub and shower surrounds for this job would run about \$90 to \$110 a unit, installed."

"After looking over our specs, Ken Hellman, president of Star Tile in Baltimore, told us that the answer to our problem was Redi-Set® pregrouted systems. And what we needed—tub surrounds and showers—would cost us, installed, just about the same as plastic units. You know, I thought he was kidding. And kidding again, when he

said that he figured each unit would take about 35 minutes to put in. Then, Ken showed us Redi-Set. And we knew right away that our problem wasn't a problem anymore."—Taylor White, President, White Construction Co.

"Look, Redi-Set's real glazed ceramic tile; it comes in sheets of up to 64 tiles—pregrouted by American Olean with silicone rubber. It's waterproof, flexible and it won't crack out."

"American Olean says it's as close to self-cleaning as you can get—because the grout stays white. It's stain and mildew resistant. All you have to do to clean it is give it a wipe with a damp cloth. American Olean has a great choice of colors, the right sizes for just about any job, and plenty of tile on hand. Fact is, Redi-Set goes in two to three times faster than loose tile, and we don't have call-back problems.—Ken Hellman, President, Star Tile

Today, pregrouted Redi-Set ceramic tile sheets are going up in all the baths at Thornton Wood, without a hitch, over

gypsum wallboard. Since there's no mixing of mortar or grout, clean-up is easier and faster than in conventional tile in-

stallations. What's more, the installation is waterproof.

Redi-Set. From American Olean. For whatever you're building.

Redi-Set Systems 300 at Thornton Wood, Riderwood, Md. Tub surround—System 310-56, 18 Pastel Blue; wainscoting—System 350 wall sheets; shower surround and seat—special System 300, shower wall, 9 Autumn Gold; shower floor—1" x 1" ceramic mosaics in Pepper White.

Visit our exhibit— Booth 2128 at the NAHB Show

American Olean Tile Company
2074 Cannon Avenue, Lansdale, Pa. 19446
Please send me all the latest information on your
Redi-Set Systems.

Name

Firm

Address

City

State

Zip

American
Olean

A Division of Noticord Gryphum Compony



Entertainment Center

That Hangs Like A Picture...

Features AM/FM radio, 8-track tape player, matching stereo speakers, reading light, digital clock. Encased in a choice of fine cabinets all internally wired, fused and ready to plug in!

A one-piece space saver that is simple to operate and damage free. Made to hang or mount on any wall of the home or business. CONSOLITE offers a choice of several models; one designed specifically for installing in kitchen soffit area. (Originators of the "Stereo-Headboard")

ADDRESS		
CITY	STATE	ZIP
-		
	conso	ITE

CIRCLE 81 ON READER SERVICE CARD

Stellan Attraction in any home... the luxurious Hellene SUNKEN TUB



Greco-Roman Luxury in Molded Fiberglass
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Long Island's Monaco Named for state-level post



Publicist Gail Stoorza A new voice for coast builders

Times are hard, and signs of the times are growing more visible among builders

Shelter Resources, the mobilehome builder, loses Carl D. Glickman, 48, its chairman and chief executive. General Counsel Edward Gold says Glickman wants to devote his time to other business and personal interests.

In a way, it's a sign of the times. "Frankly," Gold says, "he just doesn't need our grief . . . as mobile home manufacturers."

The grief is considerable; the Cleveland company's ninemonth loss approximated \$7 million and a recent financial press headline (another sign?) proclaimed: Shelter Resources Says It Is Sure to Survive Despite a Big '74 Loss.

President Marvin R. Meit takes the chief exec's reins, but the chairmanship remains open—to save the \$140,000 salary, says Gold.

Evans Products, the supplier from Portland Ore., loses President Sheldon Kaplan, 47. He pleads pressing personal reasons for departure. Monford A. Orloff, who was president before Kaplan and now is chairman, reassumes Kaplan's post.

Evans, too, is feeling hard times: it posted a third-quarter loss, omitted a fourth-quarter dividend, and predicted it would be in the red at year end.

Carl A. Rudnick and Gene Meyers, until last year West Coast executives with Levitt & Sons, start their own company in Los Angeles. The company is R&M Financial Corp. and the company is a sign of the times, too—for it will buy and sell distressed properties.

Another Levitt man, Thomas Silvestri, leaves company headquarters in Lake Success, N.Y., to sign on as vice president of Rockwood National Corp. and its 87%-owned real-estate subsidiary, NEI Corp., in Elmsford, N.Y.

Other builders, meanwhile, have been busy with elections. The Texas Association of Builders: Thurman Barrett of San Antonio; Metropolitan Omaha Builders Association: Hal Grove.

And Andrew A. Monaco, recently elected president of the Long Island Builders Institute [News, Dec. '74], receives the nomination for second vice president of the New York State Builders Assn. Associates observe that Monaco is already used to 16-hour days.

William O. Thagard is chosen as president and chief operating officer of Walker & Lee, the real estate services giant in Anaheim, Calif.

Richard Barclay, a founder of Barclay Hollander Curci in Los Angeles, vacates the presidency and moves up to chairman. Jack Coulter, formerly with Carlsberg Financial Corp., takes over the president's post. Barclay Hollander Curci, a subsidiary of Castle & Cooke of Hawaii, has developed 15,000 homes and sites in southern California.

Gail Stoorza, until recently corporate director of public relations at Avco Community Developers, opens her own PR firm, the Gail Stoorza Co., in La Jolla, Calif. Her first and biggest client: Avco Community Developers.

N. Edgar Kromer, late of U.S. Home and lately president of the Racquet and Yacht Club of Boca Raton (Fla.), takes two new titles. He becomes president of Licron-Florida Corp. and vice president of Willets International, the two companies developing and managing the Racquet and Yacht Club.



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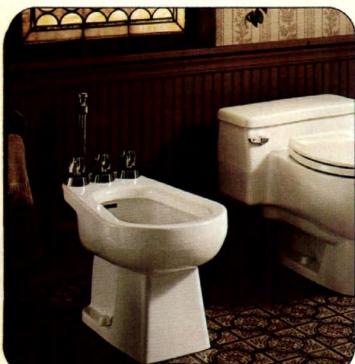
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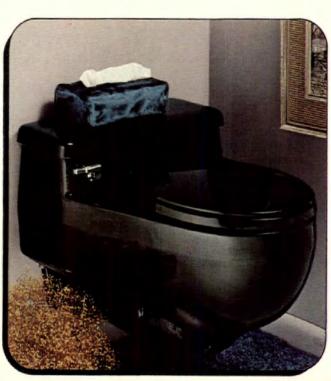


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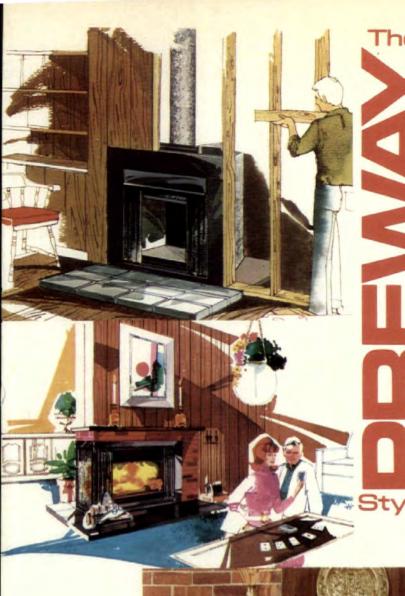
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Spiro Agnew is now making \$100,000 a year; his ex-pals may soon be making license plates

The construction payoff scandal that threw Spiro Agnew out of office [News, Nov. '73] has brought prison sentences for two of his associates in the scheme. Meanwhile, the former vice president and ex-governor of Maryland is alive and well and busy dealing in real estate.

The men sentenced are I. H. (Bud) Hammerman 2nd, the Baltimore developer and mortgage banker who served as Agnew's bagman during the latter's term as governor of Maryland, and Allen Green, one of two consulting engineers who made their payoffs directly to Agnew. The two pleaded guilty to one count each of indictments charging that they tried to obstruct the enforcement of federal tax laws. They had admitted complicity. Both were fined \$5,000, the maximum under this charge.

The cases of two other participants have not yet been disposed of. They are Lester Matz, the second of the two engineers; and Jerome Wolff, who as director of the Maryland State Roads Commission handled the actual dispensation of paid-for contracts.

An assistant U.S. attorney taking part in the case in Baltimore, Barnet D. Skolnik, said the cases of the two men were still pending.

Matz and Green allegedly continued payoffs to Agnew for a time after he became vice president of the United States.

Agnew, in addition to resigning that office, was fined \$10,-

Pilot lights ruled out

California plans to ban the pilot light to save natural gas.

A bill signed by outgoing Governor Ronald Reagan prohibits use of pilot lights in new household appliances beginning January 1, 1977, or two years after an acceptable alternative has been certified by the state, whichever is later.

Utilities estimate pilot lights burn 16% of the natural gas used in California homes.

Several manufacturers already offer flameless ignition devices for stoves and other appliances. -Tom Arden

> McGraw-Hill World News Sacramento

000 and placed on three years probation after pleading no con test to a tax-evasion charge. He has since incorporated himsel as Pathlite Inc. and is operating in Crofton, Md., as a business broker-bringing together buy ers and sellers of real estate and other investments.

Agnew's backer is Walter J Dilbeck Jr., a Kentucky devel oper who has Agnew under con tract at \$100,000 a year plus one third of the profits he generates Agnew received \$62,500 a year plus \$10,000 annually for ex penses as vice president.

Agnew has made several trips abroad, mostly to Greece and to the sunny climes of the Middle East, where he hobnobs with oi sheiks and tries to coax their pe trodollars into U.S. invest ments. -HAROLD SENEKER

Bernie Cornfeld makes a re-entry in realty

He's dividing himself between real estate and show biz.

His vehicle is Southwestern Research Corp., a financially troubled land developer and owner of film studios at its base in-er- Carefree, Arizona, The company takes Bernie in as unpaid chairman of the board.

"These are areas in which he's interested," explains F. M. Mc-Cown, who returns as president after a four-year hiatus in which he says, the company's revenues declined drastically. McCown adds that he and Bernie have been friends for some time.

Cornfeld, McCown "will contribute his ability and his old sales organization for Investors Overseas Services (IOS) in Europe to sell U.S. real estate for us abroad."

McCown also believes Cornfeld's contacts in show business will help Southwestern Productions, the sound stage subsidiary. (Bernie is in residence in Beverly Hills for the nonce.)

CORRECTION

Amelia Island Plantation covers 1,650 acres (see page 64 of the November, 1974 issue of House & HOME). Its first phase covers 850 acres, not the 450 acres we stated in our article.

The ultimate

(In kitchen convenience for the new home and condominium.)

Litton Micromatic™ microwave range - it's three appliances in one.

Deluxe microwave oven cooks a main dish or a complete meal in minutes.

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The Micromatic is made for the woman who'd love to try microwave cooking but needs a range.

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- Large capacity microwave oven with pushbutton automatic defrost and Micro-Timer™ digital control.
- Smooth ceramic cooktop - one piece no-drip design.
- Continuous-cleaning electric oven cleans itself as it bakes. Smokeless, closed-door broiling. See through black window door. Base storage compartment.
- Litton Micromatic microwave range is one of the safest kitchen appliances. Litton microwave ovens meet all safety standards set by the U.S. Dept. of Health, Education and Welfare. Look for the safety seal and the UL tested label on every oven.

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Microwave Cooking

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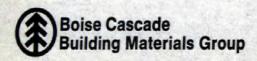
We're innovators, not imitators. We'd rather be leading the trends than reading about 'em later.

We introduced Textured Insulite in 1970, and Textured took off.
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For 60 years, through wind and storm, through rain and recession, Insulite has weathered it all. Now we stake our reputation on a finish that's more weatherable than ever.

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Jig is the lowest priced, most dependable system on the market today. Panel Clip's new Series III low cost clips provide you with maximum profit. The Klincher® presses two Series III clips at once which eliminates flipping the truss. The exclusive Klincher® system includes fast, free engineering service. Call or write today for more information or a personal demonstration.



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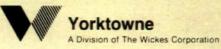
The secret is in our 15" deep wall cabinets, our unique 42" high model, doormounted shelves (optional) and our extraspacious drawers. If you're not concerned with extra space and want a standard kitchen, all Spacemaker wall cabinets also come 12" deep.

You'll find Spacemaker big on looks, too. Both sides of doors, panels and shelves



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In addition, Spacemaker has some very unique construction features. For details, see your Yorktowne distributor or write for our brochure. Yorktowne, Red Lion, Pennsylvania 17356. Manufacturer of fine kitchen cabinets since 1936.



Spacemaker makes any kitchen larger without knocking out walls.

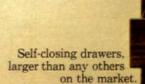
Available in all standard heights plus new 42" model.



Cabinets are finished inside and out with tough, pecan polyester laminate for easy cleaning and lasting good looks.

Handsome hardware with open back plate. Want color? Add accents!

15" deep units have added shelf depth plus optional door storage. Store more!



All doors have self-closing

adjustable hinges.



How to beat the credit crunch: tap the retirement market

A lot of retirees pay cash for their new homes. So a project built for that market has a good chance of surviving when mortgages are hard to come by.

Case in Point: Cranberry Knoll, the Dennis, Mass. condominium project shown here. Two-thirds of 85 sales made so far have been for cash. And despite generally depressed sales in the surrounding Cape Cod area, the project continues to sell steadily. In fact, ten buyers recently put down deposits without knowing prices for townhouses that won't be delivered for several months.

What's the attraction?

In part, it's the location, which offers all the Cape Cod recreational amenities.

More specifically, however, here's what buyers like about the project:

- The overall plan, which clusters townhouse groups into mini-neighborhoods.
- The variety of floor plans from one to three bedrooms in one- and two-story units.
- The architecture-reminiscent of early New England.
- The prices—\$34,900 to \$46,500 in the project's early phases. These figures are roughly \$750 to \$1,000 less than originally estimated. This saving, says architect Niles O. Sutphin, results from the use of locally produced prefab components, which cut two months off construction time. Sutphin joint-ventured the project with builders/developers Kenneth N. Denton and Raymond E. Fontaine.

Although Cape Cod is a vacation area, 90% of Cranberry Knoll owners-who come from New York, New Jersey, Pennsylvania and the Boston areabought their townhouses as primary homes.

> Smallest and largest units are the one-bedroom plan (far right), which contains 714 sq. ft., and the threebedroom, two-story plan (right), which contains 1,290 sq. ft. There is an alternate one-story, two-bedroom plan with 1,086 sq. ft., and a two-story, two-bedroom layout with 1,080 sq. ft. Prices include carpeting and appliances.



Townhouses, shown from entry side (below) and rear (left) are surrounde by numerous mature trees, which help give the project an establishe look. The mix of one- and two-stor plans, plus the staggering of units produces varied streetscapes. Re cessed entries and the orientation of outdoor living areas to the rear of th townhouses, provide a maximum amount of unit-to-unit privacy.





Varied mini-neighborhoods-som with townhouses loosely clustered others with tight clustering-ar planned so that the units occupy th flat portions of the rolling, 26-acr site. Not more than five townhouse are grouped together; so the devel opers are able to build to demand thus keep unsold inventory at a min imum. So far 89 of the planned 14 units are completed. The clubhouse swimming pool and tennis court were built during the project's earl





4 useful building books on...

Townhouses & Condominiums: Residents' Likes and Dislikes by Dr. Carl Norcross

105 pages/8 1/2" x 11"/Paperbound/Illustrated/Price: \$20.00

Townhouses and Condominiums by Dr. Carl Norcross is unique since its primary emphasis is on people already living in townhouses and condominiums. For the first time, residents are directly quoted about what they like and dislike about their homes, what they want changed, and what suggestions they have for improvements. Their cogent, incisive, and often provacative comments can furnish builders, developers, and other key industry professionals — as well as prospective townhouse and condominium buyers — with valuable insights and guidelines.

On the basis of answers to two general questions, an Owner's Satisfaction Scale was developed by the author. Although based primarily on two questions, the scale has validity since responses correlate closely with responses to eight other, very specific

One of the most extensive studies ever made of townhouses and condominiums, this survey includes residents in forty-nine projects in California and Washington, D.C. However, the results of the survey are generally applicable to any development, since the subjects discussed cover a wide range including parking problems, recreation facilities, responsibility of homes associations, density factors, pets in the neighborhood, and quality of construction. For your personal copy check form below.

Golf Course Developments Oby Rees L. Jones and Guy L. Rando

105 pages/8 1/2" x 11"/Paperbound/Illustrated/Price: \$17.50

It is clear that real estate developers will be the major golf course builders in the future. Since many developers have never been involved in this type of site improvement and because many others have not participated in the sport, authors Jones and Rando determined that a golf course development manual would be

of great value.

Golf Course Developments describes what a developer should know about the game of golf and what constitutes a regulation golf course as well as alternative layout types. It explains the various layout configurations that can be used and contains a discussion of how and why each one has been incorporated into an existing development. A thorough discussion of site factors which must be considered before a golf course is laid out is also included.

Necessary golf course construction methods with their alternate solutions and related costs are explained and a very informative design analysis of a particular project, Point Aquarius, in Alabama

is included.

Finally, there is a general section on clubhouse design and function as well as a discussion on the various ways to treat

memberships or fees.

In sum, this is a development manual written for real estate developers to help them better understand the subtleties and complexities of golf course development and to point out the high degree of technical and design expertise needed to accomplish the task effectively and efficiently.

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Apartment Development: O Strategy for Successful Decision Making by J. Ross McKeever

58 pages/8 1/2" x 11"/Paperbound/Illustrated/Price: \$10.00

This special report — just published — will help builders and developers improve their strategies for developing successful apartment projects. The four sections of this comprehensive report offer in-depth coverage of the market process, the site selection process, the site design process, and the marketing process.

Apart from the high cost of money and the scarcity of its ready explosibility apartment developers are confronted with a

ready availability, apartment developers are confronted with a number of obstacles to surmount before construction can begin.

These obstacles are listed, discussed, and a solution is offered.

To counteract the obstacles the author lists and discusses the bright spots. For example, the untapped potential for redevelopment of the central city, the current federal housing allowance system, the continuing demand for multifamily housing. These and other feworms for the continuing demand for multifamily housing. favorable factors are examined.

This report offers steps and procedures — in the form of checklists — for the builder and developer to use in adapting a personal strategy for success in the construction of mid-rise,

garden and high-rise developments.

A good market for good rental units is bolstered by building not just apartments but by building the right kind in the right place for the right price. This book will help you to make the right decisions that these factors are dependant upon.

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Shopping Center Zoning So by J. Ross McKeever

73 pages/8 1/2" x 11"/Paperbound/Illustrated/Price: \$15.00

This highly revealing study examines the shopping center as zoning applies to its conceptual aspects, planning procedures and managerial operations.

The most significant fact revealed by the investigation underlying this study is the finding that zoning regulations in force for

shopping center development are virtually chaotic.

To offer a direction toward bringing order out of existing chaos, author McKeever offers guidelines to help direct municipal and regional legislative bodies to frame and adopt ordinances that will encourage developers to provide the well planned shopping centers that offer the community an asset to its needs.

By the same token, guidelines for the developer are similarly outlined; the aim is to produce good shopping centers and

community values.

Shopping Center Zoning focuses upon a present day problem which is the crying need for sound and rational zoning controls that induce well designed and well conceived shopping centers. This outstanding volume will help to bridge the communications gap existing between zoning officials who are struggling valiantly day by day with the frustrating task of interpreting and enforcing existing regulations and those responsible developers who are trying hopelessly to conform to them

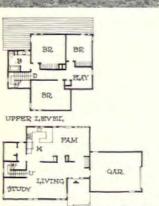
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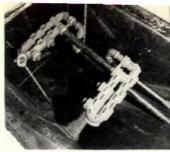
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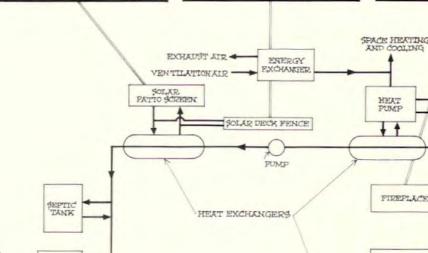
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HOT WATER

DOMESTIC WATER HEATER

COLD WATER



A utility tackles homebuilding—and you can guess why

LOWER LEVEL

Pennsylvania Power & Light Co. wants its homeowner customers to save a watt. So it's trying to show builders how to reduce the energy load in a typical single-family home that's heated and cooled by a standard electric heat pump.

PP&L built the test house (photo and plan above) to try out a new energy-saving system—a warm-water heat-recovery loop that's designed to help run the heat pump with energy drawn from solar heat and from waste household heat. If the system proves out, PP&L estimates about a 40% cut in energy use.

How it works. Basically, the loop utilizes pipes and heat exchangers to carry absorbed solar and waste heat to a 1,000-gal. tank where it's stored until the heat pump is called on to heat the house (see schematic). The system also is hooked up to a pre-heating water tank so that the pump's excess heat can warm cold water being fed to the domestic hot-water heater. This pre-warming of water, the utility says, is a big energy saverparticularly during the nonheating season.

For long cloudy-weather periods and/or when there's not enough waste heat, PP&L's system includes an electric heating element to warm up the water in SEPTIC TANK

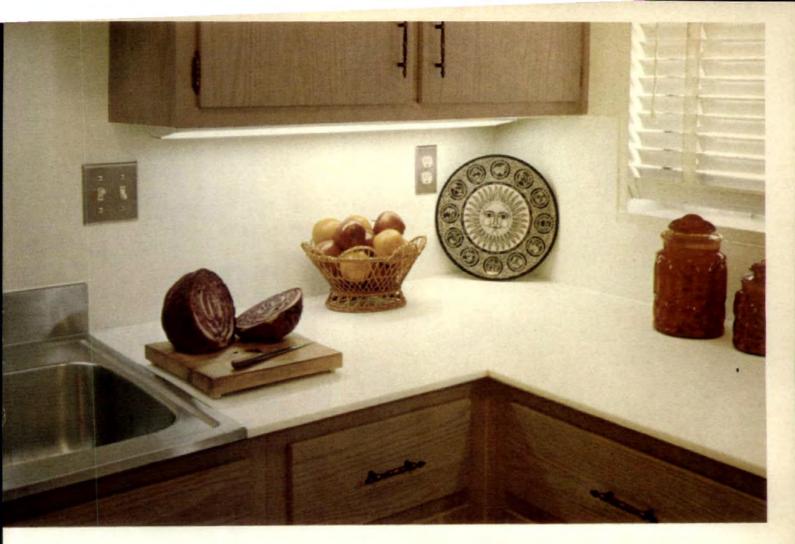
Heat recovery loop, shown in schematic, utilizes solar and waste house-hold heat to help run heat pump. The solar heat is collected from heat-absorbing panels that form the deck railing and patio privacy screen. In summer, backing will be removed from patio panels and balcony panels will be covered with asbestos sheets so solar heat will not be transmitted to system. Heat exchanger prevents loop water from mixing with anti-freeze in solar panels. The waste-heat sources shown in photos include: the fireplace where the loop runs through the flue to capture escaping fire heat; the refrigerator coils, which are placed inside the loop, trapping radiating heat; and the septic tank, which is connected underground to the loop to pick up heat from waste fermentation

A family is living in the test house for a year so that PP&L can monitor the system's feasibility under normal living conditions. Reports on various elements in the system will be issued by the Franklin Institute Research Laboratories of Philadelphia and Drexel University, both of which were involved during the planning stage. These reports will be available to contractors, architects, builders and consumers who want to incorporate the system into new homes.

REFRIGERATOR

The test house, designed by architect Donald W. Duncklee of Allentown, is located in Schnecksville, Pa.

the storage tank. But Robert Romancheck, supervisor of research and technical services doesn't expect the back-up system to be needed very often—probably only late at night in offpeak power periods. Romancheck and energy conservation consultant Robert W. Deppen, conceived the system.



"We found out for ourselves:



DuPont CORIAN has it all over the countertops we replaced."

James R. Cashen, Executive Vice President and General Manager Huber Management Corporation, Kettering, Ohio

"We'd been looking for years for something more durable and more attractive than the countertop material we originally installed in the 376 apartments at this location outside Dayton," says Mr. Cashen.

'The answer is Du Pont CORIAN. It looks beautiful and won't have to be replaced every few years because of stains or cuts. Because CORIAN is a solid material, even tough stains can be removed with abrasive household cleanser...and most cuts can be erased with a little fine sanding...without permanent damage to the surface.

'We're remodeling with solid 1/2" thick Cameo White CORIAN for the countertop with full height backsplash of 1/4" CORIAN. We're also putting Dawn Beige CORIAN in the bathrooms in a complete custom tub surround and wall wainscoting plus a molded one-piece vanity top and bowl.

The response from the tenants has been overwhelming...every one of them considers the new material a terrific improvement in cleanability and appearance. Some of them have even vacated their apartments temporarily so we can remodel with CORIAN.

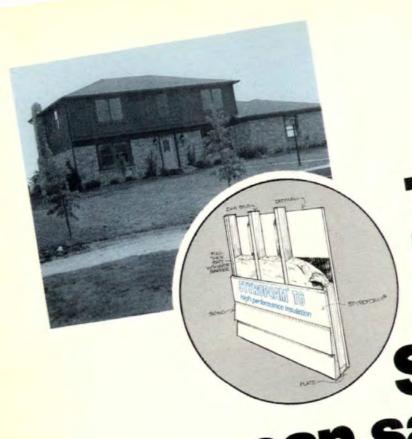
"And it's very easy to install. We pre-cut the sheets in our shop and install them with minimum fuss and bother, using our own crews. The companion Du Pont-supplied stainless steel sink makes the countertop installation especially simple.

'CORIAN gives us more attractive rental units and lower maintenance costs. You can't beat that.'



Take advantage of the Practical Elegance of CORIAN® building products. CORIAN is available in sheet stock for custom surfaces (it can be worked with regular tools), kitchen countertops, wall wainscoting, bathtub and shower surrounds. One-piece molded vanity tops and bowls of CORIAN also available. For more information and the name of the distributor nearest you, write to Du Pont, Room 24292, Nemours Building, Wilmington, DE 19898.





The Totalwall Insulation System

can save your home buyers to \$5 a month on heating and air conditioning costs.

How's that for a closer?

