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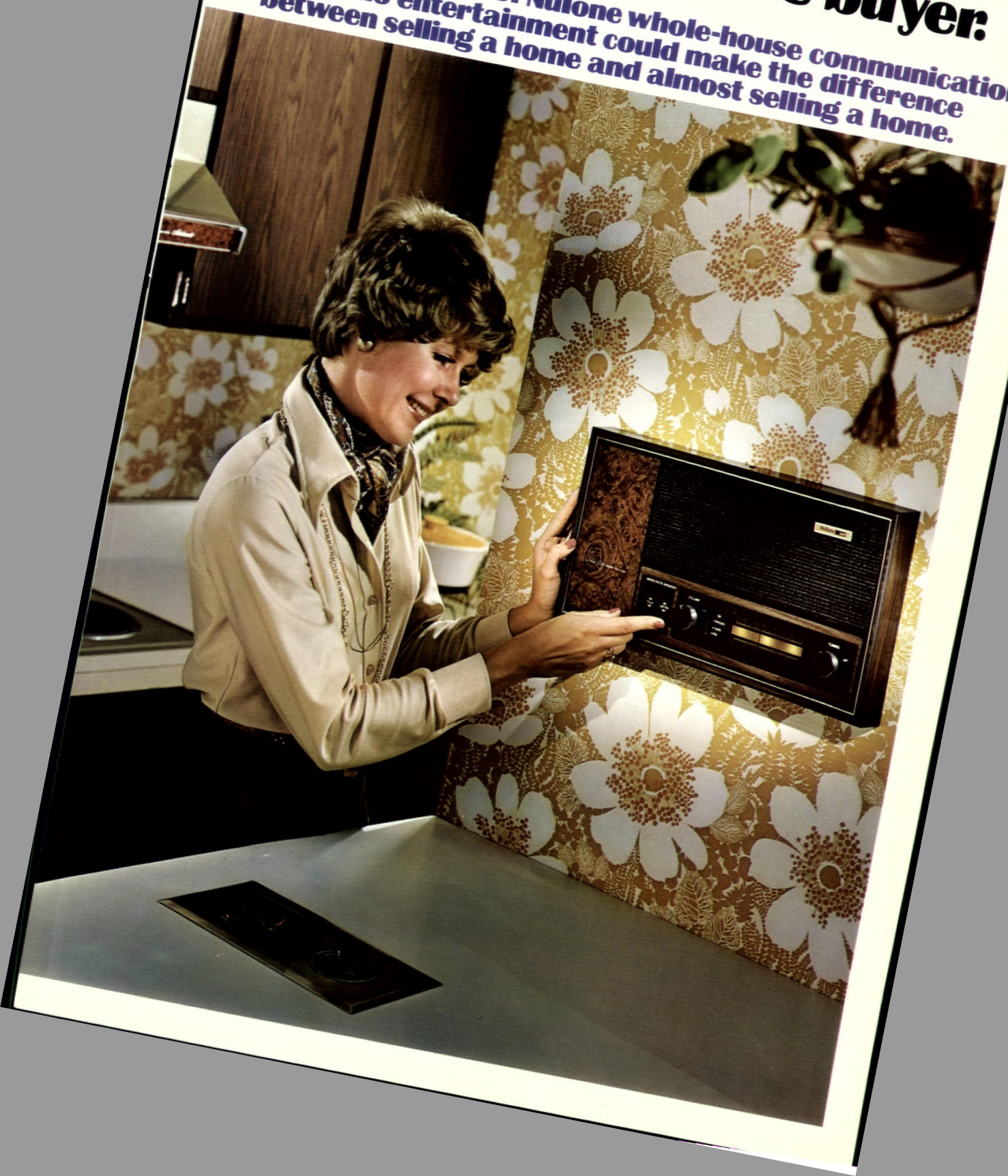

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CIRCLE 4 ON READER SERVICE CARD

Homebuyers get $2,000 tax credit—Value to industry questioned

The federal government is offering the consumer a $2,000 tax credit if he will buy a new home this year to help clear the inventory of 400,000 houses and 200,000 condominiums overhanging the market.

Cutting the cost of new homes may invigorate sales, of course—but there's a big question of whether it will stimulate starts.

Unlike the auto industry's outright price rebates, the housing tax credit comes from the U.S. Treasury and not out of the profits of the builder or seller. The credit provides a subsidy of 5% of the purchase price, up to a maximum of $2,000—the amount of credit allowed for a home priced at $40,000 or more. The customer gets his rebate by taking it off his tax bill when he files his tax return.

TAX CREDIT EXPLAINED

- Questions, answers: What's a start? Must lowest-price rule always obtain? When is rebate a price cut? —Page 9
- Builders' own reaction: Ho-hum in Chicago but dynamite in Atlanta. —Page 10
- The politics behind the tax credit. Senator Long's end-run to pay touchdown. —Page 9

A recapture provision takes effect if the taxpayer sells the home within three years. This will not apply if another principal residence is bought within 18 months. A Senate amendment to the tax bill extended this reinvestment period from the 12 months allowed in the House version.*

Cost to U.S. The cost to the Treasury was estimated by the staff of the Joint Tax Committee of Congress at $725 million, or $125 million more than the $600 million estimated during debate on the final bill. The estimate is that $625 million will be taken next year on calendar 1975 tax returns and another $100 million on 1976 returns. Committee aides calculated the average credit would be less than $1,500, indicating that close to 500,000 homebuyers would benefit.