Home-buying prospects are pretty smart people. They know about the energy crisis, and how fuel costs keep going up while supplies keep going down. And they know that it will cost them money in the new house they buy. You can help them reduce the high cost of maintaining a comfortable climate in the house they buy from you: the Totalwall Insulation System. It's a logical, practical aid to a problem close to the heart and pocketbook of every home owner. And it gives you a big selling edge, a merchandisable feature that assures your home buyers of lifetime savings from the day they move in. The Totalwall System is based on the simple theory that if one insulation is good, two must be terrific. So without changing anything in your building process, and by substituting just one product, you can offer a superior sidewall insulation system. The Totalwall System utilizes STYROFOAM* brand insulation instead of conventional sheathing. Substitute STYROFOAM insulation for the sheathing you used before, install batts with vapor barrier just like you've always done, and you have the Totalwall Insulation System . . . and a house with sidewalls that reduce heat loss and heat gain to the barest minimum

You see, STYROFOAM insulation is a first-rate insulation in its own right. Your houses are sheathed in energy-saving STYROFOAM. And although a house with the Totalwall Insulation System performs so much better, saves so much more in heating and air conditioning costs than a conventionally insulated house, it looks just like you want it to look nothing different about it all, no "plastic-house-of-thefuture" look (unless you want it that way), no extra funnylooking things on the outside. Your energy-saving house with the Totalwall Insulation System will sell faster because it's a lot more saleable than a house without the Totalwall System. Here's something that helps you sell houses because it helps the home owner beat the energy crisis.

How are you gonna beat that?

The Totalwall System helps you sell houses. We'll help you sell the Totalwall Insulation System.

Everything the prospect ever wanted to know about saving \$2 to \$5 a month* on his heating and air conditioning costs everything you need to get people out to your energy-, all wrapped up in a hard-hitting, informasaving houses. tive kit of promotional materials. Free! All you have to do is ask for it when you decide to include the Totalwall Insulation System in the houses you build.

- · a handout piece telling all about the Totalwall Systemin easy to understand, everyday, down to earth language.
- a thermostat hanger that clearly states, at the point of energy control, that "this is an energy-saving home... it will save you \$2 to \$5 a month on heating and air conditioning costs.
- a standup counter or table display card that actually shows how the Totalwall Insulation System works, with a pocket for the handout piece.
- . a model home sign that you can place in the window of a model, stick on existing sign or use in many ways to identify your energy-saving homes.
- newspaper ads for you to place in your local paper that sell hard, invite your prospects to see your energy-saving houses—you just include a photo of your model and a map to get the prospects there.
- newspaper drop-in feature slugs that proclaim your Totalwall Insulation System—you just have the newspaper drop them in your own ads.
- · radio scripts with the full message on the Totalwall Insulation System allowing ample time for you to identify your homes and location.

Interested in selling more houses? Interested in selling them easier? Interested in offering your prospects something besides pretty vanities, and name-brand fixtures, and the latest cabinets? Then offer them the Totalwall Insulation System, in every house you build. Call us, and we'll get you started.

If you're as hot about this idea as you oughta be, call us collect . . . at 614 / 457-2580, ask for Residential Marketing Group. We'll get things rolling really fast!

"Estimated savings in a typical house for 1" STYROFOAM in the Totalwall Insulation System over conventional are based on an electric heating and air conditioning rate of 3¢ per kilowatt hour and range from approximately \$2 in Atlanta, Georgia to approximately \$5 in Minneapolis, Minnesota.

Trademark of The Dow Chemical Company

See the Totalwall Insulation System demonstration



AMSPEC Inc. Agents

AMSPEC Inc. Agents

EDWARD SALES CORPORATION—Minneapolis, Minnesota (612) 9296794 • SEWARD SALES CORPORATION—Elkhart, Indiana (219) 293-8607

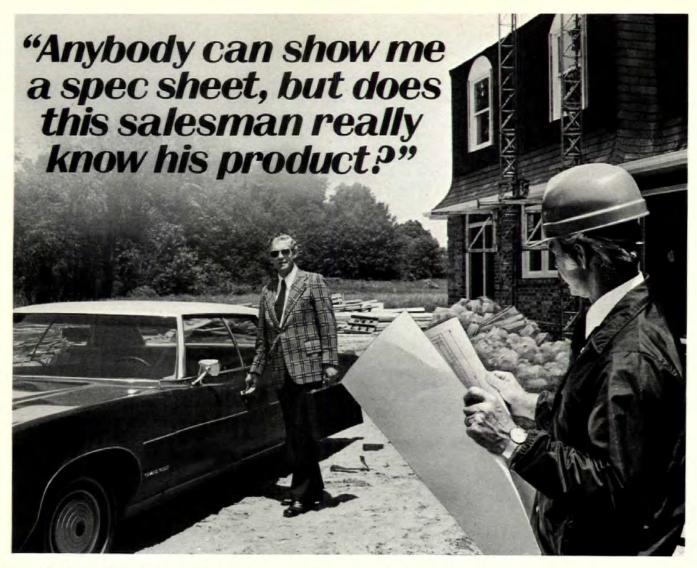
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• CONSTRUCTION FOAMS & SEALANTS, INC.—Schenectady, New York (518) 869-0620 • WILEY-BAYLEY—Seattle, Washington (206) ME3-4526

• WILSON-ROGERS, INC.—Des Moines, Iowa (515) 282-0411 • FETZER CORP.—Baton Rouge, Louisiana (504) 927-9739—Shreveport, La. (318) 836-3107 636-3107

AMSPEC Inc. Sales/Service Offices

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If you're a builder and you're asking about one of our Whirlpool builder territory managers . . . the answer is an unqualified "Yes"!

That's because we make very sure he knows Whirlpool products, inside and out, before he comes calling. How they stack up against competition. Their costs to you locally; not factory costs from miles away. And their application and benefits to you the builder . . . as well as your buyer or renter.

How does he get this product savvy? In several ways. One is by attending the Builder Seminar conducted periodically at the ultra-modern Whirlpool Educational Center in Benton Harbor, Michigan.

Here, using a combination of detailed training manuals, sophisticated video-tape equipment and "hands on" product demonstrations . . . professional seminar instructors produce significantly higher "Product IQ's".

During the balance of these 4 ½-day, give-and-take, shirt-sleeve sessions . . . the builder territory manager sharpens his skills and know-how in literally every phase of the builder business. National, regional and *local* marketing trends, Builder financing, merchandising, and management techniques, among others.

Finally, he gets a refresher on all the post-sale peace-of-mind services you get for relief of service headaches after you turn over the keys to a home or apartment equipped with Whirlpool appliances.

All in all, when you call your Whirlpool Distributor you can be very sure the builder territory manager

who'll come calling (at your convenience) will be speaking your language . . . who can counsel, not just write up product orders. He wants to help you make it happen on the bottom line. (And what could be more important than that?

Ask about

Help where it counts

Whirlpool Distributor pre-sale and post-sale services.



See us in Space 2000 NAHB SHOW

We believe quality can be beautiful



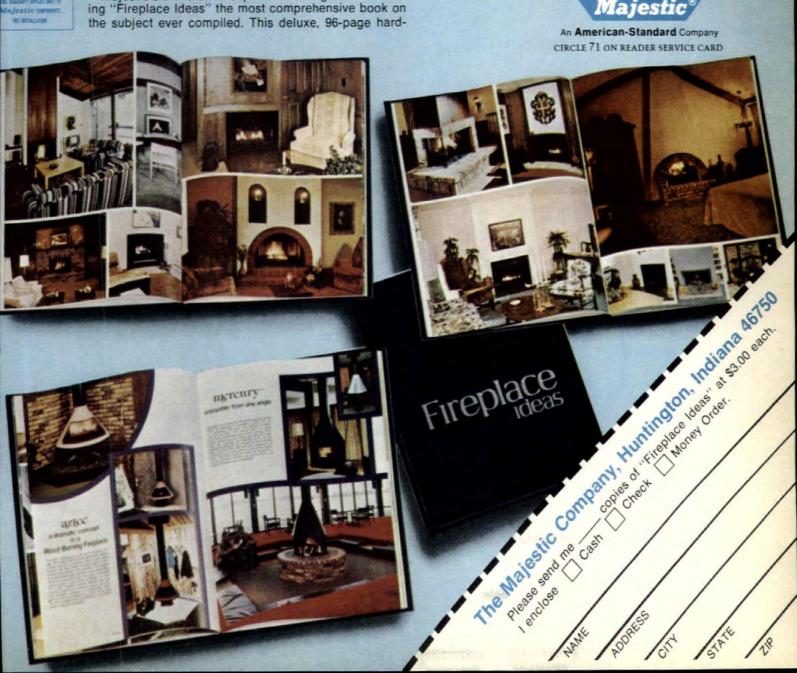
Majestic is the pioneer and leader in the field of modern fireplacing. We offer America's largest line of prefabricated fireplaces which require no masonry . less time and cost for installation. Featured in a range of sizes are Built-In wood-burning and gas-fired units; free-standing, wall-hanging and ceiling-suspended Contemporary models in decorator colors and a choice of fuels: wood, gas or electric; and a full selection of fireplace components for the complete installation. That's why we're "America's Leading Fireplace Manufacturer".

Majestic's unmatched experience has gone into mak-

bound edition is an attractive, accurate guide to all types — from traditional masonry to modern prefabricated units. Facts, figures, diagrams, drawings, charts, do's and don'ts, and over 60 pages of actual installations in full color. Every photo is a "fireplace idea" in itself! A real aid to designers, architects, remodelers and home owners. The richly textured cover with silver embossing makes it a welcome addition to any home library.

Only \$3.00 postpaid. The Majestic Company, Huntington, Indiana 46750.





No matter how you color it-Temple's new textured hardboard siding looks great!

Temple's new textured primed panels solve many traditional siding problems—with a look that's tradition itself.

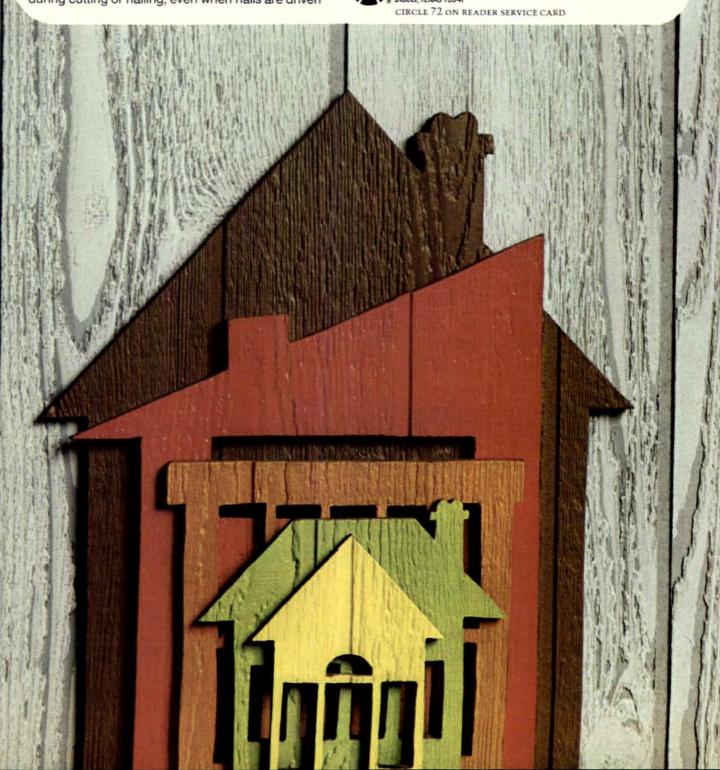
These panels make painting simple. Their rustic grain patterns look great under any of a rainbow of colors, and the factory-primed finish eliminates half the painting job entirely. You can even wait up to sixty days before applying the surface coat.

Because Temple textured siding is made entirely of wood fibers, it offers many of the advantages of wood, and some others besides. It will not split or crack during cutting or nailing, even when nails are driven

flush. Each panel is uniform, free from knotholes, and simple to install. It is warp resistant, with no resins to bake out in the sun.

Available in grooved or ungrooved panels, Temple siding can save you time and money on your next construction job. Judge it against the siding you're using now—for both quality and price. See your building supply dealer—you may be surprised at how economical it really is.





An Unexpected Value!

Buy a Whirlpool dishwasher with the Super Scour cycle for only \$143.00* when you install Whirlpool Power Guard air conditioning.

Please your prospective customers and add unexpected value to your custom homes, with our His and Hers Special. Give her a Whirlpool dishwasher with four cycles and other features. It's a super value. Give him the benefits of Whirlpool Power Guard air conditioning.

The 4-cycle Whirlpool dishwasher has the Super Scourcycle to help handle stubborn, cooked-on foods. And Whirlpool Power Guard air conditioning uses less electricity to deliver a given amount of cooling than most other makes in the same BTUH capacity. Use these two great Whirlpool products to help give unexpected value and more sales appeal to your custom homes! Call your local participating distributor today or write Whirlpool Heating & Cooling Products, P.O. Box 40202, Nashville, TN 37204.

*Limited time offer, good only on undercounter model SAU-450. Installation cost, if any, not included. Manufacturer's suggested price: may vary with local participating distributor.







For rental projects: Here's a localized performance yardstick

A just-released analysis of multifamily housing* pinpoints income and expenses according to building type, year of construction and city. It provides a tool for measuring a building's performance against local averaged data for the same type building.

Compiled by the Institute of Estate Management (IREM), the analysis also monitors national and regional trends in bad debts and vacancies, tenant turnover, operating ratios and other performance data.

Broad sampling. Input comes from 2,878 buildings in 131 U.S. and Canadian cities. These buildings contain 319,098 units totaling 1.2-million rooms. The data is based on 1973 figures and laid out in a format commonly used by professional property managers.

Even though its statistical base is substantial, the analysis is deficient in several key areas: It lacks figures on debt service and capital-replacement costs: its figures are one year out of date; some cities' building types aren't broken down by age; and the statistical bases for some categories, particularly condominiums and cooperatives, are too small to be valid.

Local barometer. Still, the analysis has real value as a barometer of local rental markets. Here it is indispensable for preparing short- and long-range budgets, spotting local trends, making buy-or-sell decisions, and planning for renovation, refinancing and other strategies of successful property management.

Specifically:

 Owners and property managers who compare their buildings with similar buildings in the same city can pick out poor performers. For instance, Baltimore garden apartments built from 1961 through 1967 average a net operating income of \$241.56 per room per year, or 53.4% of gross possible income (see breakdown at right).

If an owner's 1973 operating income is markedly lower than these figures, he can dig deeper to determine where his ex-

Conversely, if net operating income is significantly higher than the average, it could mean the property is being poorly maintained. Thus, within a few years, income is likely to drop because vacancy levels tend to rise in run-down buildings, and there will be much deferred maintenance to pay for.

 Apartment-project buyers can compare local IREM data with income-expense statements of properties offered for sale. Distorted and false statements often reveal themselves compared to IREM averages. And profit opportunities may become obvious.

A typical profit opportunity is a project showing minimal vacancy-under 3%. Immediately, the astute observer knows that rents are too low. IREM figures indicate how high rents might be raised, and thus how profitable the project should be-

· Operators converting rental projects to condominium ownership can use IREM rental data as a starting point in formulating the monthly maintenance fee to be paid by apartment owners.

Working backwards from the rental project's expenses, items within apartments-e.g., painting, decorating and repairs-are eliminated from the condominium association's expenses. But such rental operating expenses as landscaping, water charges, heating and sewer taxes will be paid by unit owners according to some pro rata formula.

 Apartment builders can compare IREM data with the estimated income-expense statements of proposed projects.

Similarly, lenders and appraisers can compare local IREM figures with income-expense statements submitted by customers seeking to build and refinance rental properties.

Of course, during the past 18 months, most of these estimates have shown that net operating income from new buildings wouldn't cover debt service, let alone generate a decent return on equity.

Possible improvements. Though IREM's income-expense analysis is a valuable too today, it could become ever more useful in the future with three improvements. Namely:

1) Getting the data published faster. (Currently, IREM is aim ing for an August or Septembe publication date.)

2) Providing figures on deb service and capital-replacemen

3) Increasing significantly the number of buildings cate gorized by type, city and year o construction.

Noticeably, the cities with the most critical housing prob lems-St. Louis, Detroit and New York-provided little or no in-put to the report, which depends upon owners and property managers to voluntarily submit data to IREM.

Because of multifamily housing's current malaise, more owners and property managers may provide data this year in the hope that shared knowledge will make politicians and the public aware of their plight. And perhaps this increased awareness will help cure, or at least alleviate, the sickness. Perhaps.

AVERAGE INCOME EXPENSES BALTIMORE GARDEN APARTMENTS UNFURNISHED

Built 1961 to 1967

26 Buildings 3,598 Apartments 15,404 Rentable rooms

(a) Dollars per room per year (b) Percent of gross possible total income per room per

INCOME	(a)	(b)
Rents—Apartments Rents—Garages—Parking Rents—Stores Rents—Offices GROSS POSSIBLE RENTAL INCOME	\$446.30 .00 .00 .00 .00 \$446.30	98.6% .0 .0 .0 .0 .98.6%
Miscellaneous other income GROSS POSSIBLE TOTAL INCOME	6.41 \$452.72	1.4
Less: Vacancies—Delinquent rents	9.21 \$443.50	2.0 98.0%
EXPENSES		
Total payroll expenses Supplies Painting—Decorating (int. only) Maintenance and repairs (int. & ext.) Services Miscellaneous operating expenses SUBTOTAL—MAINTENANCE AND OPERAT-	\$ 39.71 4.00 10.04 16.19 3.65 1.56	8.9% .9 2.2 3.6 .8 .3
ING	\$ 75.15	16.7%
Electricity Water Gas (excluding heating fuel) Heating fuel SUBTOTAL—UTILITIES	13.45 8.05 9.65 8.44 \$ 39.59	3.0 1.8 2.2 1.9 8.9%
Management fees Other administrative expenses SUBTOTAL—TAXES AND INSURANCE	20.10 12.27 \$ 32.37	4.4 2.7 7.1%
Insurance Real estate taxes Other taxes SUBTOTAL—TAXES AND INSURANCE	6.61 56.06 1.36 \$ 64.03	1.5 12.5 .3 14.3%
TOTAL ALL EXPENSES	\$201.93	44.6%
NET OPERATING INCOME	\$241.56	53.4%

NET CAPITAL SERVICE REPLACEMENTS CASH FLOW

Subtotals represent the sum of all figures within a given subtotal section. Therefore, a summation of all subtotals may not necessarily add up to the figure under Total All Expenses. The above calculations are based upon the number of rooms reporting the particular item. Averages and percents, therefore, may not total 100%.

^{*}Income/Expense Analysis-Apartments, Condominiums, Cooperatives-1974 edition. 160 pages. \$30. Institute of Real Estate Management, 155 East Superior St., Chicago, Ill. 60611.



How to make the most of 1975 with this \$70,000 research report on America's most active builders

Over \$70,000 was spent to bring you this unique, comprehensive report on the nation's most active homebuilders.

By mail, telephone and personal contact, more than 13,000 individual builders were questionnaired to provide concentrated market intelligence on the top firms and their key executives.

And now, for the regular price of \$94.50, THE 1975 BLUE BOOK OF MAJOR HOMEBUILDERS provides the detailed marketing data you need to follow up the leaders: the nation's major homebuilders producing over 200 housing units a year, and the nation's key homebuilders accounting for 75 to 199 housing units yearly.

The Blue Book details who they are . . . where they are . . . what they're building . . . how they're building single-family, townhouses, multi-family and commercial/industrial buildings in city-by-city and state-by-state housing markets.

Newly expanded to include more builders, more key executives and more useful information on "Who's Who" in Homebuilding, the 1975 edition of the Blue Book has also been re-organized to enable you to find the information you want more quickly and efficiently:

 A National Index lists builders alphabetically by company name, showing where headquarters as well as branch offices are located.

2. A State Index-for each of the fifty states-lists com-

pany names alphabetically for all major and key homebuilders working within the state.

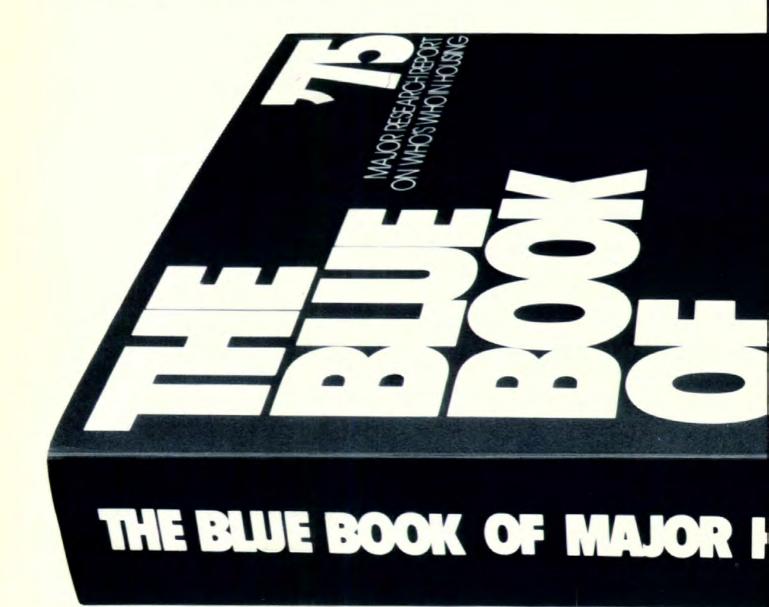
 Within each of the fifty states, company listings are organized by cities, thus enabling you to analyze any state on a city-by-city basis.

Here, in one big package, is the marketing intelligence you need to make the most of 1975. In your hands, the **Blue Book** becomes a useful tool for prospecting, selling, sampling, mailing, marketing, merchandising, researching and joint venturing.

These are among 50 profitable ways the **Blue Book** is used each year by an ever-increasing number of "blue chip" companies which include builders, developers, designers, realtors, suppliers, subcontractors, housing consultants, investors, stock analysts, corporate building departments and government housing agencies at all levels.

Most likely you'll be referring to THE BLUE BOOK OF MAJOR HOMEBUILDERS at least two or three times a month—along with others in your office who put it to good use. But keep your eyes open, for Blue Books have been known to disappear into thin air!

This \$70,000 research report will help you to make the most of 1975, as you keep tabs on America's most active homebuilders. One good contact, in fact, can easily repay your investment in the 1975 Blue Book obtainable through the coupon below.



Over 50 profitable ways to use THE BLUE BOOK OF MAJOR HOMEBUILDERS

Consultants, Planners, Ad Agencies

Provide clients with timely marketing data

Questionnarie to key people in key firms

Keep a finger on the Pulse of the market

Make sound marketing and management decisions

Detect market patterns and trends Save big money on your research

Get comprehensive statistics unavailable elsewhere

Financial Firms: Investors and Lenders

Discover companies previously unknown

Develop new target accounts for

Sell real estate to major builders Learn names of key executives Appraise company strength in the market

Double-check names for credit purposes

Measure market penetration Find acquisitions

Judge strength of earnings & level of operations

Implement bonding program for

builders Isolate multi-family operations

Define commercial/industrial

Builders & Contractors

Demonstrate your standing in

the industry Judge the performance of

competitors Compare operations in your peer

Check the movement of key personnel

Pinpoint activity in specific markets Spot trends in major Metro areas Acquire timely statistical market data

Building Product Manufacturers & Suppliers

Develop sales leads on key

accounts
Pre-qualify prospective customers Estimate quantities of products used

Cross-check salesmen's accounts Increase the number of accounts by territory

Target productive calls for salesmen

Support regional sales managers Make public relations calls on builders

Introduce new products and

materials Great new markets for new products

Select sample areas for market research

Encourage dealers, distributors & salesmen

Prepare direct mailings Survey product use

Keep marketing managers informed Separate the men from the boys in

Developers &

Select companies interested in development

Locate joint venture partners Spot multi-family builders Locate potential land buyers in

Find successful builders for current

Estimate land requirements by

type of construction
Contact potential clients for

Architects/Designers/ Engineers

Market your professional services Locate Blue Chip developers by city

Evaluate the status of prospective clients

Determine a builder's housing mix

A Goldmine of Useful Information on the Major and Key Homebuilders

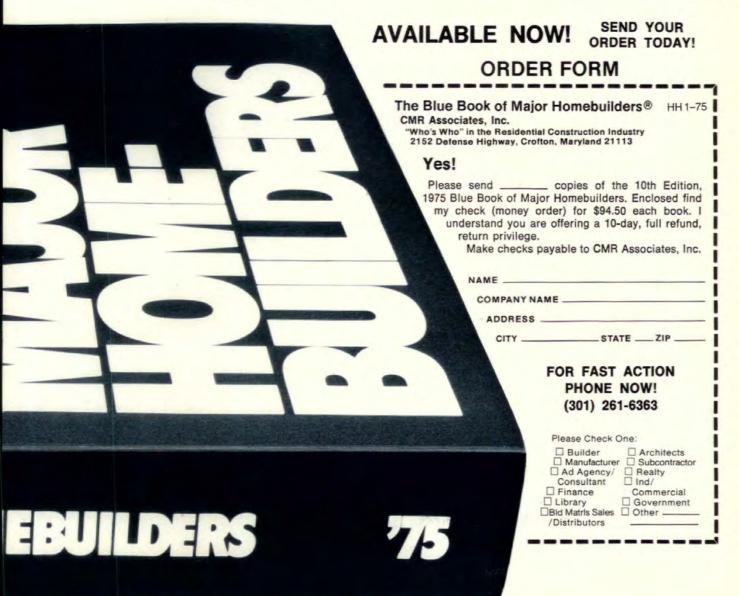
- Company name, headquarters address, telephone
- Branch locations, telephone, person-in-charge
- Key personnel at headquarters & other locations
- Type of organization
- Metro marketing areas of opera-

- Housing production: for sale & for rent Single-family, townhouses, multifamily
- 5-year production history Non-residential production Commercial, industrial, institutional
- 3-year production history Sales price and rental ranges
- Government housing programs Construction methods
- Other business activities and
- income sources 1974 revenues: 5 sources Land requirements: S-F, M-F
- commercial
- Money requirements: construction & permanent
- · Primary sources of financing

Thumb Your Way to Any State or City Market

A fast flip of the thumb turns up any State or City market indexed in the margins of the 1975 Blue Book. Five seconds, flat!





Specify our fiberglass Gothic Pool or Deluxe Recessed Shower.

Or any of our nine styles in eleven sizes. Everything from an 84" oval pool to a square oriental soaking tub. Or a 32" one-piece replacement shower to a 60" luxury model with a built-in seat. You'll find them all in an assortment of bright, pace-setting colors.

Our line meets the strict standards of the NAHB and receives its coveted label of approval. Fiberglass is economical and easy to install. And when your clients realize you've sold them on a Designer Line fixture that's warm to the touch and easy to keep clean-you might just find your name being dropped in the right places.

Designer Line: A good name to drop when specifying fiberglass bath fixtures.



NAHB Convention in Dallas.

VALITY FALIS!



Kitchen Kompact offers three beautiful vanity styles, to add new beauty to baths and new profits to the till.

Look for bellweather sales from Plaza White, the classic vanity that requires almost no care. Its Durium construction can take family abuse and bathroom moisture.

For more conservative tastes, KK offers Plaza One. It looks like rich, deep-grained oak, but it's actually Durium — for durable beauty.

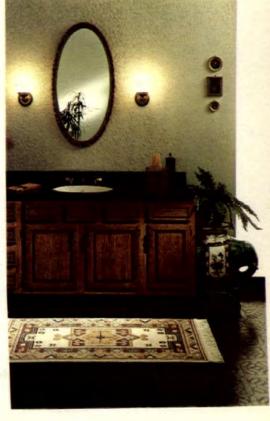
KK's perennial favorite is Glenwood, with the warm walnut tones. Glenwood vanities sport tough Durium doors and drawer fronts, too.

Come on. Have a vanity fair with the fairest of vanities. Look in the Yellow Pages for your nearest distributor, or write Kitchen Kompact, Inc., KK Plaza, Jeffersonville, Indiana 47130.













I use Nord doors in almost every home I build. In all these years, I've never had a call-back." Forest Pugh, custom builder, New Orleans

The people at Nord are very particular about both their wood and their workmanship.

Only selected Western woods go into a Nord door. Wood that's been dried in Nord's own kilns. Wood that's carefully controlled to make sure every board foot has the correct moisture content for precision manufacturing.

The same careful attention goes into the making of a Nord door. Carvings are deep. Panels are finely detailed. Joints are tight, exact.

Fine wood and fine workmanship. That's why builders like Forest Pugh count on Nord for quality wood doors. Home after home.

For more information on Nord carved entry doors, write "doors" on your letterhead and mail it to E. A. Nord Company, Everett, WA 98206.





Bathrooms	86, 87
continued	115, 116
Cabinetry	
Coatings/Adhesives	
Doors/Windows	
continued	
Electrical	
Exteriors	
continued	
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Flooring	
continued	
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Kitchens	82, 83
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Lighting	100, 101
continued	150
Plumbing/Piping	
Recreational	
Security	
Structural	
Tools/Equipment	
continued	

This year's homebuilding and furnishing products clearly reflect the times and the economy.

Much of yesterday's gimmicks, glamour and glitter are gone; in their place, manufacturers, like builders, are concentrating on practical, salable, long-term values.

Some examples:

Energy-saving appliances and heating and cooling systems engineered for optimum efficiency.

Construction materials that contribute to lower operating costs.

And there's a continuing effort to produce mechanical equipment that has a minimum impact on the environment.

Over 200 products are presented in this issue. Many of them will be on display at the NAHB convention in Dallas, January 18-22. And many are special items that House & Home considers of particular interest.

The alphabetical index at right is a guide to the more than 35 pages of products that follow.

—ELISE PLATT





KITCHENS

1. Automatic ignition system for gas ranges eliminates pilot lights and saves fuel. Standard on a line of self-cleaning oven ranges, the system is cool and clean. Top burners are ignited by a spark set off by turning burner control dial. Broiler and oven are activated by a glow bar, Caloric, Topton, Pa. Circle 200 on reader service card

2. Whisper-Clean® dishwasher with 11 cycles features one for heavily soiled pots and pans and another for no-energy, natural drying. Sound-insulated for quiet operation, unit comes with reversible color door panels. Tempered black glass fronts shown are optional. Hotpoint, Louisville, Ky. Circle 201 on reader service cord

3. Large-capacity microwave oven can be easily built in without any kits or special tools. Unit features a see-through door, an interior light and a 15-minute timer for easy operation. Interior surfaces of durable acrylic and a tempered glass shelf are easy to clean. Magic Chef, Cleveland, Tenn. Circle 202 on reader service card

4. Versatile smooth cooktop incorporates four surface elements and a "Griddle 'n Grill" unit. Set into the center of the seamless cooktop, the grill has a cover which when closed serves as a warming tray. Each surface unit has individual "on" and "caution" lights. Thermador, Los Angeles. Circle 203 on reader service card

5. Freestanding double oven range with a ceramic-glass smooth cooktop features computer designed surface elements for even heating. Units, with continuous-cleaning, automatic ovens, have windowed, smoked-glass oven doors. Whirlpool, Benton Harbor, Mich. Circle 204 on reader service card

6. Smoothtop cooking surface, "Three-Plus-One," has three thermostatically controlled elements and one higher heat conventional unit. Controlled elements provide for precise heat adjustments. Pattern is Sunburst. Corning Glass, Corning, N.Y. Circle 205 on reader service card

7. Double-oven "Electri-clean" range is accented by a black glass door on the lower oven. A see-through window in the center of the door is protected by an automatic thermo-panel that raises into place for the cleaning process. The 30" wide range also features a smooth "Ceramatop" cooking surface. Frigidaire, Dayton, Ohio. Circle 206 on reader service card

8. Solid-state range hood, "Select-A-Matic," has a built-in housing which can accommodate any one of seven different power units. The versatile hood, offered in five colors, features a wrap-around filter and a dual light. Nutone, Cincinnati, Ohio. Circle 207 on reader service card

9. Single-handle kitchen faucet has a 9" spout and a long control lever for easy operation. Drip-free unit with all brass valving and quad ring seals carries a five-year guaranty. Rockwell, Morgantown, W.Va. Circle 208 on reader service card

10. Washerless single-handle faucet, "Easy-mix," has a patented lifetime control unit that provides trouble-free service. Heavy nickel-plated brass kitchen fitting shown is part of a complete line. Gerber Plumbing, Chicago. Circle 209 on reader service card

11. Convertible dishwasher is a portable model that can easily be changed to built-in using a special kit. Front-loading, four-cycle unit features a single-dial timer control. Top is of textured, zinc-coated steel. Tub has a durable, porcelain enamel finish. Maytag, Newton, Iowa. Circle 210 on reader service card

12. Minute Master® microwave oven features a solid state Vari-cook control that permits infinite adjustment of the power level between 65 and 650 watts. Unit can be set on a countertop or built in using an optional trim kit. Litton, Minneapolis, Minn. Circle 211 on reader service card

(For more on kitchens turn to pages 118 and 122.)













CABINETRY

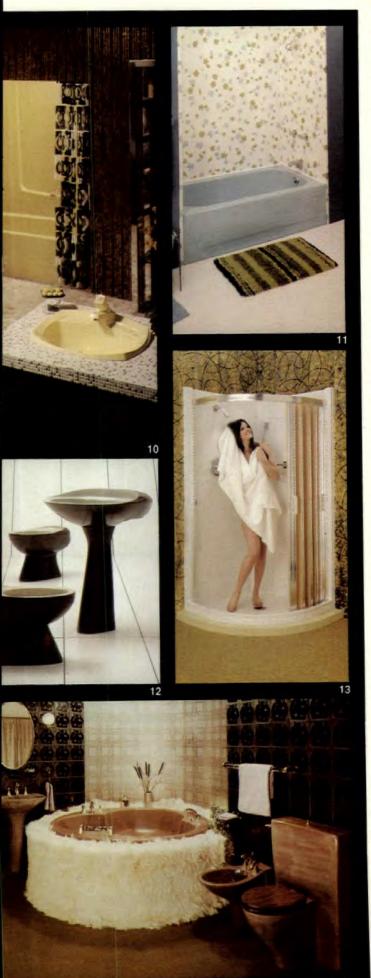
- 1. Contemporary-styled cabinetry, "Candlelight," has a vertical plank look in a warm, maple color. Easy-to-maintain, economy-priced cabinets have a seven-step finish with a vinyl top-coat. IXL, Westinghouse, Elizabeth City, N.C. Circle 212 on reader service card
- 2. Wood cabinet line, "Windsor II," has a raised panel design and a hand-rubbed oak finish. Silent-operating drawers, self-closing hinges and solid oak front frames are standard. Raygold, Boise-Cascade, Winchester, Va. Circle 213 on reader service card
- 3. Contemporary wood cabinetry imported from West Germany features solid timber doors in oak or Oregon pine finishes. The "9009" line offers a wide range of convenience fittings including the slide-out work surface shown. Oxford/Siematic, Oxford, Pa. Circle 214 on reader service card
- 4. Flush-front woodgrain cabinets, "Americana," have door and drawer fronts of Formica plastic laminate. Frames, sides, shelves and interior surfaces are coated with a matching vinyl film. Merillat, Adrian, Mich. Circle 215 on reader service card
- 5. "Oakbrook" cabinets with an Early American look feature hand-stained oak-veneer door panels. Frames and drawer fronts of imported hardwood are finished to match. Line has brass hardware. Kemper, Tappan, Richmond, Ind. Circle 216 on reader service card
- 6. "Gardencourt Westmont" cabinetry is impervious to most household abuse. Door fronts are molded of Environ, TM a new material that closely simulates the look of wood. Interior surfaces are sheathed in vinyl. Scheirich, Louisville, Kv. Circle 217 on reader service card
- 7. Kitchen storage wall includes a year 'round herbarium, a breakfast table with a Dupont Corian top, open shelves and a convenience outlet. Unit has ultra-violet lights for plants. St. Charles Mfg., St. Charles, Ill. Circle 218 on reader service card
- 8. Roll-out food cart is one of the options available in a line of imported kitchen cabinetry. The preparation and serving unit

- features a hot-plate top, bottle and spice compartments and push-through drawers. Cart rolls into base unit when not in use. Tielsa, Needham, Mass. Circle 219 on reader service card
- 9. "Latina" cabinetry with a handcarved look is accented by antique-brass finished hardware. Offered in a choice of woodgrains, units come in a range of sizes in single- and double-door models. Long Bell, Portland, Ore. Circle 220 on reader service card
- 10. Wood vanity cabinets with a classic American look come in a selection of sizes and models. "Winchester" shown is offered in standard and space-saver depths in double- and single-door versions. Connor, Wausau, Wisc. Circle 221 on reader service card
- 11. Contemporary vanity, "Ventura," is one of four in the "Northway" line. Unit, with a choice of cultured marble or vitreous china tops, comes in three sizes. One-piece doors are cast of polyurethane. Universal-Rundle, New Castle, Pa. Circle 222 on reader service card
- 12. Open louver design cabinetry, "Williamsburg," highlights a tropical-inspired bathroom. Shown in white, cabinets come in a choice of colors and a wide range of door and drawer combinations. Williams, Leigh, Elkhart, Ind. Circle 223 on reader service card
- 13. "Gloucester" vanity door, a country English design, is part of a changeable-door cabinet series. Doors, in a range of standard sizes, fit any Chemcraft vanity base. Style comes in oak, brown or white. Chemcraft, Elkhart, Ind. Circle 224 on reader service card

(For more cabinetry turn to pages 115 and 118.)







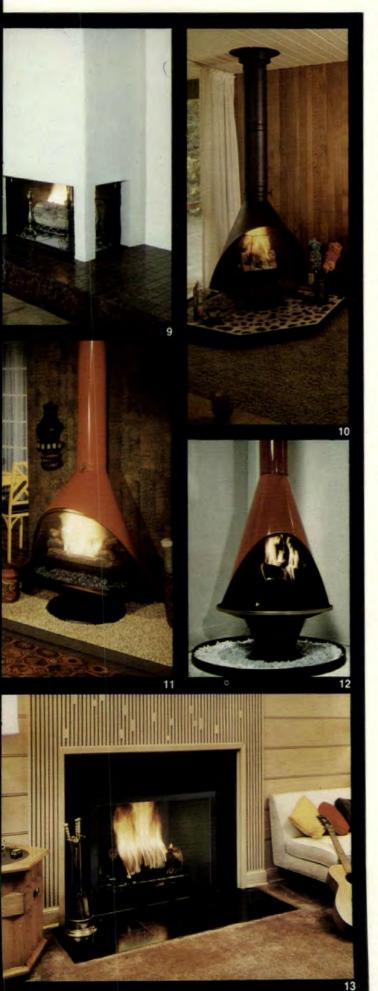
BATHROOMS

- 1. A cheery children's bathroom features a spacious "Restal" tub with a wide ledge for toys and accessories. An elongated Water Saver Cadet toilet and a Marledge lavatory are also shown. American Standard, New Brunswick, N.J. Circle 225 on reader service card
- 2. Vitreous china fixtures feature a duo-toned, slightly textured "Earthen Stone" finish. Available in topaz, shown, and in jade or slate, finish is offered on two model lavatories and a toilet. Borg-Warner, Mansfield, Ohio. Circle 226 on reader service card
- 3. Fully-appointed beauty cabinet, "Allibelle Lux." has three mirrored doors providing three-dimensional viewing. The molded plastic unit, in a choice of colors, offers a variety of storage facilities. Allibert, New York City. Circle 227 on reader service card
- 4. Self-rimming "Cameo" lavatory is injection-molded of easy-to-maintain Celcon plastic. The rugged, durable fixture is available, with or without an overflow, in three colors. Middlefield, Middlefield, Ohio. Circle 228 on reader service card
- 5. Single-handle 4" center lavatory set has a patented, leakproof cartridge assembly. Set is part of the "Avante" line of bathroom and kitchen fittings. Price Pfister Brass, Pacoima, Calif. Circle 229 on reader service card
- 6. Bamboo-framed medicine cabinet, "Malacca," comes in jade green as shown or in antique bamboo. Unit, built to be recessed, can be surface-mounted using a special sleeve. Nutone, Cincinnati, Ohio. Circle 300 on reader service card
- 7. Circular sunken tub, "Hellene," molded in one piece of fiber glass, is available in 6' and 7' widths. Offered in a wide range of colors, the rugged fixture is maintenance free. Novaglas, Garden City, N.Y. Circle 230 on reader service card
- 8. Six-foot wide vanity top, with an integral bowl, is molded of a plastic that simulates the look of marble. Top, with a right-, left- or center-set bowl, comes in six colors. Bradley, Menomonee Falls, Wis. Circle 231 on reader service card

- 9. "Moenflo Deluxe" showerhead has 60 spray jets that provide a fully-adjustable spray pattern. Unit, controlled by a single-handle valve, reacts instantly to changes in water temperature and supply. Moen, Elyria, Ohio. Circle 232 on reader service card
- 10. Pre-plumbed shower/tub control consoles are surface-mount units which fit standard 19" oval cutouts. Single-handle consoles require only three pipe connections. Vollrath, Sheboygan, Wis. Circle 233 on reader service card
- 11. Deluxe steel tub, "Grand Prix," is made with a special bottom support for extra strength and insulation. The moderately-priced 5' tub has a porcelain-enamel finish and a slip-resistant bottom. Crane, New York City. Circle 234 on reader service card
- 12. Italian-designed vitreous china fixtures, "Il Bagno," have a contemporary sculptured look. Sleek, pedestal-based units come in white and a wide range of colors including the brown shown. Hastings Tile, New York City. Circle 235 on reader service card
- 13. One-piece corner shower molded of fiber glass is a quarter round module. Unit features a patented Showerfold® enclosure, in a choice of colors, that glides open from either side for easy access. Kinkead, Chicago. Circle 236 on reader service card
- 14. "Northumbria" bath fixtures, a contemporary line from England, include a unique "Cloverleaf" tub. Series, with a sleek, sculptured look, comes in a choice of eight colors. A brown tone is shown. Adamsez, New York City. Circle 237 on reader service card

(For more on Bathrooms turn to page





DOORS/WINDOWS

- 1. French Provincial wood door, with a traditional carved panel, adds elegance to any entry. The "Chateau," constructed of selected kiln-dried Douglas fir or hemlock, can be painted or stained. Simpson Timber, Seattle, Wash. Circle 238 on reader service card
- 2. Polyurethane bi-fold door Grandor®, is reinforced with steel. Available in the panel style shown or in a panel/louver version, the maintenance-free, woodgrained door will not warp or swell. Grandor, Elmwood Park, N.I. Circle 239 on reader service card
- 3. Molded interior door with a classic raised-panel design has no joints or seams on the face. Wood-textured door comes primed and ready to paint. Caradco, Scovill, Dubuque, Iowa. Circle 240 on reader service card
- 4. Hardboard garage door, "Ranger," has the rustic look of rough-sawn cedar. Available in one- or two-car models, door can be stained as desired. All hardware is custom made, Raynor, Dixon, Ill. Circle 241 on reader service card
- 5. Vinyl-clad, "Perma-shield" wood windows in awning (shown) or casement styles now come in brown terratone as well as traditional

- white. Double-pane insulating glass and weather stripping are standard. Andersen, Bayport, Minn. Circle 242 on reader service card
- 6. Steel bi-fold doors feature a rich grained leather-like "TexTured" finish that is part of the metal. Electro-plated in white enamel, door can be installed as supplied or finished as desired. Leigh, Coopersville, Mich, Circle 243 on reader service card
- 7. Fiber glass panel garage door with an aluminum frame is strong but lightweight. Door, with a pebble grain finish, comes in a choice of colors. Translucent panels admit up to 60% of outdoor light. Crawford, Jim Walter, Tampa, Fla. Circle 244 on reader service card
- 8. "Therma-Tru" steel entry door, with rows of tier-stacked rectangular plant-ons, has a Mayan look. Door comes as a total system that includes a wooden frame, a sill and sidelights if desired. Lake Shore, Toledo, Ohio. Circle 245 on reader service card

(For more on doors/windows turn to pages 128 and 133.)

FIREPLACES

- 9. Prefabricated corner fireplace, with left or right opening, comes in a 36" or 42" width. The "E-Z-Set" zero-clearance unit can burn any fuel. A dual, air cooled insulation system is featured. Superior, Fullerton, Calif. Circle 246 on reader service card
- 10. Freestanding fireplace has prefabricated metal chimney components that meet UL requirements for extension up to 90' with up to four elbows per installation. Unit is adaptable to multifamily applications. Majestic, Huntington, Ind. Circle 247 on reader service card
- 11. Contemporary freestanding fireplace has a wide opening that provides 180° viewing. Offered as a total package, unit includes a ceramic hearth, a firescreen and a pipe suitable for installation up to a

- standard 8' ceiling, Martin, Huntsville, Ala. Circle 248 on reader service card
- 12. Factory-built freestanding fireplace comes in 30" and 36" diameters in six colors including the red shown. Units are available for wood, gas or electric fuel. Heatilator, Mt. Pleasant, Iowa. Circle 249 on reader service card
- 13. Woodburning built-in fireplace can be installed without a chimney starter section. Units, with a special "NSR" tag marking, can be connected directly to the triple wall pipe used to make the chimney. Preway, Wisconsin Rapids, Wis. Circle 250 on reader service card

(For more on fireplaces turn to page 141.)

EMPRODUCTS

















FLCORING

1. Elegant hardwood flooring in a hand-mitered "Jeffersonian" pattern is easy to install. The 10" square, 1/2" thick sections glue down directly to concrete or other dry, flat surfaces. Natural oak-grained wood is prefinished in a mellow brown and wire brushed for an antique look. Bruce, Memphis, Tenn. Circle 251 on reader service card

2. Level-loop carpet, "Hexagon," a geometric tile pattern, accents a kitchen and dining area. Constructed of 100% DuPont Antron nylon, it comes in five colorations. Countertops are of low-maintenance DuPont Corian. Monarch Carpets, Dalton, Ga. Circle 252 on reader service card

3. Oriental-styled vinyl flooring, "Kandar," is part of the no-wax, economy-priced "Gafstar" line. Offered in five colors, in 9' and 12' widths, flooring can be loose laid or installed conventionally. GAF, New York City. Circle 253 on reader service card

4. Textured-surface ceramic tile line, "Tuscany," comes in five new colors including the dramatic white-on-white, cloud, shown. Other shades are sapphire, juniper, malt and honey. Color coordinated grouts are available. American Olean, Lansdale, Pa. Circle 254 on reader service card

5. Decorative vinyl asbestos tiles, "Claridon," feature a geometric scrollwork pattern accentuated by two-color registered embossing. Low-maintenance stain-resistant tiles come in four colorways. Azrock, San Antonio, Tex. Circle 255 on reader service card

6. Ceramic-tile patterned, cushioned sheet vinyl, "Wexford Court," has highly defined embossing. Part of the "Bright Step" line, the easy-to-maintain flooring comes in five colorways in 9' or 12' widths. It can be loose laid or cemented. Armstrong, Lancaster, Pa. Circle 256 on reader service card

7. Luxurious "Somptueux" carpet is a rich velvet-cut, tufted of soil-hiding Antron II nylon. Shown in pearl white, the floorcovering comes in 21 shades. It retails for about \$14.95 a sq. yd. Graphic in the background is a bold geometric mural, "Inner Circle," from

Imperial Wallcovering's "E-z-Du Scenics & Murals" series. Collins & Aikman, New York City. Circle 257 on reader service card

8. Thick-pile cut and loop carpet, "Spring Promise," is tufted of Allied Chemical's soil-hiding Anso® nylon. Shown in a lively black, white and brown combination, carpet comes in 12 space-dyed colorations. It retails for about about \$12.00 a sq. yd. Berven, Fresno, Calif. Circle 258 on reader service card

9. Shag carpet, "Masterpiece," with a rich heather look, is a blend of as many as four shades of nylon yarn tufted together. Offered in the bluetone, shown, and in 19 other colorations, it retails for about \$11.95 a sq. yd. Lees, King of Prussia, Pa. Circle 259 on reader service card

10. Fanciful textured loop carpet, "Raggedy Ann 'N Andy," is a colorful Zimmer printed design of rag dolls on a quilted background. Constructed of soil-hiding, static-control Enkalure II nylon, it comes in two colorations in 15 widths. Jorges, Rossville, Ga. Circle 260 on reader service card

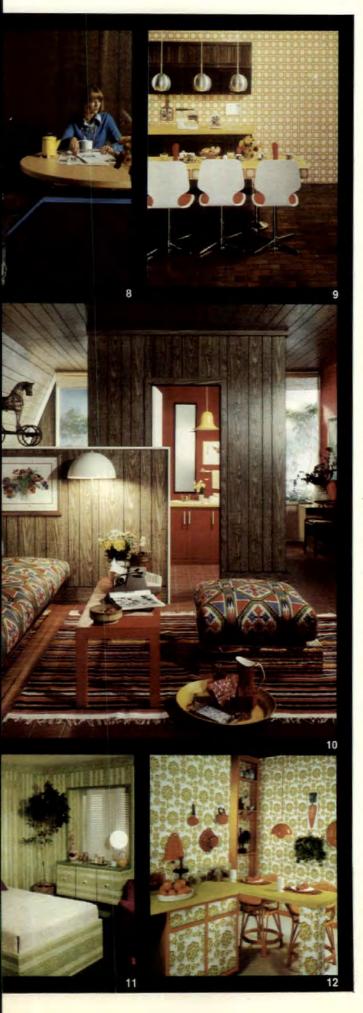
11. Indoor/outdoor carpet, "Fresh Dimension," constructed of Herculon® olefin fibers, serves as the playing surface on indoor tennis courts. The Dilo needlepunched floorcovering is cemented down directly to a 4" thick concrete base. Ozite, Libertyville, Ill. Circle 261 on reader service card

12. No-wax sheet vinyl, "Aristicon," has a thick, durable wear-layer making it suitable for heavy traffic areas. Shown, in sunny yellow and green, is the small scale "Arcade" pattern. The flooring comes in both 6' and 12' widths. Mannington Mills, Salem, N.I. Circle 262 on reader service card

(For more on flooring turn to page







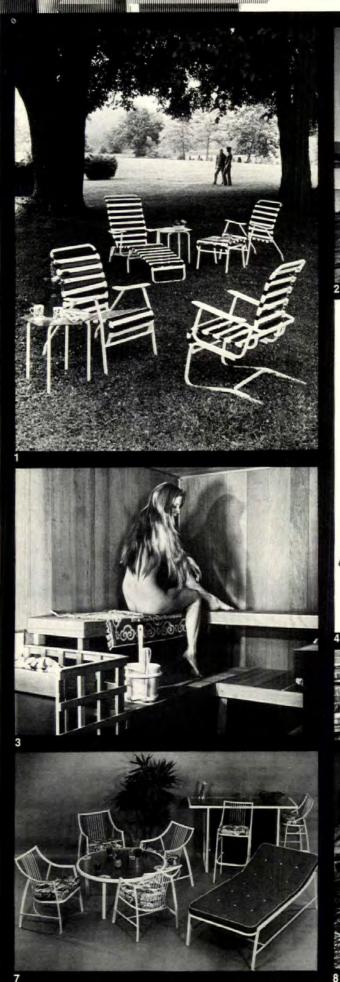
INTERIORS

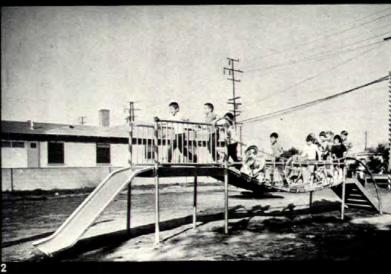
- 1. Prefinished hardboard paneling, "Casa Blanca," has the look of genuine hand-troweled stucco. Part of the "Natural" series, it is an ideal accent for Mediterranean or Tudor decors. Easy-to-install panels are available in 4'x8' sheets. Masonite, Chicago. Circle 263 on reader service card
- 2. Economy-grade redwood plywood has a face veneer with contrasting streaks of white sapwood. Offered in "Custom Ruf-Sawn" or "Select Saw-Textured," panels come in 4'x8', 4'x9' and 4'x10' sheets for indoor or outdoor application. California Redwood, San Francisco. Circle 264 on reader service card
- 3. Textured plank paneling made of hardboard has the rustic look of weathered wood. Low-maintenance "Country House Planks" come in easy-to-install 16"x8' T&G sections. Harmonizing moldings are available. Marlite Paneling, Dover, Ohio. Circle 265 on reader service
- 4. Contemporary vinyl wallcovering, "Londonderry," is a design of earth-toned stripes on a textured background. The pre-trimmed, fabric-backed material is part of the "Variation" collection. Pattern comes in three other colorways. James Seeman, Garden City Park, N.Y. Circle 266 on reader service card
- 5. Accent wallcovering, "Hula," a large-scale design of interlocking hoops, is coupled with "Fairmont," a coordinated background texture. Pattern, which can be used many ways, comes in four colors. General Tire, New York City. Circle 267 on reader service card
- 6. Prefinished "Iberia" paneling has a 3/32" thick veneer of Portugese cork laminated to a substrate of Homasote board. Lightweight panels, in a standard 4'x8' size, are noise-deadening and insulating as well as decorative. Homasote, West Trenton, N.J. Circle 268 on reader service card
- 7. "Letterforms" dimensional panels for indoor or outdoor installation are fabricated of heavy-gauge durable vinyl. Part of the "Wallsculpture" line, the easy-to-install panels are washable, waterproof and non-flammable.

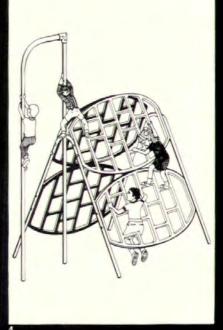
Decro-Wall, Elmsford, N.Y. Circle 269 on reader service card

- 8. Textured "Forestwood" paneling has the warm look of genuine rough-sawn cedar. Panels are finished with a smooth, glaze coat that is easy to clean. Offered in 4'x8' sections, material is resistant to denting and marring. Forest Fiber, Forest Grove, Ore. Circle 270 on reader service card
- 9. Ceramic wall tiles in a bold geometric pattern are an interesting accent in a contemporary dining room. "Petra 280," shown in shades of yellow and gold, comes in 41/2"x41/2" tiles. Floors are an easy-to-maintain glazed ceramic tile, in a "Savoy" design. Amsterdam, New York City. Circle 271 on reader service card
- 10. Oak-look printed paneling, "Almanack," is "Tic-embossed" with deep distress marks for an antique appearance. The random-grooved panels, offered in 4'x8' and 4'x7' sizes, come in four shades, including the silvery grey-brown shown. U.S. Plywood, New York City. Circle 272 on reader service card
- 11. Decorative printed plywood paneling, "Monterey," has the look of wallpaper. The easy-to-maintain panels, featuring a pattern of Spanish scrollwork stripes, can be used vertically or horizontally. Design comes in the green shown or gold. Evans, Portland, Ore. Circle 273 on reader service card
- 12. Cheerful vinyl wallcovering, "Lollipops," covers both walls and cabinet fronts in this cozy kitchen and dining area. Part of the "Life Style Vymura" prepasted collection, the wallcovering is easy to apply and maintain. ICI United States, Wilmington, Del. Circle 274 on reader service card

(For more on interiors turn to page



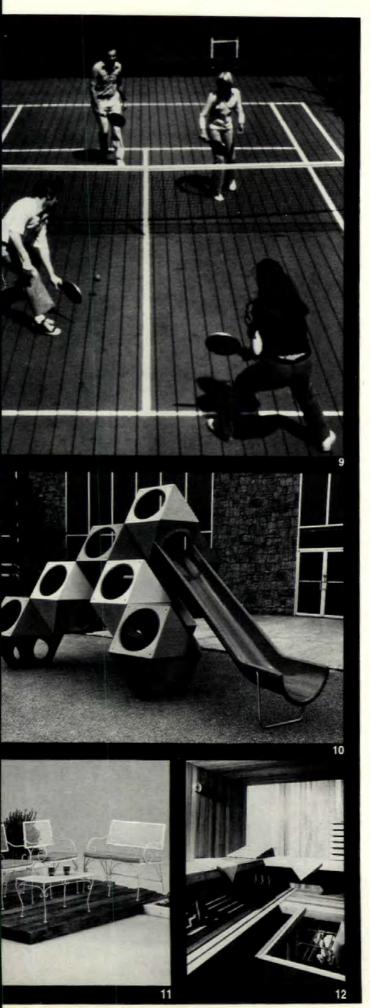












RECREATIONAL

- 1. Casual outdoor seating features wide, vinyl straps. Part of the Entertainer TM series, the collection shown is available in a range of ten color combinations. Frames are squared, tubular steel with a Vinyclad® protective finish. Wall Tube & Metal, Newport, Tenn. Circle 275 on reader service card
- 2. Versatile playground unit, Billy Goat Gruff, includes a stair, a safe swinging bridge, a tower and a stainless steel slide. Unit is decorated with six fiber-glass goats and two fiber-glass trolls. Miracle. Grinell, Iowa. Circle 276 on reader service card
- 3. Jumbo sauna, "Mark 810." can accommodate up to 15 bathers at one time. Interior surfaces are of quality grade K.D. redwood. Exteriors may be mahogany veneer or A.C. grade fir plywood. Fully insulated, pre-wired unit uses a 9 KW, 240v heater. Am-Finn, Camden, N.J. Circle 277 on reader service card
- 4. "Giant Tent" for the playground features a 10' fireman's slide pole. Cast all-aluminum grilles, which form climbing ladders, have widely-spaced steps and child-scaled gripping surfaces for secure playing. Playground Corp. of America, Long Island City, N.Y. Circle 278 on reader service card
- 5. Prefabricated sauna is pre-wired with a 110-v plug-in heater. Available in a range of sizes from 4'x4', two-bench units to large, commercial size models, saunas feature automatic control panels and special Finnish "Konno" sauna rocks. Maclevy, Elmhurst, N.Y. Circle 279 on reader service card
- 6. Full-sized billiard table. "Imperial," includes a burgundy-color cloth, sturdy, tapered legs and built-in, gold score counters on the rails. Available in two sizes, table has gum-rubber cushions and burn-resistant, laminated top rails. Ebonite, Miami Lakes, Fla. Circle 280 on reader service card
- 7. Lounge furniture group is a sleek addition to any contemporary recreation room or patio area. Included in the collection are a 44" round game table with a tempered-glass top and four lounge chairs; a bar and barstools; and a

- chaise lounge. Steel frames come in white or yellow finish. Bunting, Philadelphia, Pa. Circle 281 on reader service card
- 8. Ruggedly-built billiard table, "Wellington," features a three-piece matched slate top. Finished in a pecan woodgrain color, unit, with built-in score counters, comes in two sizes. It is available with pockets or automatic return. Brunswick, Skokie, Ill. Circle 282 on reader service card
- 9. Platform tennis courts, specially designed for builders, are sold as packaged kits to be assembled by the buyer. Both wood and all-aluminum courts are available complete with screening and overhead lighting. Reilly, Danbury, Conn. Circle 283 on reader service card
- 10. Modular play equipment consisting of cubes, tubes and slides is constructed of colorful, lightweight fiber glass. Easy-to-assemble and maintain all-weather units will not rust or rot. Novaglas, Garden City, N.Y. Circle 284 on reader service card
- 11. Casual furniture group, "Olympia," consists of a loveseat, two chairs and a cocktail table. The mesh furniture comes in a choice of five color finishes. Seat cushions and a reclining chaise are available. Arlington House, Atlanta, Ga. Circle 285 on reader service card
- 12. Pre-built insulated saunas come as complete packages including carpet heater, sauna stones. electrical controls, door, light and benches. Patented locking devices built into panels eliminate the need for screws and nails to assemble units. Viking, San Jose, Calif. Circle 286 on reader service card





STRUCTURAL/EXTERIORS

1. High-strength copper sheeting. "Tough 12," is a lightweight material suitable for flashing, fascia and roofing applications. The 12-ounce, .016 gauge copper sheet is available in 36"x96" and 36"x120" standard sizes. Copper Development, New York City. Circle 287 on reader service card

2. All wood spiral stairs are handcrafted of clear red oak or other hardwoods. Units are available knocked-down or assembled with grooved construction. Stairs come in four standard diameters. United Stairs, Keyport, N.J. Circle 288 on reader service card

3. Architectural fascia panels are galvanized steel protected by a baked-on finish. No sheathing is required. Panels are applied to nailing strips spaced 5' o.c. An optional "Tension Lock" fastening feature is offered. Childers, Houston, Tex. Circle 289 on reader service cord

4. "EconoFloor" roof and floor trusses are lightweight and easy-to-handle. Open webs facilitate service line installation and reduce sound transmission. Flat chord design provides a wider gluing/nailing surface. Automated Building Components, Miami, Fla. Circle 290 on reader service card

5. Lock-Deck® laminated decking of three or more boards set T&G is the essence of a glued diaphragm roof system. Glue is applied to the tongue of the decking so that it fills gaps between courses. Potlatch, Spokane, Wash. Circle 291 on reader service card

6. Prefabricated 20' wall panels for panelized homes can be crane-erected on site. Houses, with post and beam construction, can be built with variety of floor plans. Techbuilt, Spring Valley, N.Y. Circle 292 on reader service card

7. Insulating wall system consists of Zonolite® rigid styrene-foam boards butted together and held in place by Thermo-stud® serrated metal channels. Wall is a base for interior surface treatments. W.R. Grace. Cambridge, Mass. Circle 293 on reader service card

8. Vari-Tran® reflective glass, used in Thermo-pane insulating units, reflects outdoor heat in the summer

and retains building heat in the winter. Offered in three reflective qualities, the material comes in five basic colors. Libbey-Owens-Ford, Toledo, Ohio. Circle 294 on reader service card

9. Asphalt roofing shingles, "Timberline," offer the rustic look of wood shakes while providing fire and wind resistance. Available in a choice of shades, shingles have double-layer lamination and a random-butt design. GAF, New York City. Circle 295 on reader

service cord

10. Factory-finished panels are designed to be coordinated with the "Color-Side" line of horizontal lap siding. Made of insulite hardboard with an acrylic top coat, both styles are guaranteed for five years against deterioration. Boise-Cascade. Portland, Ore. Circle 296 on reader service card

11. "Hometown" shutters made of high-impact structural polyurethane are easy to maintain and will not rot, chip, dent or split. Offered in white, black, brown and green, shutters come in 12 lengths from 25" to 81". U.S. Plywood, Champion, New York City. Circle 297 on reader service card

12. Textured asphalt shingles provide an interesting three-dimensional effect for roofs. Heavy-weight "Architect 70" shingles have two surface layers and a 25-year prorated guaranty. Bird & Son, East Walpole, Mass. Circle 298 on reader service card

13. Asphalt roofing system, "Malabar," simulates the look of hand-cut cedar shakes. Offered in two styles in eight shades, roofing carries a Class CUL fire rating.' Low-maintenance, weather-proof system resists wind damage. U.S. Gypsum, Chicago. Circle 299 on reader service card

(For more on Exteriors turn to page 124.1





SECURITY

- 1. Deadbolt thumb-lever entry sets combine security and beauty. Units, available in three styles, feature six-pin tumblers, hardened-steel revolving bolt centers, spin-free escutcheons and heavy duty housings. Amerock, Rockford, Ill. Circle 301 on reader service card
- 2. "Embassy" lever set with a dead-bolt option, has a panic-proof mechanism, all-steel internal workings and long-life bearings. Units are available in antique-brass or old-iron finishes. National Lock, Rockford, Ill. Circle 302 on reader service card
- 3. "Jamb-gard" intrusion alarm for individual apartments is a flush-mounted, low-voltage unit. The key-activated system is designed to be easily installed in a hollow metal door frame. Continental, Hicksville, N.Y. Circle 303 on reader service card
- 4. Traditional-style locksets, "Dover" (left) and "Portola" (right), are available in a wide range of functions. Part of the "A" Series, both models come in a choice of finishes to blend with any decor. Schlage, San Francisco. Circle 304 on reader service card
- 5. Early warning fire detector is an ionization-type unit capable of sensing combustion at the earliest stages. The compact, solid-state unit can be easily surface mounted. BRK Electronics, Aurora, Ill. Circle 305 on reader service card
- 6. Fire alarm control panel is for use in supervised, non-coded, single-zone systems. Unit features an audible warning signal, a silence switch, a reset button and an amber trouble light. Edwards Engineering, Norwalk, Conn. Circle 306 on reader service card
- 7. Residential fire alarm utilizes a solid-state ionization type detector. Easily-installed on ceilings, battery-powered unit has an audio warning that signals failure. Kwikset, Anaheim, Calif. Circle 307 on reader service card
- 8. Heavy-duty tubular deadlock, "Model 921," has a 1"-long deadbolt, a hardened-steel internal security ring, and a heavy gauge box strike. Unit comes in range of finishes. Arrow Lock, Brooklyn, N.Y. Circle 308 on reader service card

- 9. Tamper-resistant deadbolt lock has a protective steel latch case designed to fit the shape of the bolt and to enclose the entire latch. The 1" throw bolt is a full 5%" across. Dexter Lock, Grand Rapids, Mich. Circle 309 on reader service card
- 10. Residential smoke and fire alarm utilizes photoelectric detectors capable of sensing fire in early stages. Easy-to-install unit includes a trouble circuit to warn of failure. Emhart, Berlin, Conn. Circle 310 on reader service card
- 11. Self-contained fire detector senses the presence of smoke and immediately sounds an alarm. Easy-to-install unit is available in a permanent model or a portable, plug-in version. Westinghouse, Pittsburgh, Pa. Circle 311 on reader service card
- 12. Early warning fire and smoke detector is a self-contained, ionization type device. Unit, which emits a loud, sustained alarm, is available in battery-operated and electric models. Sears Roebuck, Chicago. Circle 312 on reader service card
- 13. Two traditional locksets, "Halo" (left) and "Marathon" (right), have concealed-screw construction. Part of the Pacemaker line, the easy-to-install units fit into any previously bored door. Harloc, West Haven, Conn. Circle 313 on reader service cord
- 14. "El Cid" sectional handle set combines styling and security. Unit, with a rugged locking twisted handle, features a 1" deadbolt. Used in pairs or as a single installation, set comes in many finishes. Weiser, South Gate, Calif. Circle 314 on reader service card





FURNITURE

1. Large scale modular seating, "Erasmo," features removable, wedge-shaped back cushions that flip up to convert backs to high lounge posture. Group is offered in a range of upholstery materials. Atelier, New York City. Circle 315 on reader service card

2. Modular storage system, "INTERwall," made up of a series of interchangeable components, can include cabinets, drawers, shelves and bar units. System is constructed of particleboard with a scratch-resistant vinvl finish. Interior Products, New York City. Circle 316 on reader service card

3. Matching etagere and bookcase are decorative accent pieces suitable for use in any room. Units have structures of mirror-polished chrome-steel and glass shelves framed in steel for extra strength. Cosco, Columbus, Ind. Circle 317 on reader service card

4. Exciting seating system, "Pollorama," consists of upholstered foam blocks held together by 21/2" belts. Modular seating, which offers unlimited design possibilities, is suitable for use in public areas. Removable upholstery comes in a choice of fabrics. Knoll, New York City. Circle 318 on reader service card

5. "Normandie" lounge chair, designed by Sig Udstat and George Dandridge, has a curved contemporary form. Chair and matching sofa are constructed of foam over a hardwood frame. A range of upholstery materials is offered. Helikon, New York City. Circle 319 on reader service card

6. Armless lounge chair is one of three basic components in Fillmore Hardy's modular seating group. Pieces are constructed of Dow "Inner Foam" forms set on stainless steel bases. Upholstery is a special "Stretchwool" that can be removed for cleaning. Stow Davis, Grand Rapids, Mich. Circle 320 on reader service card

7. Lounging and loafing furniture, "Terraza," designed by Ubald Klug, comes in right- and left-facing units. Pieces can be combined in an unlimited number of arrangements. Seating is upholstered in Swiss leather. Stendig, New York City. Circle 321 on reader service card

LIGHTING

8. "Trak-3" lighting system features high capacity 3-circuit power. Easy-to-install system with plug-in connectors has no exposed wires. A wide range of lights, including the two models shown, is offered. Progress, Philadelphia. Circle 322 on reader service card

9. Track lighting for ceiling or wall mount directs light where it's needed. Offered with a choice of three spotlight styles, the plug-in system comes with a 4' track. Lightolier, Jersey City, N.J. Circle 323 on reader service card

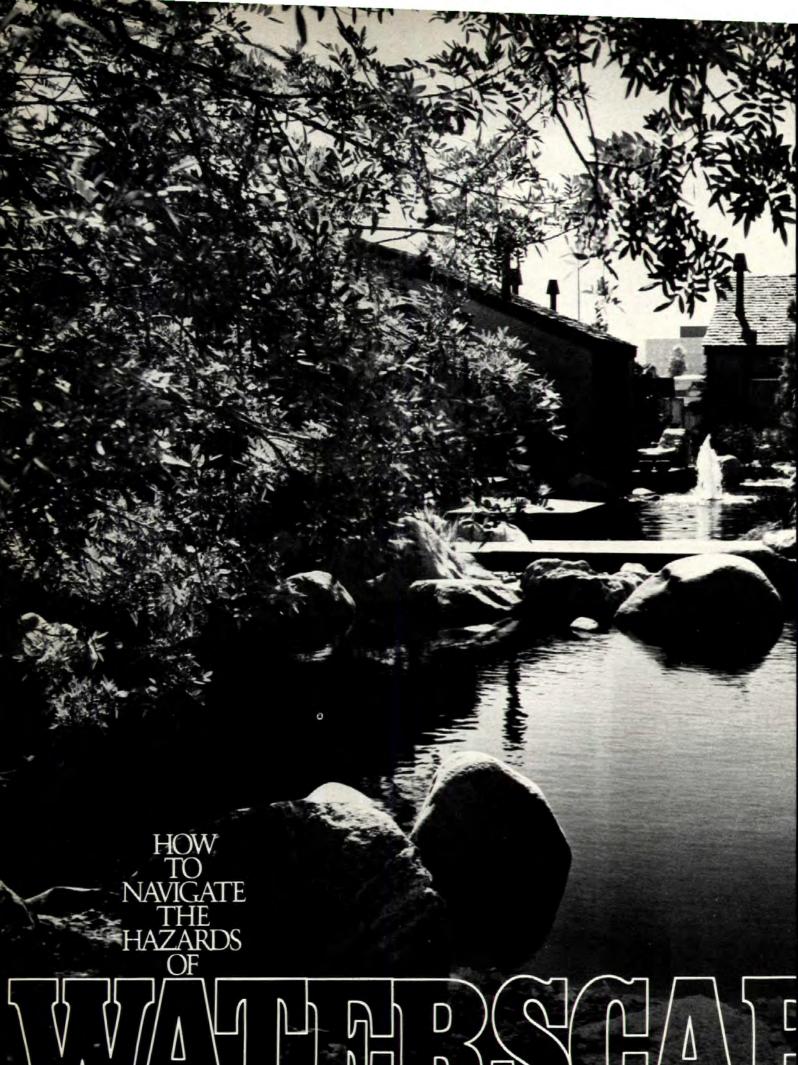
10. Chain hung fixture is one of three in a wood-accented series. Cedar is combined with flat-black steel for a natural contemporary look. A chandelier and a ceiling model are also offered. Thomas, Louisville, Ky. Circle 324 on reader service card

11. "Wire Cage" lantern is a contemporary adaptation of an Early American design. Fixture is available in wall and post-mount models and a chain-hung unit. American Lantern, Newport, Ark. Circle 325 on reader service card

12. Rural redwood mailbox with a lighted post is from the "Canyon" series of indoor/outdoor lighting. Wall and post-mounted lights and a range of mailboxes are offered. Sylvan, Canoga Park, Calif. Circle 326 on reader service card

13. Laminated wood standards are treated with "Cellon" to protect against insects and decay. Light Risers®, in five designs, come in a range of heights. Kopper, Pittsburgh, Pa. Circle 327 on reader service card

(For more on lighting turn to page 150.1





Almost nothing holds more appeal for renters and buyers than water. That's why so many developers are building ponds and streams in the middle of their projects. Waterscaping like this takes knowhow. Mistakes can lead to all sorts of maintenance headaches and expenses, and more than one developer has ended up turning his waterscaping into flower beds after a couple of years.

To find out how to avoid the most common mistakes, House & Home talked to one of the few landscape architects to specialize in waterscaping—Don Brinkerhof of Lifescapes Inc. of Santa Ana, Calif. In this article he describes some of the basics, using as illustration a 136-acre apartment project in Fullerton, Calif. known as The Lake, which he waterscaped together with land planner and consultant Bob Davis of M. Robert Davis and Associates.

Mistake No. 1: Planning too much moving water

For the unwary, there's always the temptation to go for the dramatic effect with lots of streams and waterfalls—and to forget that it takes pumps to move the water, electricity to move the pumps and money to move the electricity.

The basic maintenance costs for waterscaping—chemicals, manual skimming and other things needed to keep water free from algae and debris—are actually lower than for conventional landscaping. Brinkerhof estimates that they average \$200 a month per acre of water versus \$450 per acre of planted land.

But water must be circulated to keep it aerated, so you need a pump. And the more action and drama in your waterscape, such as waterfalls, streams and fountains, the more pumps and the more horsepower you require, and the higher your energy expense. The cost of electricity represents the real cost of waterscaping.

Lake depth is a critical factor in pumping loads, so Brinkerhof lakes are normally no deeper than two inches, which requires about 14 horsepower per acre for circulation. Brinkerhof has also decided that filtration equipment is not necessary; it impedes water flow and makes pumps less efficient.

Generally, however, for office complexes, \$50,000-plus condominiums and 30¢-to-38¢-a-sq.-ft. rental apartments, he keeps energy requirements at about 90 horsepower per water acre.

The per-acre averages do not correspond to the actual horsepower used, however, because the average project doesn't have a full acre of water. For example, the streams and waterfalls of the apartment complex pictured in this article average 84 horsepower per water acre, but as they cover an area of only 30,000 sq. ft., the total energy requirement is really only 58 horsepower. And based on a rate of 3¢ per kilowatt hour, the cost of operating these special effects averages \$656 per month.

Mistake No. 2: Doing the job without the architect's supervision

It's foolhardy to treat waterscaping as though it were landscaping, handing the architect's plan to the landscape contractor and leaving the installation up to him and his workmen. For one thing, there are too many surprises hidden under the ground—such as utility lines turning up where they're not supposed to be. And for another, there are too many esthetic judgements involved in the waterscaping process to permit anything more than a rough plan on paper. "We work out most of the details right on the job," says Brinkerhof.

In planning waterfalls, for example, Brinkerhof waits until he sees what the grading looks like. He had planned for a major waterfall at The Lake's recreation building, where leasing operations are head-quartered. But it was only when he saw the location that he decided to build a three-part waterfall.

The same goes for boulders and trees. Brinkerhof locates them roughly on an initial plan, but decides on final placement strictly by eye and personal touch.

"The art of finessing boulders is like creating a sculptural arrangement, and it must be

done in the three dimensions of the job site rather than the two dimensions of a blueprint. You can pick out specific trees in advance at the nursery, but you can't do that with boulders. You order a load from the quarry and you take them as they come."

If a stream or pond has to be relocated because of unforeseen problems such as misplaced utility lines, it's a whole new ballgame. The effect on all the related components—trees, boulders, bridges, walkways, etc.—is usually drastic enough to require large-scale redesign. And because any delay would slow or halt expensive earth-moving and materials-handling equipment, the architect must be on hand to do his redesigning and adapting on the spot.

Labor accounts for much of the cost of waterscaping. The 700 tons of boulders used at The Lake, for example, cost \$10 to \$12 per ton delivered, but their in-place cost came to \$25,000.

Mistake No. 3: Failing to synchronize construction details

Trees, boulders, shorelines and walkways are all integral to a waterscaping scheme, so they have to be put in place simultaneously.

All work requiring heavy equipment must be done at once, starting in the most confined areas of the site and working out. The reason: Once boulders are in place, trucks and tractors will have trouble maneuvering around them.

That means a great deal of coordination must be done to make sure that the various work crews arrive at the proper time, especially since separate contracts are generally let for concrete work, landscape planting, lake construction (which includes boulder placing) and plumbing.

As soon as rough grading is completed (see photos pp. 106-107), including excavation of lake and stream beds, truckloads of boulders for shorelines are spotted around the site and tractors begin placing them. Major trees are hoisted into place at the same time, and ready-mix trucks pour concrete for walkways, steps and bridges.

Then concrete vaults for pumping equipment are distributed around the project. At The Lake, pumps were placed in five different locations (see site plan opposite), and trenching for water lines to and from the vaults was done at the same time as other heavy-equipment work.

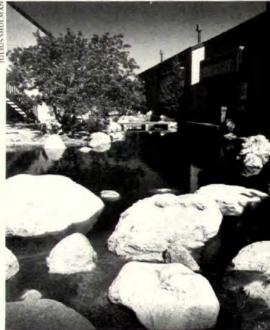
After the heavy equipment moves out, shorelines are completed by pumping earth-colored concrete between the boulders and sprinkling it with gravel for a natural look. Then the ground is fine-graded and small plants and ground cover put into place.

Finally, lake and stream beds are filled with water and chemicals for a two-week sealing treatment.

Creating water effects: It's a matter of gallons per minute

The Lake's water effects range from a 100 gpm jet in the main lake to a 1,500 gpm waterfall in front of the recreation center.

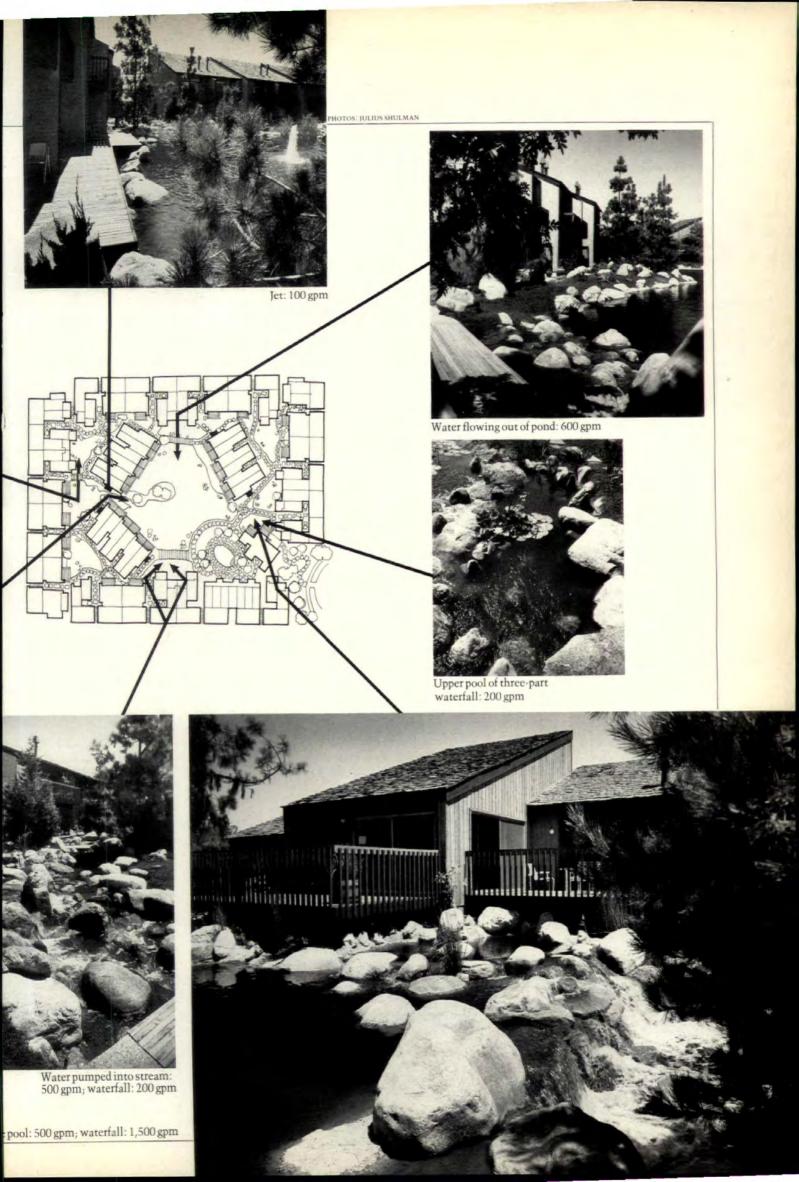
A rough rule of thumb for translating these flow rates into energy needs is that one horsepower will move 100 gpm.



Stream flowing under bridge: 600 gpm



Stream (with jet) flowing around peninsula: 600 gpm



Mistake No. 4: Using inadequate sealing techniques

The penalties for error at this stage can be great: undermined foundations and chronically high water bills. So you'll want to pay close attention to how your lake and stream beds are sealed.

Brinkerhof saves time and money by using a liquid chemical-Soil Sealer-13 (SS-13), made by Stabilization Chemicals of Orange, Calif.—instead of the usual plastic membranes or layers of cement. SS-13 has been used in reservoirs and irrigation canals for years, but it is still not widely used for ornamental water.

The problem with plastic or cement liners is that while they can create an impervious water barrier when first installed, after a time plastic may be punctured or torn and cement may crack. SS-13, on the other hand, does not form an impervious water barrier, but permits seepage at a negligible rate.

Building departments that Brinkerhof works with accept the chemical sealer as long as shorelines are at least five or six feet from building footings. A lender once objected to using the chemical instead of a watertight liner because of past seepage problems with another waterscaped project, but Brinkerhof now has enough experience to overcome such objections by simply pointing to past performance.

To determine how much chemical to use. Brinkerhof sends a soil sample to the manufacturer. His costs for the sealer have ranged

from 15¢ to 20¢ per sq. ft.

As photo No. 9 (opposite) shows, sealing a lake bed with SS-13 isn't a process designed to entice prospective buyers or renters. Not only does the water turn white. but an oily scum forms on the surface. After the sealing process is complete, the scum disappears, and the pumping system can be turned on.

Brinkerhof still uses plastic liners in stream beds where erosion may be a problem, but he combines the chemical with them. The plastic membrane is covered with a bed of sand which is in turn sealed with the chemical for added protection.

In his lake beds, Brinkerhof also mixes in soil cement to provide a firm surface so that maintenance men can walk around on the bottom without sinking in mud. Some cities require that soil cement be placed just around the shorelines of artificial lakes for a distance of up to 15 ft. out into the water, but Brinkerhof recommends a complete soil-cement bed for all his jobs. It costs an additional 10¢ to 15¢ per sq. ft.

Finally, to keep the completed waterscaping looking fresh, Brinkerhof recommends the use of blue dye in addition to the usual algae-killing chemicals.

-H. CLARKE WELLS

Waterscaping The Lake: Three months from grading to finished job



Waterscaping expert Don Brinl (left) worked with land planne Davis (right) on the design



1. The lake bed is rough graded into shape, then boulders are dumped near their final locations. precise placement will await Brinkerhof, who completes his final design on site.



2. Soil cement is mixed into the lake bed and a sheepsfoot roller is used for compaction. Then locat of water-circulation piping—to be buried 18" to 24" deep—are outlined with lime



3. Final boulder placement is done. Planting of major trees takes place at the same time, as heavy equipment wouldn't be able to move in after the trees are planted.



4. At the same time, a plastic line laid down in the stream bed to prev erosion from the moving water.

PHOTOS 1-9: DAVID ROSS



Here's how the rough-graded pond bed looks after the ulders are placed. Compare with photo 10 (below).



6. Flatwork—concrete sidewalks, steps, bridges, etc.—is installed prior to finish grading. Photo above shows walks bordering stream bed.



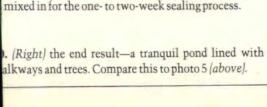
This is the pond bed after finish grading. It is now ady to be filled with water and sealer.

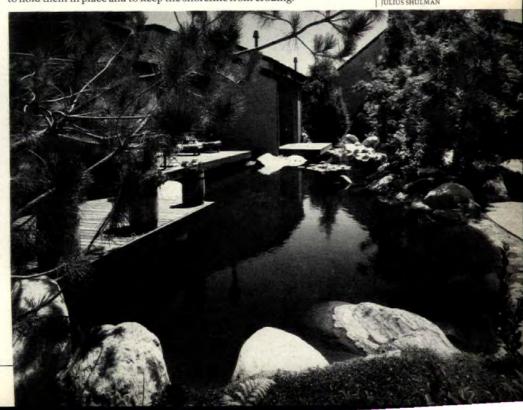


8. Earth-colored concrete is pumped between boulders along shoreline to hold them in place and to keep the shoreline from eroding.



(Above) water turns white after the chemical sealer mixed in for the one- to two-week sealing process.







* Architect Walter Richardson and planner Ralph Martin tell you . . .

HOW TO CIVILIZE THE AUTOMOBILE IN MEDIUM-DENSITY PROJECTS

It's in the medium density project that the car creates the most trouble.

It doesn't cause much trouble in low-density, single-family projects—because these projects usually offer plenty of garage space set well back from the street, and driveways create adequate guest-parking area.

And there's not much that can be done about the car in very high-density projects. Either the budget will allow adequate and usually expensive parking facilities (under a highrise, for example), or the price or rent range makes such facilities impossible and vast parking areas must simply be accepted as an unavoidable evil.

But in between these densities at, say, from four to ten d.u. per acre—the problem of the car becomes acute.

On the one hand, lots are small and setbacks short, so garages are generally right up on the street. And frontages are small, leaving insufficient curb room for guest parking.

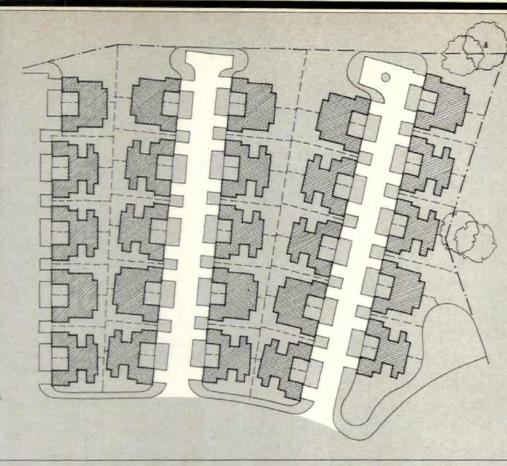
On the other hand, buyers in these projects—especially in medium and upper price ranges—will not accept the over-obtrusive automobile as an unavoidable evil.

How to deal with the problem? The place to start, says Martin, is to separate local and through traffic.

"Let's forget arterials and concentrate on local roads and access to dwellings. When space and politics permit, we can devise some innovative ways to deal with the car."

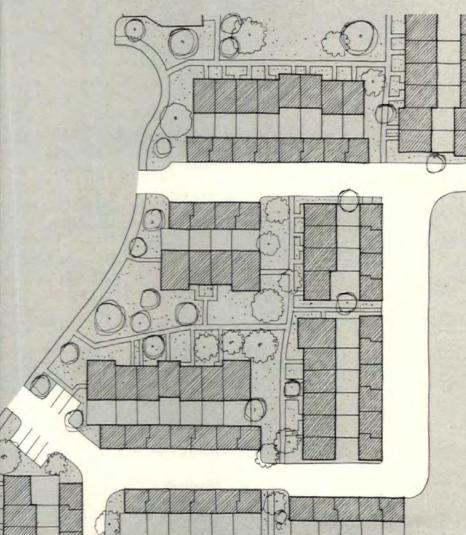
On the facing page you'll see two basic aspects of the medium-density car problem. And on the four pages that follow, Richardson and Martin suggest a number of creative solutions for different types of medium-density projects.

*Walter Richardson, FAIA, and Ralph Martin, AIP, are partners in the firm of Richardson-Nagy-Martin of Costa Mesa, California. The firm's name has just recently been changed from Walter Richardson Associates.



Problem No. 1: The garage-door streetscape

This is what happens when conventional single-family planning is used in medium-density situations. Instead of one house for every 100' or so of frontage, this project has two houses, in the form of duplexes, and a net density of eight d.u. per acre. The result is a veritable canyon of garage doors, at best monotonous and at worst, when doors are left open, a showcase of all the junk that families keep in garages. The drives are just long enough to provide guest parking, and the overall result is that the automobile dominates the entrances to the homes as well as the streetscape.



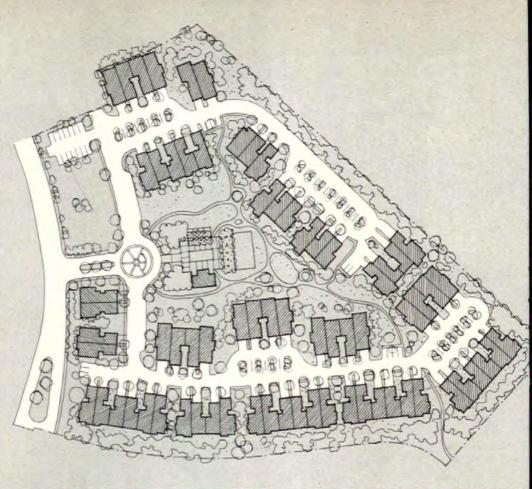
Problem No. 2: Gasoline alley

One of the most widely used schemes to relieve the above problem is what might best be called the back-alley plan. An example is shown at left. The front entrances to these townhouses have been completely separated from the automobile access; nicely landscaped greenbelts lead from the street to the front doors, while on the other side of the units, garages open onto what might best be termed car service roads.

But while the front entrances are to some extent improved, other problems are created. Streets are even bleaker than those in the plan above; wall-to-wall garage doors and unrelieved road surface. Guests must approach the houses through these streets, and then they have an overly long walk, however attractive, to the unit entrances. Density of this project: ten d.u. per acre.

Solution: Staggered front elevations and street islands

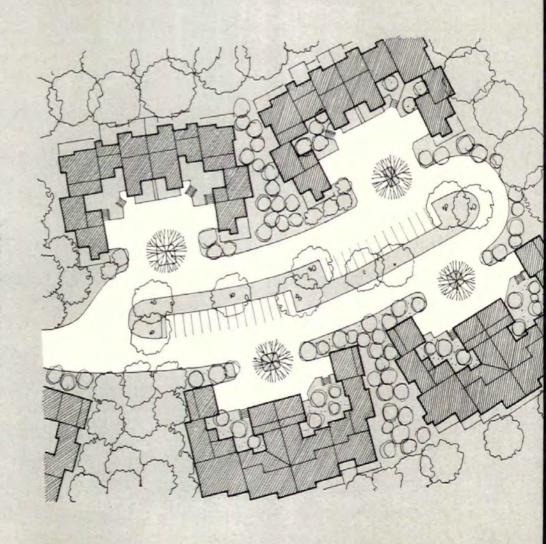
The plan at right-and indeed, all of the plans here and on the following pages-are based on Richardson's and Martin's conviction that both vehicle storage and people entrances should be on one side of the unit, and living activities oriented to the other side. This townhouse project, with a density of 61/2 d.u. per acre, is not basically different from the ones on the preceding page. But the stultifying effect of too many garage doors is greatly diminished, first by offsetting the garages from each other and second by dropping small islands into the streets. These islands break up the canyon effect and also provide relatively unobtrusive areas for guest parking.

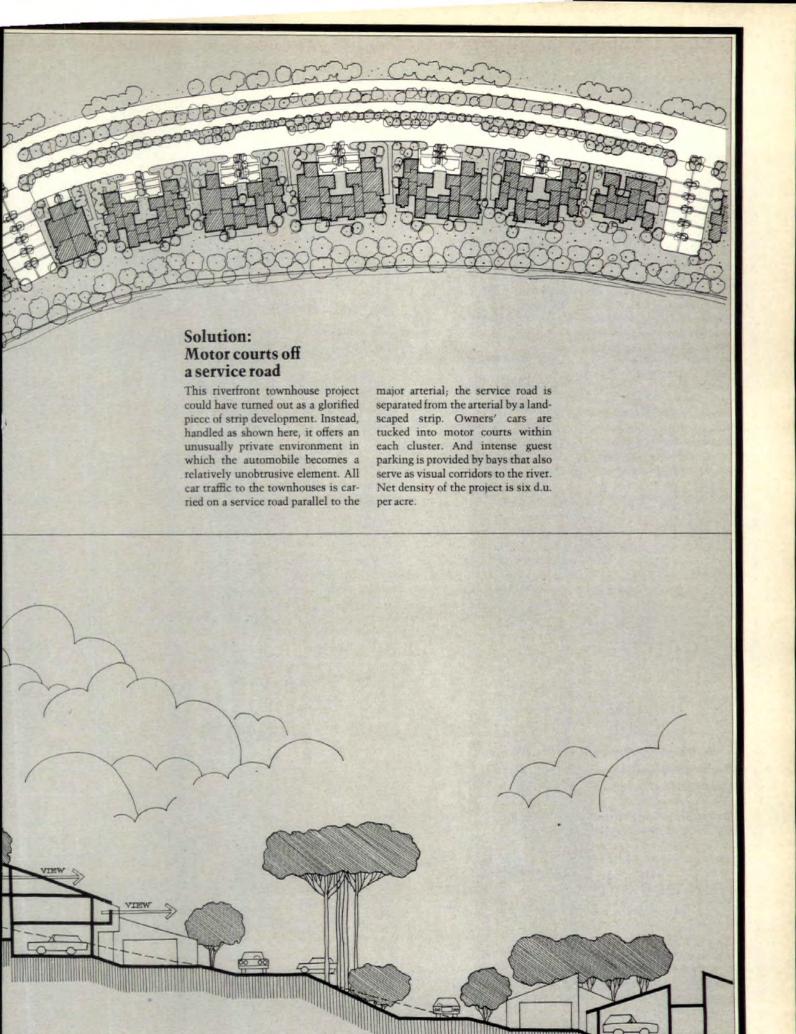


Solution: Large islands and auto courts

In this fourplex project the islands have been stretched out so that no units face each other across the street. The result is a sort of single-loaded loop street with guest parking tucked into the islands, and offstreet courts which serve both as driveways and guest-parking areas. Density is 6½ d.u. per acre.

A possible side benefit of this scheme is illustrated by the section at the bottom of the facing page. On downhill sites there can be an elevation difference of as much as 25' between houses on either side of the street, offering clear views for both uphill and downhill units.

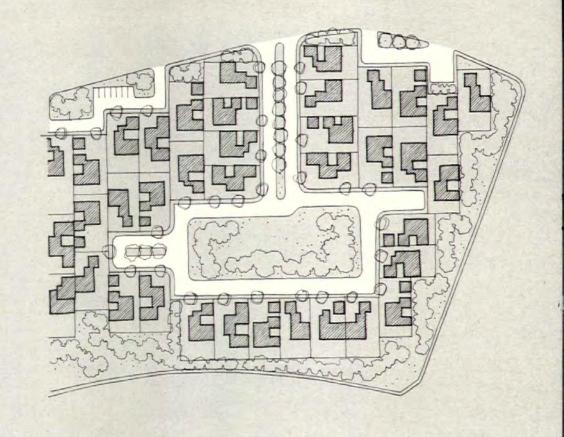




Solution: pocket parks and dividers for patio houses...

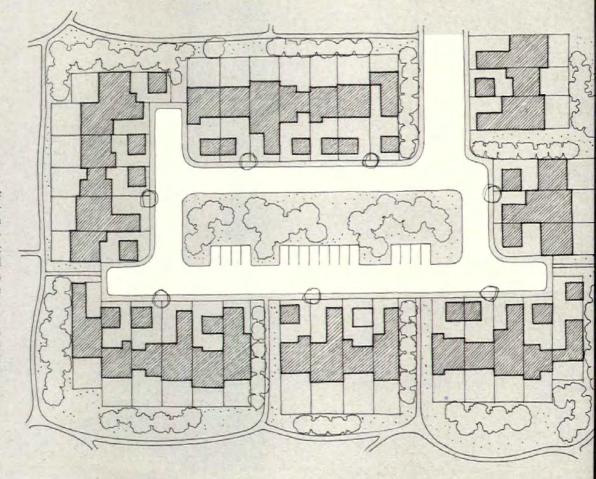
Patio houses are great inside and a problem outside. They offer very private living both indoors and out. But the same feature that creates that privacy—the enclosure around the lot—can also turn the street into a canyon with walls broken only by a succession of garage doors or carports.

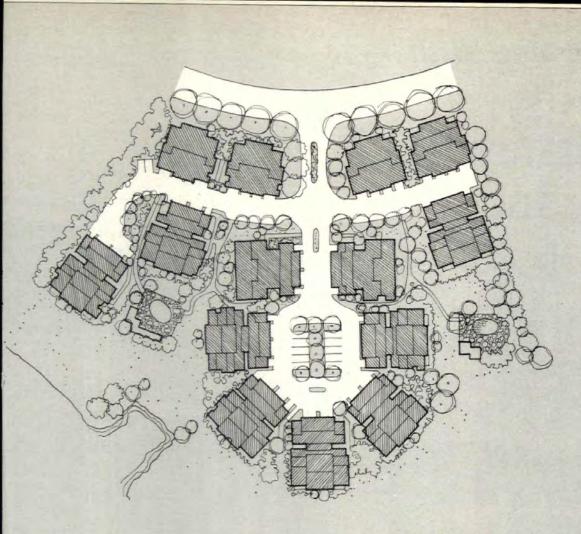
This patio-house site plan permits no such canyons. All the houses front on either a street island or a park, offering more open green space than many a conventional single-family project. And because the streets are single-loaded, the automobile intensity of the neighborhood is relatively low. Density is five d.u. per acre.



... and the same, plus island parking, for townhouses

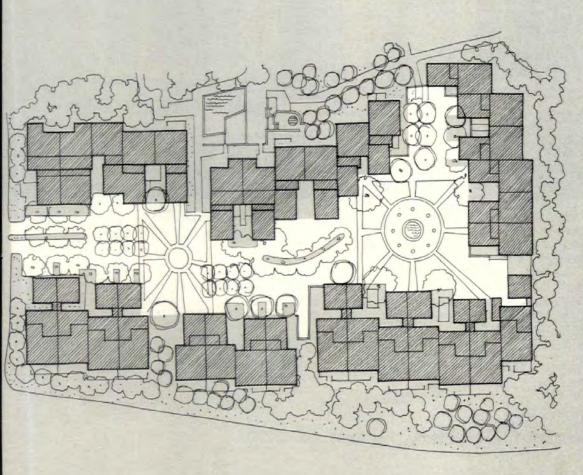
Essentially this is the same scheme as that for the patio-house layout above (it is, in fact, part of the same subdivision). The principle of a sort of super cul-de-sac wrapped around a small park is repeated. But, because the density is higher with town-houses (eight d.u. per acre), and because there is less frontage per unit, additional parking for guests is provided in bays on one side of the park.





Solution: clusters with arms for high-priced duplexes

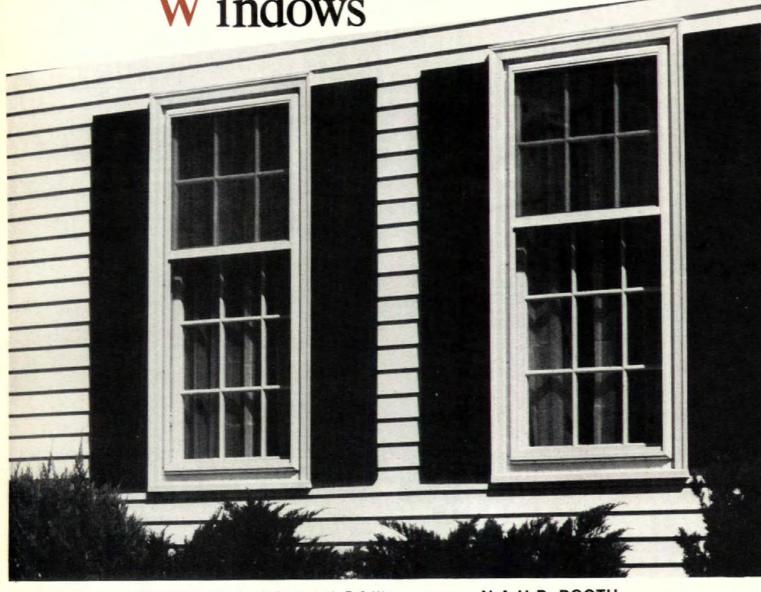
These units overlook a golf course, so it was important to the ambience of the project that there be a minimum of paved area and as much land-scaped area as possible. The scheme shown here provides just that. Fourteen units share the cul-de-sac court and another 14 are on extension drives. Note that in only two cases do buildings face each other across a narrow drive. The net density is seven d.u. per acre.



Solution: Auto courts that are part of the landscaping

This plan is based on the if - you - can't-lick - 'em - join -'em principle. The paved areas necessary for access roads and drives are heavily planted with trees and shrubs. And at intervals, fountains and pieces of sculpture form the hub of court areas that are finished in textured and colored concrete. So instead of detracting from the environmental attractiveness of the project, the automobile areas actually enhance it. And the cluster feels far more open than its eightd.u.-per-acre would indicate.

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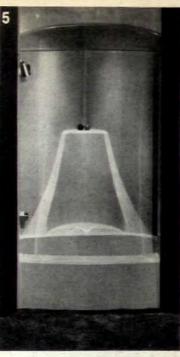
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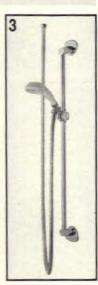














RODUCTS: BATHROOMS

Wood vanity cabinets, available in wide selection of sizes and styles, ve total design versatility. Offered ith a full range of options and a oice of decorative hardware, cabits can be practically customized builder specifications using stock ems. Cabinets come in color finnes or in natural cherry, oak or can woodgrains. Cabinets, draws, and combination units are ofred. Quaker Maid, Leesport, Pa. ircle 337 on reader service card

"Kenilworth" medicine cabinet ith a "Twirl-a-Way" mirror prodes total three-dimensional viewg. Storage space is concealed bend each of the three movable mirred panels. The center mirror, ith a magnifying mirror on the ck, tilts down for full length viewing and pulls forward for close-up grooming. Surface-mounted cabinets in a choice of finishes come in 36", 48" and 60" widths. Units have decorative frames: General Bathroom, Elk Grove Village, Ill. Circle 338 on reader service card

3. Bar-mounted personal shower is a versatile addition to any bathroom. "Model 1501", shown, features a white gloss finish hand shower with an all around spray pattern. It is mounted on a chrome-plated brass 24" bar. Unit, with a 59" chromeplated hose, swivels and moves vertically when attached to the bar or can be hand held. Deluxe pushbutton or adjustable spray models are also offered. Alsons, Somerset, Mich. Circle 339 on reader service 4. Lightweight acrylic bathtub, "Dolphin," is reinforced with fiber glass for strength. The hard, durable, glossy, acrylic surface is highly resistant to impact, damage, stain and abrasion. Offered in white, blue, beige and gold, the 60" x 30" tub comes in one model for standard rough-in and one for above the floor. Powers Fiat, Skokie, Ill. Circle 340 on reader card

5. Corner bathtub and shower combination, "Model 110," features a molded-in seat and soap tray. Cast of Corlglas, the unit is available in a variety of decorator colors. Unit, with a 501/4" tub length and an overall height of 84", is designed to fit into any corner of the bathroom. Corl, Fort Wayne, Ind. Circle 341 on reader service card

6. Decorative 4" bathroom faucet is part of the full "Waverly" line of kitchen and bathroom fittings. Offered in a range of popular colors, plastic handles feature bold, squared-off look with no angles or crevices that collect dirt. Mansfield, Mansfield, Ohio. Circle 342 on reader service card

7. Sectional wrap-around bathtub is cast of fiber glass reinforced Duracil® acrylic. Offered in white, avocado and gold, the bath features a molded decorative design on both back and side walls. A pair of steel safety bars, attached to studs for strength, are easily accessible from anywhere in the tub. Matching water closets and lavatories are available. Peerless, Evansville, Ind. Circle 343 on reader service card

















PRODUCTS: BATHROOMS

- 1. Traditionally styled cabinetry, "Wedgewood," combines beauty and durability. Molded of high-impact polystyrene, doors have an elegant raised panel design. Cabinets come in a choice of sizes to allow for a variety of arrangements. Triangle Pacific, Dallas, Tex. Circle 328 on reader service card
- 2. Whirlpool tub provides therapeutic and relaxing massages. Available in the corner model shown and in standard 5' and 6' tubs, units come in popular colors to match other fixtures. Packages include jets, pumps and all fittings. American Leisure, Ft. Lauderdale, Fla. Circle 329 on reader service card
- 3. Fiber glass tub surround, "Tub-wall," is an easy-to-install, three-

- panel system. The two side panels wrap around to form part of the back wall, eliminating troublesome corner joints. The only cutting required is for plumbing fittings and windows. Swan, St. Louis, Mo. Circle 330 on reader service card
- 4. "Plaza White" vanity cabinet features raised center panels and edge frames on the doors. Drawer and door fronts are pre-formed of high impact Durium. Moisture-proof units resist warping or chipping. Hardware is antique brass. Kitchen Kompact, Jeffersonville, Ind. Circle 331 on reader service card
- 5. Contemporary medicine cabinet, "Bel Aire," features a three-panel mirror for three-way viewing. Unit and complementary theatrical light-

- ing come in stainless steel or goldanodized aluminum. Cabinets can be recessed or surface-mounted. Monarch, Elk Grove Village, Ill. Circle 332 on reader service card
- 6. Solid-brass fittings for lavatories, baths and showers, "Anniversario," feature interchangeable decorative handles. Fittings come in polished or satin gold, polished or satin brass, chrome, satin nickel, pewter and old English finishes. Piazza Faucets, Buena Park, Calif. Circle 333 on reader service card
- 7. "Vanessa" vanity cabinet features an integral top and bowl of vitreous china. Cabinets with plastic laminate exteriors come in dark cherry or a white simulated woodgrain. Tops are offered in a full range of popular

- colors. Eljer, Wallace Murray, Pitts burgh, Pa. Circle 334 on reader serv ice card
- 8. "Omega" lavatory faucet is part of a full line of bathroom and kitche fittings. The 4" centerset features pop-up drain and a washerless ster and bonnet assembly. An aerator is also standard. Faucet is shown wit Coronet plastic handles. Stream way, Westlake, Ohio. Circle 335 or reader service card
- 9. "Coronation" vanity cabinet with pressure laminated finishe come in four color combinations in cluding the classic gold and whit shown. Cabinets have reinforce wood frames and hollow core doors Whyte Wood, Chanute, Kan. Circl 336 on reader service card

"Our customers expect to live here a long time. hat's one reason they expect KitchenAid dishwashers.

People are buying better, not cheaper. t's a sign of the times. So when customers ay \$75,000 to \$100,000 for one of my homes hey expect the best quality in their kitchen ppliances. That's what I give them."

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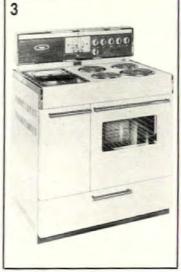


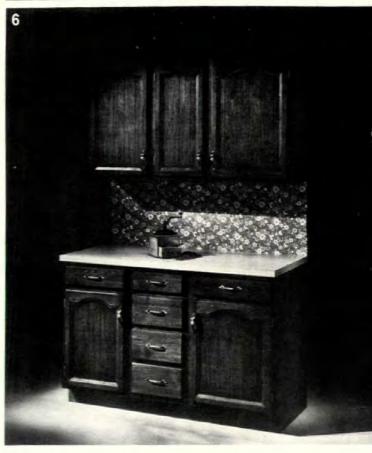












PRODUCTS: KITCHENS

- 1. Gas-fired built-in barbecue unit, "Hacienda Star," has gas burners, fire pan, ceramic briquettes, stainless steel smoke-flavor compartment and rotisserie. Heat is adjusted by raising and lowering fire pan or by gas-flame control. When unit is not in use, positive shut-off is provided. Easy-to-clean, grills fit in the dishwasher and slide-out drawer collects debris. A selection of venting systems is available. Goodwin, Berkeley, Calif. Circle 351 on reader service card
- 2. Built-in all-purpose appliance, "Foodmatic," includes a blender, juicer, knife or scissors sharpener and mixing bowls and beaters. Unit, which can be installed in any cabinet of adequate size, closes flush with countertop when not in use.

Latches hold each attachment firmly. Solid state control offers an infinite choice of speeds. Unit can be set for manual or automatic use. Optional attachments include a meat grinder. Ronson, Ronson, N.J. Circle 352 on reader service card

- 3. Dual-fuel electric range is ideal for vacation home use. Unit includes "stand-by" coal/wood or oil kitchen heater with two-burner cooking surface. Protection for woodwork and circulation of heat are provided by steel shield behind back flue. Continuous cleaning oven stays spatterfree at regular roasting temperatures. Combination heating range is also available in gas and "Duo-Oven" models. Monarch, Beaver Dam, Wis. Circle 353 on reader service card
- 4. "Smooth-top" electric range features easy-to-clean cooking surface of ceramic glass. Continuous cleaning oven is fully automatic. Fast preheat and adjustable broiling are provided. Surface units have infinite heat controls. Range has elegant black-glass oven door with stainless steel trim. Classic White, Antique Copper, Avocado Green and Harvest Yellow are available colors. Optional rotisserie kit is offered. Kelvinator, Grand Rapids, Mich. Circle 354 on reader service card
- 5. Top-of-the-line electric range has self-cleaning oven and one-piece smooth top. Special "Autolatch" control eliminates need for manual locking of oven door before self-cleaning process. Each cooking area is clearly marked on smooth top.

Unit also includes control conso with easy-to-read digital clock for automatic timing, infinite heat control, and black finish on oven doo Line also features models with continuous cleaning ovens. Tappat Mansfield, Ohio. Circle 355 of reader service card

6. Traditional cabinetry, "Patricia Pecan," complements almost an decor. Doors feature pecan-vene panels within solid frames. Pane are removable and a choice of decrator inserts can be used. Line has self-closing hinges and adjustable shelves in single-door wall cabinets. Base cabinets are 24" deep, 34½ high. Wall cabinets are 12" deep. Optional antique finished hardware offered. Home-Crest, Goshen Inc. Circle 356 on reader service card.

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Martin Free Standing fireplaces are low in cost, easily installed

Energy-conscious home-owners are finding Martin Free-Standing Fireplaces to be the ideal supplemental heat source for family rooms, add-on rooms, basements, vacation homes, and anywhere warmth and a touch of elegance are desired. Choose from wood-and-coal-burning, electric, and gas models in a variety of styles, including two new contemporary models.

Martin "Build·In·Anywhere" fireplaces have zero clearance for complete adaptability!

Because they are engineered for zero clearance, Martin "Build-In-Anywhere" fireplaces may be set directly on floor, sub-floor, or suitably constructed wooden platform. They require no masonry foundation and may be supported and surrounded with standard building materials. Each is a complete hearth-to-chimney-top system, offering unlimited trim possibilities and simplified multilevel installation.





Write for our catalog of affordable fireplaces now!



BUILDING PRODUCTS DIV. P.O. BOX 1527, HUNTSVILLE, ALA. 35807

Only York lets you tell the whole story

Hottest selling story in residential comfort-today





A powerhouse selling combination that builders can sell... and profit by!

York's Champion IV condensing unit is brand new and packed wit selling features. Like twin fans to reduce sound. Draw through air of sign to keep the compressor and motor cool, reducing nuisance triouts and extending equipment life. New compact size. Outstanding EER ratings. 8 new models. And much, much more.

Exclusive with York, our patente FlatTop evaporator coil, about has high as conventional "A" coils the FlatTop coil is ideal even for applications with high furnaces of low ceilings. It offers consumers tures no one—and we mean no on—else can match. To set you apa from the pack. 16 new FlatTop models to choose from.

If you're looking for exclusive, to quality products, order-closing se ing features, competitive pricing a lead-pulling programs, or if you're unhappy with your present suppliget the Whole Story. From York. Now!

ntroducing ome of York's more than 150 new models



York's new Versa-Pak . . . the most versatile unit ever offered by anyone!

JUDGE FOR YOURSELF! The Versa-Pak is an allelectric heating and cooling combination. used in conjunction with the Champion IV condensing unit. Our exclusive FlatTop coil design keeps the height to a

ew low! The cooling coil fits inside the nit. Here's the ideal product for homes, partments, town houses, etc. Versa-Pak nits are available in capacities from 1 to tons, heating from 3.5 to 35 KW.

HREE-IN-ONE!

Vhether your applicaon is upflow, horizontal reven counterflow, one ersa-Pak unit serves all ree needs. No modifiation from upflow to orizontal. Simply turn e unit on end and reerse the coil for countrflow. Takes just mintes. Seconds, maybe?



VERSA-PAK COUNTERFLOW UNIT

ull line of new vaporator blowers

eed an evaporator-blower for an appliation requiring cooling only. You've got Just like the Versa-Pak, these evaporaor blowers can be installed in upflow, ounterflow or horizontal systems. One roduct serves all three needs.

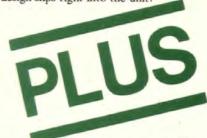


All new line of York electric furnaces

Is oil high priced in your market? Gas in short supply? You need an electric furnace. York

ORK ELECTRIC FURNACES

offers 30 new electric furnace models. They're compact, quiet, efficient, and versatile. For cooling, the York FlatTop coil design slips right into the unit.



Borg-Warner Climaster IV gas fired furnaces, new, quiet, efficient

A full line of all-new gas furnaces to be used with York air conditioning. The Borg-Warner Climaster IV line features wrap-around, one piece cabinet construction for solid, sound-dead-

ening strength, a "floating" heat exchanger to end that "snap, crackle and pop", plus other advances. 29 models from 40,000 to 200,000 Btuh. Also available, a line of Borg-Warner horizontal gas furnaces.



Borg-Warner oil fired furnaces. Complete line, decorator styled

The York line includes Borg-Warner oil fired furnaces in upflow, counterflow, lo-boy and horizontal styles. Use with York air conditioning, of course.

BORG-WARNER OIL-FIRED FURNACES

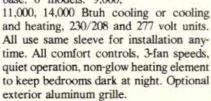
Ceiling evaporator blowers with optional electric heat

This unit is designed for apartment installations, above closets, in hallways or bath-

room areas. Horizontally installed, York uses twin blowers for quiet operation.

Compact, totalcomfort packaged terminal units

Install thru-the-wall or in curtain wall construction with optional subbase. 6 models. 9,000,



York also offers a full line of conventional room air conditioners from 5,000 to 35,000 Btuh.

Check these outstanding York products for a complete line

- ·Single package, air cooled, Sunline systems with gas heat. 24,000 to 60,000 Btuh
- · Electronic Air Cleaners, 200 CFM with two cells for easy cleaning.
- Evaporative-type Humidifiers with highly efficient double-pass evaporator pad.
- · Air cooled, single package Pathfinder II systems from 24,000 to 59,000 Btuh cooling with optional electric heat. These models easily adaptable for mobile home use.
- ·Water cooled, self-contained units in cooling only and heat pump versions. Unique closed water circuit application helps save energy. 19,000 to 43,000 Btuh
- ·Thermostats for heating and cooling

Get the whole story-Only from York

Visit us at Booth Please send literature on new products from York. Please have a representative call with the Whole Story. No. 2102 at the NAHB SHOW, Jan. 19-23, in Dallas! YORK DIVISION OF BORG-WARNER CORP. P.O. BOX 1592 YORK YORK, PA. 17405

CIRCLE 121 ON READER SERVICE CARD

HH175















PRODUCTS: KITCHENS

- 1. Complete kitchen-in-a-cabinet is a compact, self-contained unit ideal for small apartments or family rooms. Included are a refrigerator, a sink and a drop-in electric range with a three-burner cooktop and a bake/broil oven. Cabinet and countertop are constructed of high-pressure laminate wood available in a range of colors and textures. Easy-to-install and maintain unit comes ready to plumb-in and hook-up. Cervitor Kitchens, El Monte, Calif. Circle 344 on reader service card
- 2. Traditionally-styled cabinets, "Vintage Maple," add the warmth of wood to any kitchen. Cabinet doors have a raised panel design to contrast with flush fronts of the drawers. United Cabinet, Jasper, Ind. Circle 345 on reader service card
- 3. Top mount refrigerator/freezer features a "Custom dispenser" which delivers ice cubes and crushed ice through the freezer door. Dispenser holds up to 10 lbs of ice in a storage bin which refills automatically. Measuring 66" high and 30½" wide, the model "TBF-21RR" has 20.6 cu. ft. of no-frost refrigerator space and a 6.82 cu. ft. freezer. The fully fitted interior includes food storage bins and adjustable shelves. General Electric, Louisville, Ky. Circle 346 on reader service card
- 4. Built-in dishwasher features a special energy saving button that eliminates use of the heating element during the drying cycle. Instead, dishes are dried with fancirculated air. The seven-cycle ap-

- pliance has adjustable space-maker racks for easy, versatile loading. KitchenAid, Hobart, Troy, Ohio. Circle 347 on reader service card
- 5. A line of decorative range hoods for wall-mount, island, peninsula or pass-through installation includes a wide selection of styles, colors and accessories. Hoods feature a fire protective, built-in Magic Lung* exhaust blower with sufficient centrifugal pressure to liquify grease vapor and prevent flames from entering exhaust ducts. Hoods are also equipped with built-in fluorescent lighting and controls. Vent-a-Hood, Richardson, Tex. Circle 348 on reader service card
- 6. Single handle kitchen faucet with sleek contemporary lines is part of

- the "Tiara" series. Designed to complement a stainless steel sink, the faucet, featuring a deck-mounter brass escutcheon, has a 10" hi-arcast wing spout with a swivel aera tor for water flow in all directions Elkay, Broadview, Ill. Circle 349 of teader service card
- 7. Stackable washer and dryer ar especially well-suited to apartmen and condominium use where space is at a premium. The compact pair requires only 4 sq. ft. of floor space so it can be installed in corners of even in a closet. A folding lid on the washer eliminates the need to put the unit out from under the dryer folloading and unloading. Full-service units are easy-to-install and main tain. Sears Roebuck, Chicago, Ill Circle 350 on reader service card

Saving energy starts here.



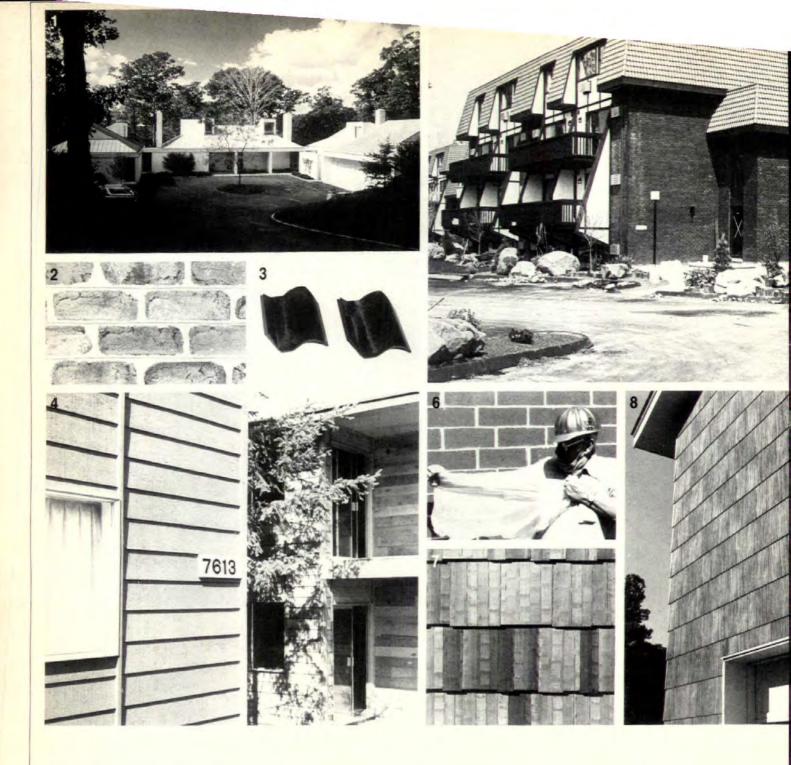
Gas appliances are efficient. They use less of our country's energy. You save even more by using gas wisely:

Lower thermostat, keep heating outlets clear. Change furnace filters as often as needed. Insulate adequately, use storm doors & windows.

Use gas wisely. It's clean energy for today and tomorrow.



Visit our Booth No. 2112 at the 31st Annual NAHB Exposition in Dallas, Jan. 19-23, 1975.



PRODUCTS: EXTERIORS

- 1. Terne-coated stainless steel roof is an interesting accent on a contemporary stucco house. The roof will weather naturally, in time, to an attractive, dark gray color. Corrosion-resistant roofing material is composed of nickel-chrome stainless steel covered on both sides with terne, a tin and lead alloy. Follans-bee Steel, Follansbee, W.Va. Circle 357 on reader service card
- 2. Genuine fired-clay face brick, "1776," is available in several color ranges. Manufactured in both standard 3%"x2½"x8" size and a larger 3%"x2¾"x8" size, the authentic looking colonial style brick has been developed through careful research and laboratory testing. Glen-Gery, Reading, Pa. Circle 358 on reader service card
- 3. Roof tiles in a rich Cordova brown are a striking contrast to the traditional white-wash exteriors of Spanish style houses. The color is available in the Spanish mission tile shown and on a full line of roof tile patterns. The smooth glaze with a ripple finish effect provides a warm, mottled look. Ludowici-Celadon, Chicago, Ill. Circle 359 on reader service card
- 4. Rough sawn plywood lap siding is "Penta-treated" so that it is stiff and stable. Produced in manageable 16' lengths, the siding is lightweight and easy to install. The select Douglas Fir surface can be prefinished or coated with opaque stains and acrylic latex paints and stains. Pope & Talbot, Portland, Ore. Circle 360 on reader service card
- 5. "Modulex" roofing panels in a "Mission Tile" design simulate the look of old Spanish clay tiles. The lightweight panels, measuring 49"x20½", consist of 16 tiles each with a flange around the perimeter for easy installation on a conventional roof structure. Modular Fixtures, Irvine, Calif. Circle 361 on reader service card
- 6. High-density polyethylene film is suitable for a wide range of construction applications including roofing and waterproofing membranes. The clear, cross-laminated material, "PS-30," can substitute in many instances for low-density films. It comes in 100' rolls in 4', 8', 12', 16', 20' and 24' widths. Raven, Minneapolis, Minn. Circle 362 on reader service card
- 7. Hand-hewn 8' shingle pane create a rustic effect on sidewal and mansards. Natural light ard dark Western red cedar shingles at electronically bonded into panel Horizontal butt lines are formed by the three layers of shingles. Easy-trinstall panels come in a choice of stains with matching accessorie Shakertown, Winlock, Wash. Circ. 363 on reader service card
- 8. Deep vertical woodgrained sidir is available in a straight-edged "Codatones" style or the thatched-edge "Cedatex" version. Fireproof material is impervious to shrinkage, wa page, decay and termites. It comes i "Supra-acrylic" finish available in choice of 12 colors. Suprador, New York City. Circle 364 on reader service card

Honeywell

Control News

NEWS, SERVICES AND TIPS FOR ENGINEERS AND CONTRACTORS

HOMES SELL EASIER WHEN THEY'RE CLEAN AIR HOMES

What Are Clean Air Homes? They're The Ones That Sell Faster Because They Offer Buyers Clean, Quality Living With Honeywell's Electronic Air Cleaner!

These days, you need all the help you can get selling homes. And you get that kind of help by offering your homes with Honeywell's Electronic Air Cleaner - The Clean Air Machine as a standard appliance.

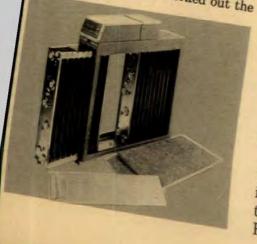
In modern deluxe and mid-price homes, homebuilders, real estate agents and architects have discovered electronic air cleaners to be a promotable, tangible competitive difference when they're sold as standard features. So saleability and profitability - of the homes go up. (And, the cost is low, compared to the cost of mortgage money for unsold homes.)

Clean Air For Total Living

"We put them in as standard equipment," says Jerry Powers, President of Powers Bros. Real Estate, Evansville, Ind.

"In developing the Rivergate Communities," Powers says, "one concept we wanted to merchandise was 'total living,' inside and out.

My heating and cooling contractors, Honeywell and I worked out the





program designed to create traffic ... to make people aware of the total living concept," Powers continued.

Part Of The Selling Is Already Done

Selling is easier when customers recognize brand names in your homes. And they're sure to recognize the name Honeywell, makers of the Round and Chronotherm Clock Thermostats.

So what is this to you? Just this; with the Honeywell Electronic Air Cleaner in your homes, a big part of the selling job is done for you.

"We've specified Honeywell because of the name," says a California heating and cooling contractor.

"The Honeywell name on an appliance like the Electronic Air Cleaner tells prospective homeowners exactly how this developer feels about quality -- not only in workmanship -but also in the quality of living anticipated in this condominium development.

"A developer came to us for additional ways he could sell condominiums faster," the contractor continued. "We recommended that a Honeywell Electronic Air Cleaner be

featured as a standard appliance just like the dishwasher, air conditioning and other extra-value comfort

EACB

They're Reliable, Too!

"We've installed electronic air cleaners for many years in new and existing residential work," says an Ohio heating and air conditioning contractor. "With the Honeywell Electronic Air Cleaner, we've had not one failure since installation." that's the way it should be, he says.

"Builders are in the business of selling homes - not servicing complaints."

How Well Does It Work?

Honeywell's F50 family of electronic air cleaners removes up to 95% of all dust, smoke and pollen passing through them. So the home environment has less airborne dirt, and walls, drapes and furniture stay cleaner

Give your homes a tangible, promotable competitive point of difference at minor cost. See your authorized Honeywell representative today about the Clean Air Machine. Or write Honeywell Inquiries, G2118, Honeywell Plaza, Minneapolis, Minnesota, 55408.

APA Single Wall

Plywood siding direct to studs.

Can your wall pass the Plywood Scrooge Test?

Six builders talk about cutting costs with APA Single Wall.



"We studied systems for two years before we decided on APA Single Wall with studs spaced 24 inches o.c. Saves time.

Saves material. And the heat and energy loss rating is very good." Burton Eaton, Beaton Builders, Inc., Hartsdale, New York.



Omaha, Nebraska.

"Speed and cost is the big advantage. APA Single Wall fits right into our panelized operation. We prefab the walls in

our yard. And compared to stucco, which is big in this area, Single Wall is a lot cleaner and faster." Bob Campbell, Sun Home Builders, Inc., Las Vegas, Nevada.



"To me, APA Single Wall means great insulation and minimum utility bills. Also, we use Texture 1-11 on the interior.

Brings the outside in." Jim Gilmore, Coronado Builders Corp., Franklin, Tennessee.



"Erection time is less. Maintenance is minimum. The appearance is great. I'd recommend Single Wall to anyone."

Gene Schnippel, Schnippel Construction, Inc., Botkins, Ohio.



"I like to use plywood with a resawn finish. Single Wall is the best of both worlds, speed of erection and great looks."

Wilburn Wallace, Janis Construction Corp., Sausalito, California.

Can your walls pass the Scrooge Test?

My walls are a single layer of rack-resistant plywood siding nailed right on the studs.

☐ My	wa	lls	cut	costs	30-40%
compared	l to	do	uble	wall	construc-
tion.					

- ☐ My walls cut *more* than 30-40% because the framing is spaced 24 inches o.c.
- ☐ My walls are super energy savers because I use insulation that completely fills the stud space.

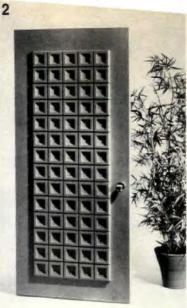
If you flunked this test, don't waste any more time. Send the coupon for a good book on APA Single Wall.

Free.

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Stop by our booth 2238 at the NAHB Show and learn more about APA Cost Saving Systems.







PRODUCTS: DOORS/WINDOWS

 "Cellwood" bi-fold doors molded of structural foam simulate the look of natural wood grain. Available prefinished in white or ready to stain, the open-louver doors have reinforced, one-piece top frames that require no bottom track. Stress-free, dimensionally stable doors won't warp, chip, rot or rust. Allastics, Norcross, Ga. Circle 394 on reader service card

2. Decorative entry door systems carry a Class-B fire rating. The standard doors, frames and hinges all withstood the rigorous 1½-hour ASTM Fire Endurance and Hose Stream tests. All models, including

2'6", 2'8" and 3' sizes—except those with doorlites—are certified to carry the Class B label. Pease, Ever-Strait, Fairfield, Ohio. Circle 395 on reader service card

3. Built-to-order windows in triangular and trapezoidal shapes provide unlimited design versatility. Avail-

able with 1" insulating glass glaze directly to 5/4 frames, units are rigand clear. Manufacturer can supplithese windows from certain roug opening dimensions. Windows up to 35 sq. ft. have a standard pricing formula. Marvin Windows, Warroas Mich. Circle 398 on reader service and

MORE PRODUCTS ON PAGE

More Working Capital... Extra Profits... For Builders Through Section 8

The New Leased Housing Program!

The National Housing Partnership can provide builders/developers more working capital and extra profit in the construction or rehabilitation of low and moderate income housing. And now the new Leased Housing Program, Section 8, offers additional opportunities for you to benefit by working in partnership with NHP.

ing in partnership with NHP.

Section 8 is, in effect, the only housing subsidy effort now advanced by the federal government. It establishes a program of privately constructed, privately financed housing with up to 100% of the units receiving Housing Assistance Payments to reduce the rent paid by tenants to 15-20% of income.

As partners of local builders in construction or major rehabilitation under the new Section 8 program, NHP can:

- Provide financial strength and staying power, enhancing proposals to housing authorities.
- Provide seed money for land options and architectural work.

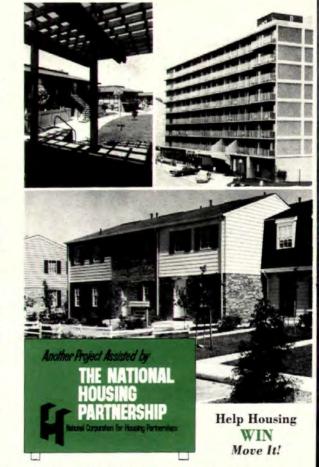
- Provide for long-term project operations.
- Provide for technical assistance in submitting proposals.
- 5: Provide for long-term management.

NHP can assume full ownership and control at project completion, relieving builders/developers of all management and operating responsibilities under the new program.

Sales Housing-Joint Ventures

In addition to participating in multifamily rental projects, NHP will invest in moderate income "for sale" housing and joint venture with qualified builders, using federal and state subsidized interest financing.

NHP has committed over \$34 million to participate as money partners with local builders/developers in 145 low and moderate income projects in 33 states costing over \$433 million. Our sign identifies these projects.



Check the advantages of partnership with NHP . . . visit Booth 1506, NAHB, Dallas. Or write or call for our Leased Housing Program summary.



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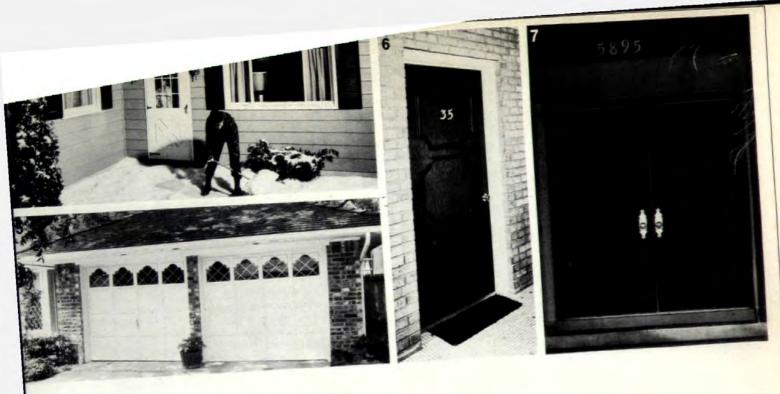
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PRODUCTS: DOORS/WINDOWS

constructed of one-piece aluminum with a 1½" thick foam insulation separating the interior and exterior surfaces. Door features a woodrain design, black hammered hinge traps and a deep cross-buck pattern. Alcan Aluminum, Warren, Ohio. Circle 396 on reader service card

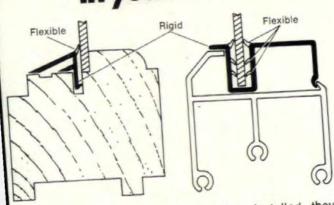
5. Garage door with four sections and four panels is offered with a selection of trims to complement any style architecture. "Monaco," a Mediterranean-inspired design, is shown with scalloped windows. Counterbalanced doors are weathertight. Overhead Door, Dallas, Tex. Circle 397 on reader service card

6. Woodgrained steel door with a handsome, raised panel design is a practical addition to any style entry. The door combines the all-weather insulating qualities of the "Perma-Door" system with the rich look of an "American Walnut" finish. Steelcraft, Cincinnati, Ohio. Circle 399 on reader service card

7. Metal-clad thermal door, "Sta-Tru" features a foamed-in-place polyurethane core and kiln-dried edges that act as a thermal barrier. Doors have refrigerator-type magnetic and compression vinyl seals and a self-adjusting weatherstripping. Stanley, Birmingham, Mich. Circle 449 on reader service card

MORE PRODUCTS ON PAGE 135

When you don't want a permanent pane in your sash.



Try plastic profile glazing strips. When installed, they provide a leakproof and maintenance-free interface between glass and sash. Yet they're easy to remove when a window pane has to be replaced. We offer four basic designs: U-channel, drop-in spline, snap-in, and removable double glazing. All are custom-designed to fit any wood or metal window.

wood or metal window.

For more information on plastic profile window glazing strips, write Crane Plastics, 2141

Fairwood Ave., Columbus, Ohio 43216.

Or call (614) 443-4891.

(ranePlastics



















RODUCTS: TOOLS/EQUIPMENT

Versatile pneumatic nailer is pable of driving 12 different nails m 2" to 31/2" long with smooth, g or screw shanks. The rugged N-IV" can be used for fastening ming, sub-flooring, sidewall eathing and roof decks. The heavy ty tool with a 30° tilt magazine is sy to maneuver into hard to reach eas. A choice of safety touch-trip trigger driving is offered. Unit is one-hand operation. Senco, Cinnati, Ohio. Circle 428 on reader vice card

Laminate trimmer is a compact, htweight 3/4 hp tool that provides gh-level output without causing erator fatigue. Weighing only 3 lbs d measuring just 6" high, the unit s a 3" outside diameter at the hand p area. It has 1/4" chuck capacity and precise spiral depth control with 1/12" markings. A compact edge-guide assembly coupled with a chrome plated pilot guide insures accuracy and cuts down spoilage. Stanley, New Britain, Conn. Circle 429 on reader service card

3. Articulated 4-wheel drive loader features load-sensing hydraulic controls that monitor demands for traction, breakout, bucket lift and steering, sending extra power when needed. Vehicle, with a short turning radius and wet disc power brakes, has roll-over and falling object protectors as standard equipment. ROPS cab with heater and air conditioner is an optional accessory. A full line of attachments is available. Ford Tractor, Troy, Mich. Circle 430 on reader service card

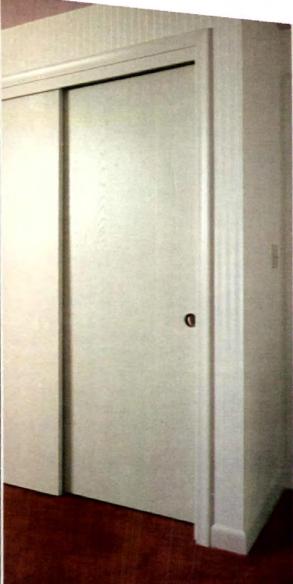
4. Rough terrain lift trucks have a compact design that allows for a tight turning radius. Offered in two models for 4000 lb and 5000 lb loads, vehicles have gas, LPG or diesel powered four cylinder engines. Standard upright has a maximum lifting height of 168". A four-stage upright lifts up to 240". Hyster, Portland, Ore. Circle 431 on reader service card

5. WhammerTM 2001 nail gun drives 11/32" 18 gauge nails with a single stroke. Suitable for installing paneling and wallboard, the tool countersinks nails to eliminate setting and filling. Lever-operated unit features a lock and a safety guard to prevent accidental firing. Swingline, Long Island City, N.Y. Circle 432 on reader service card

6. Heavy duty drill-bit sharpener returns worn or dulled twist drills to original condition in about one minute. The easy to set up and operate sharpening tool has built-in geometry and accuracy controls. A 3-jaw indexable chuck accepts straight shank drills from 1/8" to 1/2". Black & Decker, Towson, Md. Circle 433 on reader service card

7. Pocket measuring tool, "Roto-Mate," converts lineal scale measurements on blueprints to actual footage required. Eight different scales, including the latest additions 3/16", 3/8", and 3/4", are available. The new scales also can be ordered for use with existing tools. Scales are color coded for easy identification. Estimate, Philadelphia, Pa. Circle 434 on reader service card









Ask Bill Myers, Builder: Motels Phoenix, Ariz.

Ramada Inns changed door specifications on most new construction as soon as we saw and tried the new Legacy doorskin by Masonite Corporation.



Ask Bill Logan, Builder: Luxury Homes Canton, Mass.

The three dimensional finish and beautiful woodgraining alone would be enough to sell me on the door. But on top of that, they take an unbelievable amount of abuse.



Ask
David Hoffman,
Builder:
Condominiums
Northbrook, III.

After two months research, testing, and comparison, we knew as much about doors as most door salesmen. We also knew our customers couldn't purchase a better door.

Legacy stands alone.

Alone in beauty, durability, and repairability. Embossed prefinished Legacy is available in white, oak-tone and walnut-tone for home, condominium, apartment, and commercial installations.

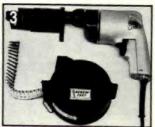
For the names of quality door manufacturers currently using Legacy, write: Masonite Corporation, Department DES, 29 North Wacker Drive, Chicago, Illinois 60606.

Legacy and Masonite are trademarks of Masonite Corporation. / Man-made finishes on real Masonite hardboard.







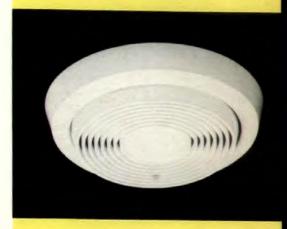




PRODUCTS: TOOLS/EQUIPMENT

- 1. Loader/tractor, "646," can be used for digging, loading, grading or carrying materials in a 6.2 cu. ft. bucket. Lift capacity is 600 lbs. Powered by a 16.5 hp engine, "646" can handle a 48" mower. Three-point hitch allows for use of a variety of attachments including grader, blade and rake. J.I. Case, Racine, Wisc. Circle 420 on reader service card
- 2. Two leveling devices are designed to speed siting. Both the transit-level and conventional level are easy to align using a two-screw system. Transit-level features locking device for positive repositioning and a quick-sighting V-groove. Instruments include built-in telescope sleeves to protect adjusting screws. Keuffel & Esser, Morristown, N.J. Circle 421 on reader service card
- 3. "Screw-fast" electric screwdriver eliminates wasted screws and one-by-one loading process. Assembled in plastic belts, screws are automatically fed into position. One-hand operated unit is powered by 3500 rpm screwgun. Tool uses no. 6 bugle-head screws, appropriate for attaching gypsum drywall to metal studs. Duo-Fast, Franklin Park, Ill. Circle 422 on reader service card
- 4. Crawler-loader, "JD555," features full power-shift transmission with torque converter. Three gears forward and back for high speed operation in either direction are provided. A 1¼ yd. bucket, single-level loader control, and sealed track chains, rollers and idlers are standard. Deere & Co., Moline, Ill. Circle 423 on reader service card

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Ours gives the earliest possible fire warning, because it's an ionization unit capable of detecting air-borne combustion particles you can't even see! The unit (the SS749ACS) can detect in all four stages of fire, even the very earliest (incipient) stage before there's any appreciable smoke, flame or heat. Self-monitoring, it has a special solid-state indicator lamp that not only tells you the power's on, but that all circuits are working and the sensitivity is correct. UL listed*, the lowcost SS749ACS has solid-state circuitry, loud insistent alarm horn and operates on 120 V AC. It's easy to install. Mounts to a 4" outlet box. For details contact BRK Electronics Div. of Pittway Corp.,

525 Rathbone Ave., Aurora, III. 60538. (312) 892-8721. BRK ELECTRONICS First in Fire Warning

*Also BOCA & ICBO Research Committee listed

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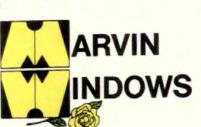
CIRCLE 137 ON READER SERVICE

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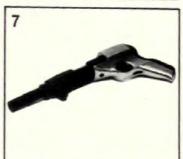


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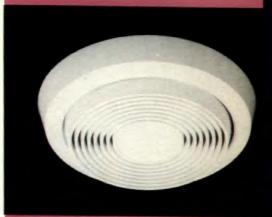




PRODUCTS: TOOLS/EQUIPMENT

- 5. Rubber-tired trencher, "Fleetline 12+4," features full-time Hydra-Static drive, coupled transaxles and hydraulic articulation. Twelve-anda-half hp unit trenches from 4" wide, 45" deep to 12" wide, 26" deep at infinitely variable speeds to 900 fph. Davis, Wichita, Kans. Circle 424 on reader service card
- 6. Lawn and garden tractor, "Model 720," is easy to service. All engine parts are exposed and conveniently located. Hydrostatic drive system makes it possible to match engine rpms, horsepower needs and ground speed to any job. Front and rear PTOs and 3-point hitch are standard for such implements as mower, snow blower and towing hitch. Allis-Chalmers, Milwaukee, Wisc. Circle 425 on reader service card
- 7. Low-velocity fastener is a powder actuated tool with a padded recoil absorbing handle. Model uses .22 caliber cartridges, driving fasteners at rate of up to 6 per min. Carrying case, safety goggles, operating manual and maintenance tools are included. Bostitch, E. Greenwich, R.I. Circle 426 on reader service card
- 8. Routers in two sizes feature double angle collet chuck maximizing bit grip. "Model 5620" delivers eight amps on 1 hp. "Model 5660" delivers ten amps on 1½ hp. Handsized textured handles provide comfort and no-slip gripping. A line of accessories and router bits in highspeed steel, carbide-tipped and solid carbide steel is available. Milwaukee, Brookfield, Wisc. Circle 427 on reader service card

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No other type of device warns earlier than our SS74R SmokeAlert. This is an ionization unit. It'll detect in all four stages of fire, even the very earliest (incipient) stage before there's any appreciable smoke, flame or heat. SmokeAlert is UL listed*. Has more battery power than comparable units. Gives a loud, intermittent signal when battery replacement is needed. No periodic manual readjustments are necessary to compensate for declining battery life. A built-in voltage regulator maintains the unit's factory preset sensitivity at all times. Attractively styled, the unit has solid-state circuitry, loud alarm horn, one-year warranty. For details contact BRK Electronics Div. of

Pittway Corp., 525 Rathbone Ave., Aurora, III. 60538. (312) 892-8721.

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PRODUCTS: FIREPLACES

- 1. Cone-shaped fireplace on curved base, "Lancer," is an attractive contemporary accent. Freestanding, fireplace is 30" in diameter and must be installed 12" from combustible walls. Cone is offered in matte black finish or choice of ten porcelain tones. Colored pipe is available at an extra charge. Line also includes a corner unit, "Fire Jester," a ceiling-suspended model, "Fire Duchess," and "Gas Baroness," with a pilot control. Malm, Santa Rosa, Calif. Circle 365 on reader service card
- 2. Built-in woodburning fireplace is easy to install. Self-contained unit has ceramic back and base, porcelainized sidewalls and black-enamel fascia trim. Low profile permits chimney offset and return to vertical beneath standard 8' ceiling. All
- chimney sections are pre-assembled. Stone, wood, brick or simulated material may be used as facing, making unit suitable for any decor. Left and right knockouts are provided for gas or electric log hookup. Unit comes in 28", 36" and 42" sizes. Dyna, Lynwood, Calif. Circle 366 on reader service card
- 3. Contemporary Franklin fireplace can be used as a supplemental heat source for a den, recreation room or country cabin. A wide range of fuel may be utilized—coal, wood, or charcoal. Unit is also suitable for gas logs. Double-wall construction is featured on back, bottom and top. Front opening is 26" wide. A free-standing model is also available. U.S. Stove, South Pittsburg, Tenn. Circle 367 on reader service card

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Master Control Panel in the lobby and our ionization units deployed throughout the building, every occupant can count on the earliest possible warning of fire. The MCP741 Panel has modular, solid-state design and can control detection equipment in hundreds of apartments. When fire occurs, an alarm sounds inside the apartment, an indicator light comes on over the door, and the Master Control Panel alarms both visually and audibly. This advanced system can be zoned by floor, so fire fighters can quickly locate fires. It is UL listed*, has battery backup for 24-hour operation during power outages, and is easily installed because of its simplified 2-wire design. For details, contact BRK Electronics Div. of

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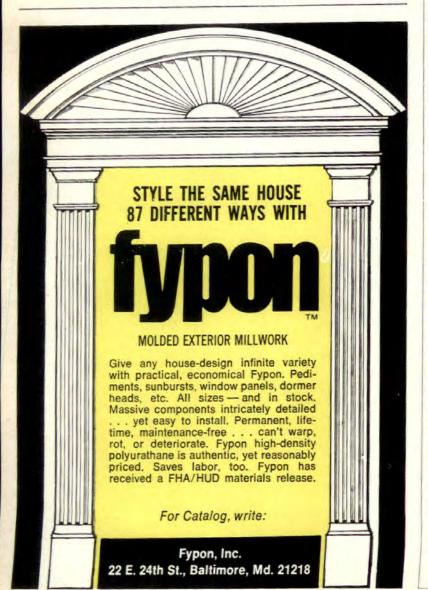
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PRODUCTS: FIREPLACES

- 4. "Century III" freestanding fireplace complements a contemporary interior. Fireplace burns coal, charcoal or wood and can be converted to accommodate gas logs. High-fired porcelain finish is heat-resistant. Model includes screen, black porcelain hearth, decorative wrought iron grate and enough pipe to reach an 8' ceiling. Six decorator colors are offered. Roesch, Belleville, Ill. Circle 368 on reader service card
- 5. Electric fireplace provides warmth and glow without ashes or chimney. Separate controls provide simulated flame or 1500 watts of heat or both at the same time. Vinylsheathed metal hood and firebox has brass accents. Unit comes fully assembled. Arvin, Columbus, Ind. Circle 369 on reader service card
- 6. Freestanding fireplace, "Wi wam," is constructed of 12-gau, steel. Circular unit with 180° viewing area is available in 30" and 3 diameters and must be installed I from walls. Other styles offered i clude the center-of-the-room "Ch let" and the rustic "Cottage." Emb Box, Oklahoma City, Okla. Circu 370 on reader service card
- 7. Pre-built fireplace, "George Was ington," features an antique whi wood mantel, cut quarry stone d sign, burnt firestone finish on the lining and a raised hearth. Unit constructed of cast masonry and polyurethane. Gas or electric lomay be used. "Martha Washington (not shown) has a fruitwood mantel Readybuilt, Baltimore, Md. Circ 371 on reader service card

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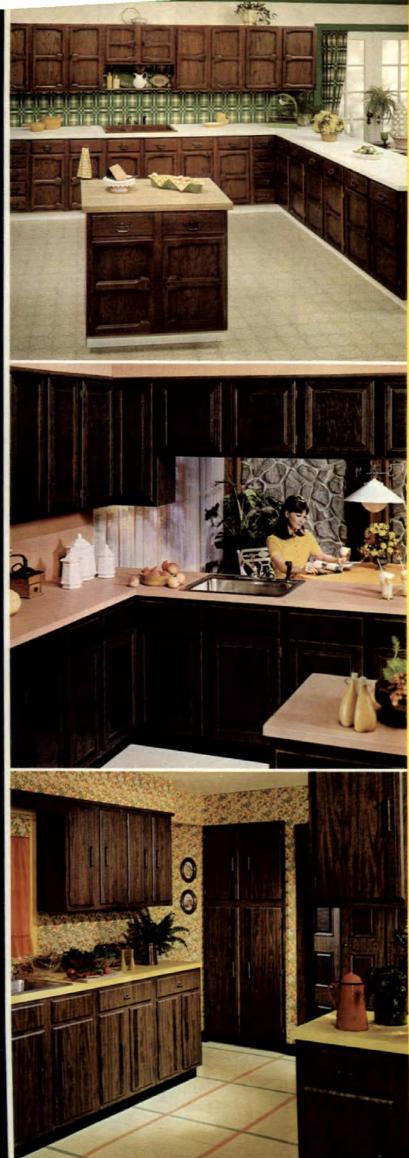
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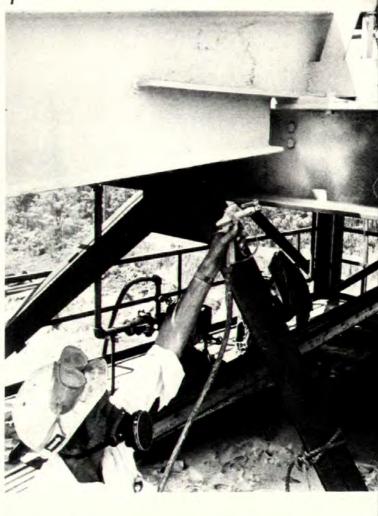












PRODUCTS: COATINGS/ADHESIVES

- 1. Cement floor stain is an oil-base flat finish that penetrates and protects hard, porous, cement surfaces. Offered in eight colors plus black or white, the easy-to-apply substance leaves a durable surface that will not peel, crack or scale and is highly resistant to moisture and abrasion. Stain comes in quart, gallon or 5-gal. pails. Samuel Cabot, Boston, Mass. Circle 379 on reader service card
- 2. Non-metallic construction grout, "Sealtight V-3," is a premixed, high-density, high-compressive strength substance. It expands approximately 0.5% during the first eight hours after placement, then becomes stable. The permanent grout needs no capping or moisture protection. Meadows, Elgin, Ill. Circle 380 on reader service card
- 3. "Overcoat" acrylic latex finish is specially formulated for application on new hardboard and on previously painted surfaces. Available in a wide range of 22 stain-matched colors, the substance is easily applied using a variety of methods. It is guaranteed for durability. Olympic Stain, Seattle, Wash. Circle 381 on reader service card
- 4. Poxymix* line of coatings consists of three protective substances. All purpose vinyl concrete-repair mix can be used for interior or exterior applications. Vinyl dry paint is a guaranteed waterproofing for masonry or concrete. Water stop contains an hydraulic cement formulation that prevents future seepage. Paint Master, New York City. Circle 382 on reader service card
- 5. Stain and wood preservative, Cuprinol®, provides maximum protection for all exterior wood surfaces. It will not crack, chip, blister or peel and is water repellent and mildew and fungi resistant. Nonfading coating is available in 20 colors in two stain types: The semi-transparent stains accent and enrich wood grain and texture; solid color stains hide the graining and highlight the texture. Both are easy to apply. Darworth, Avon, Conn. Circle 383 on reader service card
- 6. White acrylic caulk is now available in a 6 oz. space-saver applicator tube. The caulking, containing no toxic fumes, is nonflammable. It is a waterproof, flexible, non-staining substance suitable for exterior as well as interior application. It can be
- sanded and painted as desired. Caulk can be used to fill cracks around plumbing fixtures, moldings and trim, windows and doors or for minor patching. Miracle Adhesives, Bellemore, N.Y. Circle 384 or reader service card
- 7. "Glid-Guard" double-build viny is a high-solids vinyl copolymer coating for interior and exterior metal surfaces. Used with the proper primer, "Glid-Guard" provides long range vinyl protection for structural steel. Recommended for large surface areas, the low sheen film is resistant to weather, abrasion and chemical fumes. Suitable for air or airless spray, the tintable coating dries in about 30 minutes. Glidden Cleveland, Ohio. Circle 385 or reader service card

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PRODUCTS: PLUMBING/PIPING

- 1. Hot water pumps, constructed of corrosion-resistant bronze, are designed for use where sudden demands are made on the hot water supply. Electrically regulated pumps are leakproof. Sealed Motor, Bridgwater, England. Circle 415 on reader service card
- 2. "Project" bath fittings feature integral shut-off valves. The three-valve unit shown has easy grip "Flite-Sweep" handles. One-piece bonnet, stem and o-ring assembly is removable for easy servicing. Royal Brass, Cleveland, Ohio. Circle 416 on reader service card
- 3. Pressure booster pump can be used to boost water pressure for special needs or to maintain regular pressure when it drops. The ½ hp

- unit runs at pressures to 140 PSI. Flint & Walling, Kendallville, Ind. Circle 417 on reader service card
- 4. Submersible pumps capable of handling solids up to 2½" in diameter are designed for heavy-duty sewage use. Units, with a 22,200 gallon per hour capacity, feature optional dual seals on the three-phase models. Kenco Pump, Lorain, Ohio. Circle 418 on reader service card
- 5. Supply and drain fixture, "Laundry Mate," is a decorative cover for machine plumbing that provides cold, mix and off stops at the water source. Unit allows for all hoses to be centrally located and accessible. Symmons Industries, Braintree, Mass. Circle 419 on reader service card



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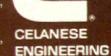
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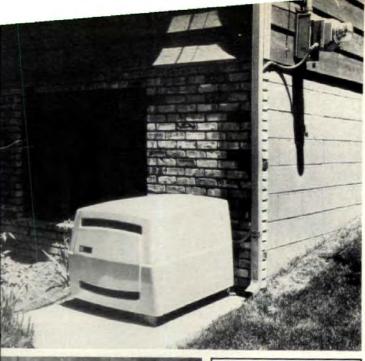
The lavatory pictured is called Cameo. By Middlefield Corporation, Middlefield, Ohio. In Celcon, the material that makes it a very good buy.

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RESINS



















RODUCTS: ELECTRICAL

Auxiliary electric generator sysn provides emergency power. The f-contained unit consists of a 00 watt engine-driven electric nerator set and a load transfer itch. When regular power cuts off, generator produces standard 0, 240 or 120/240 v. electricity. It designed for outdoor installation. an, Minneapolis, Minn. Circle 6 on reader service card

Built-in entertainment system ludes an intercom, music sets an optional door chime. Offered th 2 or 8 note chimes, door signal be heard from anywhere in the use and answered at any speaker. imes have integrated circuit trantors so there are no hanging tubes. asic & Sound, Dallas, Tex. Circle 7 on reader service card

3. "Qwik-Gard" receptacles with ground fault interrupters come in standard and feed-through models. Available in 15 and 20 amp ratings, receptacles can be installed in new or existing electrical systems. ULlisted devices are offered in white, beige, brown or ivory finishes. Square-D, Lexington, Ky. Circle 388 on reader service card

4. Ground fault interrupter protects against shocks caused by electrical current leakage. Designed to fit in a standard electric box for 125v, 15 or 20 amp circuits, device senses a difference in current entering and leaving an appliance. If current changes to a hazardous level the GFI breaks the circuit. Unit is designed for easy installation. 3M, St. Paul, Minn. Circle 389 on reader service card

5. Ground fault circuit interrupter is a match-box size electronic control package that fits in the circuit breaker panel. Device reacts in less than 1/50th of a second to a change in current level and cuts off power before injuries can occur. GFIs are required for all outlets servicing swimming pools. Cutler-Hammer, Milwaukee, Wisc. Circle 390 on reader service card

6. Vinyl surface electrical raceway provides economical circuitry and doubles as baseboard trim. Easy-toinstall "Johnsonite" raceway consists of base strips, cover strips, end caps, corner pieces and outlets. It will not support combustion and will not dent or mar. Johnson Rubber, Middlefield, Ohio. Circle 391 on reader service card

7. Tamperproof lock switch, Spec-Master™ prevents any authorized operation. Hair pins, paper clips or similar objects cannot turn it. Lock switch, available in single and double pole, 3- and 4-way models in 15 and 20 amp ratings, meets Federal and UL specifications. Leviton, Little Neck, N.Y. Circle 392 on reader service card

8. High security AC switch is equipped with a Corbin lock tumbler mechanism that eliminates the possibility of by-passing the lock and making contact with live internal electrical parts. The Corbin lock switch is available in 15 and 20 amp ratings, 120 to 277 volts, single or double pole, and three way. Arrow-Hart, Hartford, Conn. Circle 393 on reader service card

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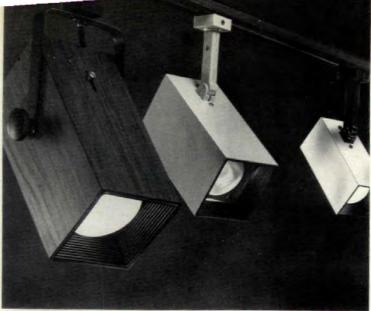
PRODUCTS: LIGHTING

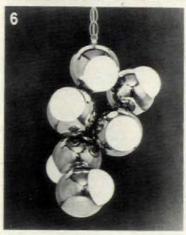
1. "Micro-mini" track lights for the StarTrack three circuit system are small scale and simple in design. The series consists of three swivel-mount units; a satin aluminum cylinder which can be used with a variety of lamps, a step cylinder finished in black and satin aluminum and a no-glare reflector light. Swivelier, Nanuet, N.Y. Circle 442 on reader service card

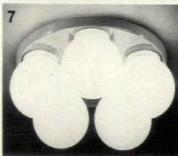
2. Post-mounted outdoor fixture, "New Orleans," utilizes a mercury vapor lamp. Part of the "Americana" series, the cast aluminum unit has a hinged roof for easy maintenance. High-impact resistant acrylic lenses are featured. Photocells are lightning and weather-proof. Hadco, Littlestown, Pa. Circle 443 on reader service card

3. Commercial track lighting sytem, "Styline," permits instaplacement of fixtures anywher along its length. UL-listed system specifically designed for ceiling is stallation, also can be surfact mounted. Available in 1 and 2 court models, with each circuit rat 20 amps at 120v, system is compable with a range of lighting fixture I-T-E Imperial, Spring House, In Circle 444 on reader service card

4. Bold, contemporary chandelier a striking square chrome and bla fixture. The four-light unit, available with or without a downlight can be chain hung, as shown, or ceing mounted. Six and eight light visions are also available. Corbot Lighting, Dallas, Texas. Circle 4 on reader service card









- 5. Angular square lampholders designed for the "PowerTrac" system come in three sizes. Available in satin white, polished aluminum with black trim or teakwood with black trim, holders can be used with 4-circuit, miniature, raceway and recessed track. Lights attach at any point along the track. For catalog send \$1.00 to Halo Lighting, 400 Busse Rd., Elk Grove Village, Ill.
- 6. Contemporary cluster fixture, "The Eyeball," adds an interesting lighting dimension to a hall or entryway. Available as a hanging lamp or a wall-mounted piece, the fixture consists of six polished chrome eyeballs grouped together. Lamp is 10" high, with a 10" diameter. Auralume, Lightron, Huntington, N.Y. Circle 446 on reader service card
- 7. Ceiling mounted cluster light consists of five white opal balls set on a wet-look disc. Light incorporates a lock-up system with no screws and threaded mounts for easy maintenance and relamping. Fixture, which uses five 60w bulbs in the 6" globes, is 17" wide and hangs 7" from the ceiling. EJS Lighting, Compton, Calif. Circle 447 on reader service card
- 8. Modern lamp "Dangles" features oversized brass balls that control the on/off switch. Fixture, in table and floor models, has a polished chrome base and column and a pleated beige linen shade. The same lamp is available in matte textured brown with a suede finish brown shade. George Kovacs, New York City. Circle 448 on reader service card



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PRODUCTS: INTERIORS

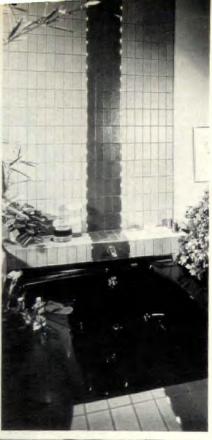
1. Prefinished plywood paneling, "Woodcut," adds color, pattern and texture to any room. Simulated woodgrain surface has embossed design reminiscent of woodcuts from a pine. Each 4'x8' panel has protective finish to guard against bumps and spills. Six colortones are offered. Georgia-Pacific, Portland, Ore. Circle 435 on reader service card

2. Vinyl veneer paneling, "Brazilian Rosewood," has woodgrain design. Easy-to-maintain panels are scratchand stain-resistant and may be cleaned with a damp sponge. Pattern is reverse-printed on underside of protective vinyl, which is laminated to dense, smooth-surfaced particleboard. Panel size is 4'x8'. Permaneer, Maryland Heights, Mo. Circle 436 on reader service card

3. "Silentex" 2'x2' ceiling panels ar combined with a grid installatio system. "Grid Kit" contains meta main tees, cross tees, wall molding hanger clips and instructions. One grid is in position, 5/8" thick panel with 3/8" recessed edge are easil dropped into place. Panels have brushed textured surface and 3/16" r veal edge, giving three-dimension; effect. Gold Bond, Buffalo, N. Circle 437 on reader service card

4. Polyester brick reproduction "Used Brick," give cozy look to kitchen. Non-porous wall decora tion won't absorb dirt and may h cleaned with a damp cloth. Brick are same length, width and textur as the real item yet weigh only 4 or Dacor, Worcester, Mass. Circle 43 on reader service card







Hardboard wall paneling, "Prado panish Tile," simulates the look of and-laid ceramic tile. Tough plastic finish is bonded to a hardboard ase. Surface resists peeling, discolring, chipping, scratching or denting. Panels, 4'x8' in size, can be aplied to flat surfaces, studs or furring trips with nails or adhesives. Red, old and blue are available colors. aneling meets HUD/FHA requirements for new construction or remodeling. Wal-lite, U.S. Gypsum, Chicago, Ill. Circle 439 on reader ervice card

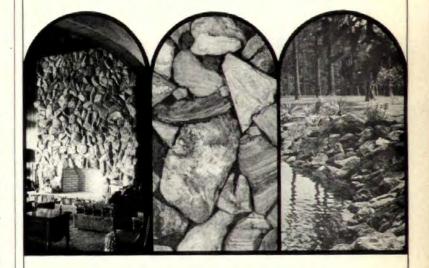
colors, "Franciscan Terra Grande," s shown in an interesting bathroom pplication. Variations inherent in turned clay, emphasized by a blendng of shades, are contrasted with glaze from a different color family. Line offers 16 ceramic glazes suitable for a wide variety of esthetic combinations. White, orange, red, gold, lemon and green are among the colors available. Interpace, Glendale, Calif. Circle 440 on reader service card

7. Wall paneling of genuine old wood blocks combines material from the past with technology of the present. Finish comes from years of sunbleaching and weathering, giving a multi-hued effect. Other products constructed of authentic old wood include interior dividers, doors suitable for exterior applications, partitions and railings. A custom fabrication service is offered. Whittlewood, Albuquerque, N.M. Circle 441 on reader service card



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PRODUCTS: FLOORING

- parquet 1. Hardwood flooring. "Straitline Checkerboard," is offered in genuine Thai-Teak. Traditional pattern is appropriate for commercial or residential applications. Surface is wear-resistant and requires little maintenance. Oriental wood is very resistant to dry rot, decay and termites. Custom-designed patterns are provided by adding selected exotic wood pickets. Bangkok Industries, Philadelphia, Pa. Circle 372 on reader service card
- 2. Saxony plush carpet, "Freedom," is constructed of heat-set nylon. The multi-colored, textured pattern is available in a range of 12 colors. Carpet comes in 12' widths and retails for about \$9.95 per sq. yd. Bigelow-Sanford, New York City. Circle 373 on reader service card
- 3. Solid vinyl tile, "Casa Vista," ha natural look of baked clay. Ti comes in 18"x18" modules with hexagonal pattern. Rectangular ti border on two adjacent sides gives built-in feature-strip effect. Tiles at 1/8" thick, crack- and chip-resistan Integral grouting won't crumble wash away. Flooring is available four decorator colors: Desert Fros Adobe Clay, Palomino and Sunse Kentile, Brooklyn, N.Y. Circle 37 on reader service card
- 4. "Quadrille" carpeting of Kodel polyester is durable and easy maintain. Shown in contemporar living room, carpet features an inse of a contrasting color as a decorate accent. It retails for about \$8.95 pe sq. yd. Masland, Carlisle, Pa. Circ. 375 on reader service card



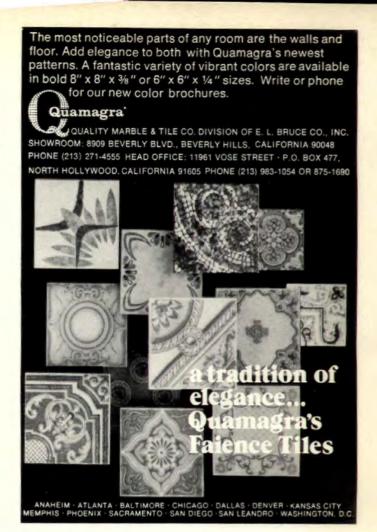


. Classic print frieze carpet, "Orintal Medallion," has semi-formal ffect. Dupont Antron III heat-set ylon pile provides soil resistance nd static control. Large hexagons with a variety of interesting designs re unified by smaller patterned quares. Print is interpreted in five olorations-Bonsai green, Cochin ed, Ming gold, Asama brown and Baghdad blue. Carpet is available in 2' widths only. Philadelphia, Carersville, Ga. Circle 376 on reader service card

. Parquet hardwood flooring of red ak with feature strip complements traditional decor. Flooring is manifactured with durable finish and mooth surface for minimum mainenance. Parquet may be used over concrete or wood subfloor and is

unitized for quick installation. Herringbone, basketweave and an industrial pattern are among design options. Also available in other wood species. A range of finishes is available. Peace, Magnolia, Ark. Circle 377 on reader service card

7. Hand-molded glazed clay tile, EARTHSTONE®, comes in a variety of colors, shapes and textures. Rectangular, square, hexagonal and Spanish tiles are offered. Tile, recommended for light traffic areas, is resistant to abrasion. High strength and low moisture absorption permit exterior use in warm climates. Tiles come in white, gold, green, midnight blue, light blue and brown. Slip-resistant glaze is available. Florida Tile, Lakeland, Fla. Circle 378 on reader service card



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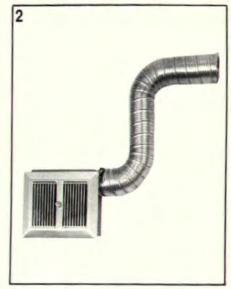


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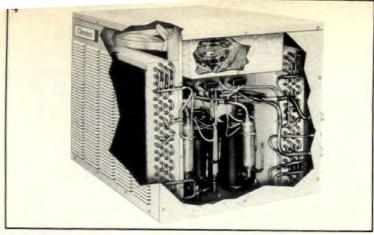
PRODUCTS: INTERIOR ENVIRONMENT

1. Outdoor condensing "Champion IV," for use in a central air conditioning system, features a small fan on either side rather than one large fan. The motor operates at low velocity and supplies the same amount of air to the condenser coil as a unit with a larger fan. Inverted, U-shaped coils are located above the fans so that air is diffused over a wide area. Quiet-operating unit is easily maintained. York, York, Pa. Circle 409 on reader service card

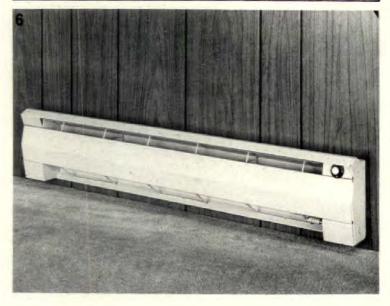
2. Flexible metal exhaust duct makes for easy installation of bathroom ventilating fans. The onepiece aluminum pipe can be fished through small openings, bent around any obstacle and form any angle. The piping, available in 3" and 4" diameters for bathroom fans and

in larger diameters for other install tions, comes in 8' lengths. Wir screw-type clamps secure the duc to collar or exhaust fans. Therma Metal, Baltimore, Md. Circle 410 of reader service card

3. New-vent® wall heaters are gas operated, sealed combustion chamber units available in 11,000 22,000 and 33,000 BTUH. A cast iron burner provides full, ever warming. Easy-to-install heater that vent through the wall to the outside come complete with all ac cessories. Pilot light and other con trols are hidden from view behind handy access door. Cabinets, with baked-on enamel finish, are con structed of heavy gauge steel Peerless, Dover, Louisville, Ky Circle 411 on reader service card





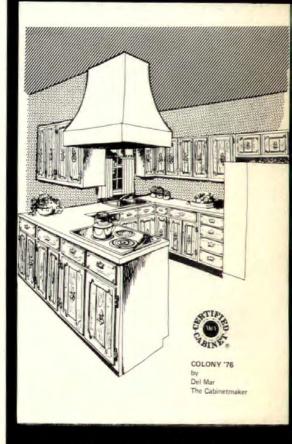


- 4. High efficiency condensing unit for central air conditioning utilizes "Model R" rotary compressors which are about half the size and weight of conventional compressors. Eight models, in capacities from 18,000 to 60,000 BTUH, are offered. The five smaller units use a single rotary compressor; the larger models are powered by twin rotary compressors. Unit is designed for easy installation. Mueller Climatrol, Piscataway, N.J. Circle 412 on reader service card
- 5. Heavy-duty room air conditioner is a powerful, 27,000 BTUH capacity unit that cools large, hard-to-control areas. It removes over eight pints of moisture per hour from the air. Unit, designed for through-the-wall or transom mounting, features a slide-

out chassis for easy servicing. Fourway vents allow air flow to be aimed in any direction. Air conditioner, with a three-speed fan, has an adjustable thermostat. Emerson Quiet Kool, Woodbridge, N.J. Circle 413 on reader service card

6. Electric baseboard heater is suitable for remodeling and room addition applications as well as installation in hard-to-heat areas. The UL-listed "Nivron" heater is engineered to move heated air faster, distribute it better and hold room temperatures at uniform levels. Heaters, in 2', 3', 4', 5', 6' and 8' lengths, are offered with a full line of accessories. Built-in or line and low-voltage, wall-mounted thermostats are available. Vulcan, St. Louis, Mo. Circle 414 on reader service card

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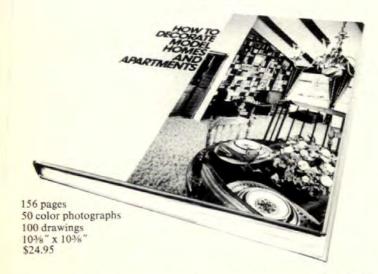
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Next best to having Carole Eichen on your design staff is Carole Eichen's new book of design ideas on how to decorate for your particular segment of the market. Step-by-step, Carole walks you through the complex process of design decisions leading to that single telling moment when the prospect says, "Yes, I like it. I'll buy it.

Drawing from long years of experience, Carole tells not only why, but also how to put more sell into model homes and apartments.

Her best-selling designs are presented in clear-cut text illustrated with fifty large, full-color photographs, each accompanied by before-andafter schematic diagrams moving your mind from the design problem to the design solution to the ready-to-sell results.

HOW TO DECORATE MODEL HOMES AND APARTMENTS explains the key factors to be considered in creating best-selling interior designs for

- · Kitchens
- · Master Bedrooms
- · Dens

- · Bathrooms
- · Children's Bedrooms · Sewing Rooms
- Living Rooms
- · Family Rooms

- · Sales Offices

- Dining Rooms
- · Built-ins
- · Patios & Balconies

Presenting an array of interior design ideas adaptable to your own condominiums, rental apartments and single-family homes, this masterful guide also gives you special insight on the major elements of residential design: color, lighting, built-ins and accessories.

HOW TO DECORATE MODEL HOMES AND APARTMENTS also details the design decision-making process involving fundamental judgments on

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- How to make interior design costs pay for themselves,
- · How to keep abreast of current decorating trends,
- · How to bring your models in on schedule,
- · How to plan for effective model maintenance,
- · How to coordinate salesmen with the marketing team, and
- · How to put it all together for total impact.

Equally important to the workings of successful interior design are Carole Eichen's suggestions on what builders should expect of designers . . . what designers should expect of builders . . . how to draw up a good contract with the interior designer . . . how to control schedules, deadlines and the countdown for installations.

Inexpensive ways to avoid costly mistakes, budgeting do's and don'ts, and matching design to your market parameters are other practical aspects which make this new book an effective working tool for selling condominiums, rental apartments and single-family homes successfully in any locale at every price level.

Builders and developers who have profited from Carole Eichen's services would readily agree that your model homes and apartments will never look quite the same after you get your hands on this practical book of successful interior design ideas. Order the book today and add Carole Eichen's expertise to your own experience in selling homes.

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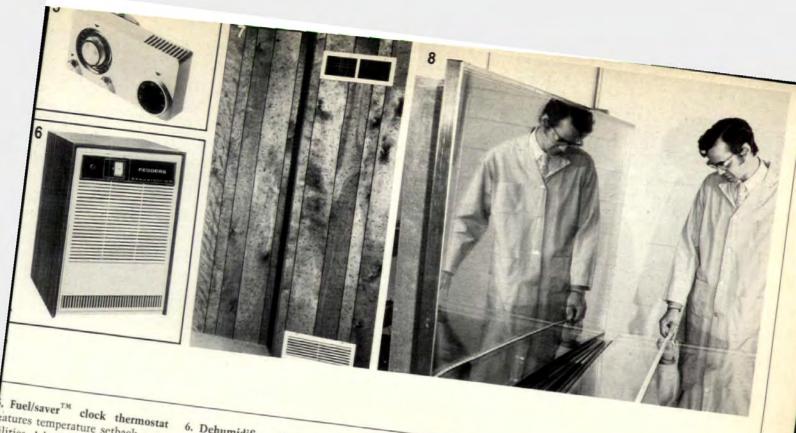
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Fuel/saver[™] clock thermostat atures temperature setback capailities. A built-in timer can be preet to automatically activate the setack device, thus lowering room emperature by 10°. At the end of a elected time it reverts back. Ampark, Fair Lawn, N.J. Circle 405 on

6. Dehumidifier with a lightweight compact rotary compressor has a high capacity rating and a low power consumption. Unit is available in five model sizes, all equipped with humidistats that automatically maintain a preset moisture level. Fedders, Edison, N.J. Circle 406 on

7. Self-contained unit for heating and cooling eliminates the need for a furnace room. It can be easily incorporated into the design of multifamily housing. The all-electric compact unit needs no special pipes and comes in a range of capacities. Sears, Chicago. Circle 407 on reader service card

8. Solar energy collector cells are for hot-water and heating systems of multi-story structures. The boxlike, flat-plate cells consist of two clear tempered glass panels plus an insulated black aluminum absorber plate in a stainless steel frame. PPG, Pittsburgh, Pa. Circle 408 on reader



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Solid vinyl siding is discussed in an eight-page booklet that shows a variety of applications of the siding and lists its benefits. These include durability, insulation and easy cleaning. Full-color photos of houses demonstrate siding styles. Mastic, South Bend, Ind. Circle 451 on reader service card

Electric radiant-heat ceiling system is described in eight pages. Planning section includes charts for choosing insulation and panels and a sample floor-plan showing system placement. Installation is described and illustrated with step-by-step photographs. Specs and diagrams of ceilings with heating system are given. Gold Bond, Div. National Gypsum, Buffalo, N.Y. Circle 452 on reader service card

Wiring device requirements of the newly revised 1975 electrical code are summarized in an eight-page booklet. New requirements for ground fault protection, receptacle location, lighting outlets and caps and connectors are discussed. Arrow-Hart, Hartford, Conn. Circle 453 on reader service card

Gasoline-driven vibro plates are cataloged in four pages. Photos of five models are shown and their special features, applications and specifications described. Manufacturer's other products are listed. Wacker, Milwaukee, Wisc. Circle 454 on reader service card

Hardboard paneling is cataloged in six pages. Roughsawn lap and panel, smooth lap and panel and shake styles are shown in full color. Specs and general information are given. Forest Fiber, Forest Grove, Ore. Circle 455 on reader service card

Plywood grades and applications are the subject of a flyer. The American Plywood Association's grade-trademarking system is explained in detail on two charts that list descriptions and most common uses; terms to be used in ordering; illustrations of the grade-trademarks stamped on panels; and veneers and thicknesses available. American Plywood Association, Tacoma, Wash. Circle 456 on reader service card

Asphalt roofing application is discussed in a 23-page booklet. Roofing type selection and basic points in roofing application are outlined. Then each stage, from deck preparation through maintaining the finished roof, is described in detail and diagrammed. Flashing and underlay requirements and application for various situations, and different methods of nailing and spacing, are among the topics covered. Asphalt Roofing Manufacturers Association, New York City. Circle 457 on reader service card

Soil surveys available from the U.S. Department of Agriculture are described in a flier and their value to developers is illustrated. The flier also tells how to obtain these surveys. To get the flier, send 25¢ to The Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, and order publication 0100-02912.

All-masonry construction of garden apartments and townhouses is discussed in a 24-page booklet. Booklet attempts to prove that despite higher initial cost, masonry construction produces higher profits due to the lower fire-insurance premiums applicable to masonry and the higher rents and lower turnover created by tenant satisfaction with its soundproofing qualities. Flexicore, Dayton, Ohio. Circle 458 on reader service card

Glued-laminated timber construction of recreational projects is the subject of a 12-page booklet. Brief case studies demonstrate the use of glulam timber in a racque club, a ranch resort, a municipal recreation complex and a high-school field house. Full-color photograph show other uses. The ability to spallarge spaces, great strength and flexibility are some of the characteristic claimed for glulam. American Institute of Timber Construction, Englewood, Col. Circle 459 on reades

Flush doors are cataloged in eight pages. Hollow-core, wood-bloc solid-core, particle-board and lead lined doors are listed and their specifiven. Fire ratings are charted Paine, Oshkosh, Wisc. Circle 460 or reader service card

Metal building systems are discussed in a 65-page manual that includes sections on design, recommended specifications, nomenclature and a recommended code of standard practice.

The design section gives equations for dealing with dead, live an wind loads—including a map the shows windload recommendation for various parts of the country.

The Metal Building System Manual costs \$5.00 from the Meta Building Manufacturers Association, 2130 Keith Bldg., Cleveland Ohio 44115.

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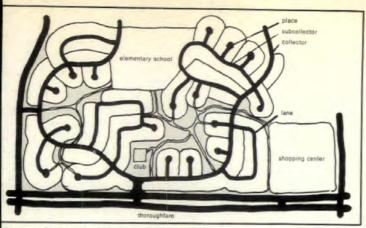


Diagram from ULI publication illustrates a classification system based on street function: a place is a cul-de-sac or court leading traffic from dwellings to other streets; a lane connects places and leads traffic to other streets; a subcollector provides access to places and lanes and conducts traffic to activity centers and larger streets; collectors (800-3,000 users) connect major streets and centers.

ommunity street standards are ten based on highway-design pracce, not on the needs and expectaons of residents—and that can be asteful, says a 48-page Urban Land istitute publication.

For instance, says the book, daily affic averages on "collector streets". all over the U.S. are significantly igher than the upper limits shown" bove!. Yet these streets don't invenience or endanger their users. If these streets had been designed cording to standards based on aily traffic, an often used method of

highway classification, they would have been more costly than necessary.

Residential streets, a joint study by the Urban Land Institute, the National Association of Home Builders and the American Society of Civil Engineers, suggests street widths for various situations, speed control methods and some other planning considerations.

It can be bought from the Urban Land Institute, 18th St. N.W., Washington, D.C. 20036 for \$4.50 by ULI members and \$7.50 by others.

Golf Course Developments is a 106page, fully illustrated, Urban Land Institute Publication. It cites United States Golf Association regulations for courses and defines basic terms. The book also describes possible course layouts, analyzing each one and demonstrating how it works with various housing types. Various aspects of golf course design (drainage, topographical considerations, vegetation, etc.) are discussed and examples given. Construction methods for golf-course features are also discussed, and costs are listed. Each stage in the design of an actual golf course development is analyzed, and the book concludes with a chapter on clubhouse planning and membership. Golf Course Developments is available from the U.L.I., 1200 18th St. N.W., Washington, D.C. 20036 for \$15.

Diplomacy planning is defined as the developer's "direct dialogue and negotiation with citizen interests," in a 20-page publication of the Urban Land Institute.

An article discusses the need for developer-citizen coordination, then cites two examples.

Although diplomacy planning has been used too little for any hard-andfast rules to have been developed, the article makes some practical suggestions:

"Carefully, identify all citizens interests"; "go to the citizens before any public announcement is made"; "be prepared to make concessions and live by them"; "aim at formal citizen endorsement."

The second article in "Diplomacy Planning" describes the actual procedure a design firm used to gain approval for a controversial project.

The book can be bought from the U.L.I., 1200 18th St. N.W., Washington, D.C., 20036 for \$3.00.

Merchandising through interior design is the subject of a book by Carole Eichen, a prominent model home and apartment decorator, and HOUSE & HOME contributing editor.

The book tells how to create model interiors "that directly relate to the demographic profiles of prospective buyers and renters."

This design technique is illustrated by 50 four-color room photographs and 100 before and after annotated sketches.

Detailed case studies of six successful projects demonstrate the technique.

How to Decorate Model Homes and Apartments is available for \$24.95 from House & Home Press, 1221 Avenue of the Americas, New York, N.Y. 10020.

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W-600 Laundry-Mate Supply and Drain Fixture



The market-place for the housing and light construction industry

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Construction Execs. Dir Res Mktg, must be hvy in all aspects-panelized exp a +, \$30K. Prop Tax Repdegree/prop appraisal exp \$14K. EDP Analyst design appl, 2-4 yrs engrg bkgrd \$17.8K Estimators/ Proj Mgrs comml & ind \$excl. Vance Employment Service, 917 Barfield Bldg, Amarillo, Tx 79101.

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Post Office Box 900, NY 10020

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AN EXPANDED SERVICE FOR YOU-ONE YEAR LATER

Starting with our January, 1974 issue, House & Home expanded its regular Job/Land Market department into a Classified Section format, to be located in the back of the publication.

This service has created a market-place where you can reach your peers-400,000 House & Home readers in every phase of housing and light construction-with three types of low cost classified advertising under headings such as the following:

Employment Opportunities Rate

Positions Vacant Positions Wanted Sales Opportunity Available Sales Opportunity Wanted **Employment Agencies Employment Services**

Professional Card Rate

Consulting Services Sub-Contractors

Classified Rate

Used/Surplus Equipment Materials for Sale Materials Wanted Land for Sale Plants/Properties for Sale **Business Opportunities** Financial Opportunities

The above categories will be available in both Display and Non-Displayed styles:

Display Advertising is sold in units up to a page in size and can contain photos and/or ted as finished art, in film ings, a preprint of recruitment form, or can be set in type with advertising scheduled for upborders. (The latter service coming issues of 22 McGrawperformed by House & Home Hill publications. This means at no extra charge.)

set solid in type with the first line in bold-face, and sold by to be the first to know about the line with a three-line minimum. (Box number counts as an additional line.)

Positions Vacant advertising in both styles will also be in-

artwork. Copy can be submit- cluded in Advance Job List-House & Home recruitment advertisers will receive extra Non-Displayed Advertising is and early replies from jobseeking AJL readers who want positions open both in and out of their fields.

To complete our package of services to you, to help you meet last minute deadlines a Xerox 400 telecopier (which also receives copy from other makes) is available. To find out if your equipment is com patible just call 212/997-6800.

And for more information about any of the above or the rates at left, call Frank Eberle at 212/997-2556 or write to House & Home, P.O. Box 900 New York, N.Y. 10020.

HOUSE & HOME'S EXPANDED CLASSIFIED SECTION

Closing Date: 1st of the **Preceding Month**

HOUSE & HOME CLASSIFIED SECTION RATES **EFFECTIVE JANUARY 1975**

Standard	Units	1-T	3-T	6-T	12-T
One page		.\$3000.00	\$2900.00	\$2800.00	\$2650.00
½ page		1770.00	1710.00	1650.00	1565.00
1/4 page		900.00	870.00	840.00	795.00
		Units			

	1-T	12"	24"	48"	96"	180"	360"
Per Inch	\$59.50	58.85	58.30	57.00	55.70	53.00	50.50
Professiona	l Card	Rate	Emple	oyment/C	lassified	Non-D	isplayed
(Non-Com	nissiona	ble)	Rate	Non-Cor	nmission	able)	-
One inch n	inimum	size-	\$5.40	per line,	3 line min	imum. B	ox num-
6-T:\$53.00	12-T:S	50.50	ber co	unts as a	dditional	line.	

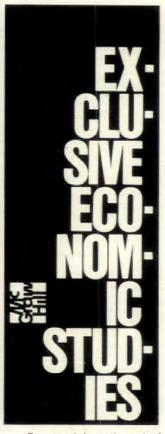
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Department of Economics

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Give Nevamar moldings a try...on us. Send this coupon...we'll send you a sample, and complete details.

Test a sample yourself.

EXON	EXXON CHEMICAL COMPANY U.S. Odenton, Maryland 21113	S.A.		
CHEMICALS	I'd like to put Nevamar moldings to my own test. Please rush a sample and product details.			
Name				
Title				
Company				
Address				
City	State	Zip		

See them all... NAHB Show Booth No. 1731

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

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