During debate on the bill, a member of the Ways and Means Committee, Charles Vanik (D.-Ohio), cited estimates that the net increase in housing sales—that is, the sales that would not have been made this year except for the credit—would be about 75,000 units. This year's other buyers—who may number 400,000 or more—would presumably have bought a new house even if the subsidy had not been available, according to the staff economists working for the House and Senate tax-writing committees.

Lobbying by NAHB. Chairman Al Ullman (D.-Ore.) of the Ways and Means Committee said he doubts that the cost of the credit will be as great as the official estimates. During the House debate he predicted the loss would be "only" $600 million, adding, "and I think in fact it will be a lot less." Both government and private economists agreed that all estimates are shaky.

The National Association of Home Builders backed the tax credit in testimony before the Senate Finance Committee, where the proposal had the vigorous support of Chairman Russell Long (D.-La.). Carl A.S. Coan Jr., the lobbyist for NAHB, told the committee that unless such special action was taken by Congress to encourage people to buy new homes, "we see little hope" for a housing recovery this year.

But after the bill was passed Michael Sumichrast, the NAHB's economist, said he would not even revise his estimate of 1.3-million housing starts for this year—"the same number as last year."

SENATE'S LONG
He ran with the ball

Warning on inflation. The Mortgage Bankers Association's executive vice president, Oliver H. Jones, said in a terse statement:

"Whatever tax break this year's homebuyer gets from the U.S. Treasury will be paid by next year's homebuyer in a further inflated cost of housing."

The economist for the Association of Mutual Savings Banks, Saul Klaman, said: "In terms of clearing the market it (the tax credit) will have some effect." He wasn't ready to say how much.

Privately, housing economists say that most if not all of the buyers that are expected to get the credit would have bought anyway and—as Jones indicated—they say the additional Treasury borrowing necessary to pay the subsidy will put just that much additional inflationary pressure on interest rates.

Bill's limitations. The tax-credit idea surfaced in the Senate, where Edward Brooke (R.-Mass.) originally sponsored a proposal for an outright $1,000 payment. Brooke's idea was that the homebuyer would use the Treasury check to help meet his down payment. This, Brooke contended, would be more stimulating to sales than, in effect, knocking $1,000 or $2,000 off the price of the house.

Chairman Long took the idea and ran with it, first proposing that the credit apply to all housing sales, new and used, at a cost to the treasury estimated at $3 billion to $4 billion. This was cut back first by an amendment moved by Senate Majority Leader Mike Mansfield (D.-Mont.), which eliminated any credit for sales of used housing—a bitter blow to the National Association of Realtors.

Then the conference committee restricted the bill further by narrowing the credit eligibility to units already built or under construction by March 26. That limited the credit strictly to the market overhang, eliminating any new houses builders might have otherwise undertaken to take advantage of the credit.

Theory of stimulus. The theory behind the $2,000 subsidy is simple: the help in selling houses in inventory will return capital to builders who would otherwise be unable to begin new construction.

"This inventory liquidation is needed before home construction can recover," Ullman told the House.

"I believe the tax credit . . . will turn the housing industry around and enable it to lead the way to economic recovery," Long told the Senate.

Critics complained that the bill would not stimulate families that would buy a house even if there were no $2,000 credit.

Mortgage-aid bills. Before the tax credit's effect could even be assessed, the House had rushed through two other housing-assistance measures. Both of these called for mortgage subsidies.

The Middle Income Housing Act of 1975 (HR 4485) would subsidize mortgage interest down to 6% or 7% for buyers of houses costing up to $38,000.

The other bill would provide loans up to $250 a month to enable the unemployed to maintain their mortgage payments.

—DON LOOMIS
McGraw-Hill World News,
Washington

THE $2,000 CREDIT AND WHAT IT COVERS

Dwellings eligible:

Single-family homes, condominium units, co-op units, mobile homes—providing they were built and in inventory (but unoccupied) or "under construction" before March 26, 1975. The unit must be the principal residence of the purchaser. The unit must have been bought by the taxpayer after March 12, 1975, and before January 1, 1976, and must be occupied before Jan. 1, 1977. Rehabs not eligible.

Amount of credit:

Five percent of the purchase price (no limitation) up to maximum of $2,000. The credit also applies to owner-constructed property begun before March 12, 1975, but can be taken only on the value of the construction taking place after March 12.

Price certification:

Seller must supply certificate, to be attached to buyer's tax return claiming the credit, asserting that the sales price is not higher than the lowest price at which the house was offered for sale at any time. Penalty for false certification: seller is subject to treble damage suit, tax-fraud charges and attorney's fees.

Estimated cost to the Treasury:

About $725-million.

*The home-purchase tax credit was part of The Tax Reduction Act of 1975, passed by the House, 288-125, and by the Senate, 55-16, on March 26; signed by President March 28.

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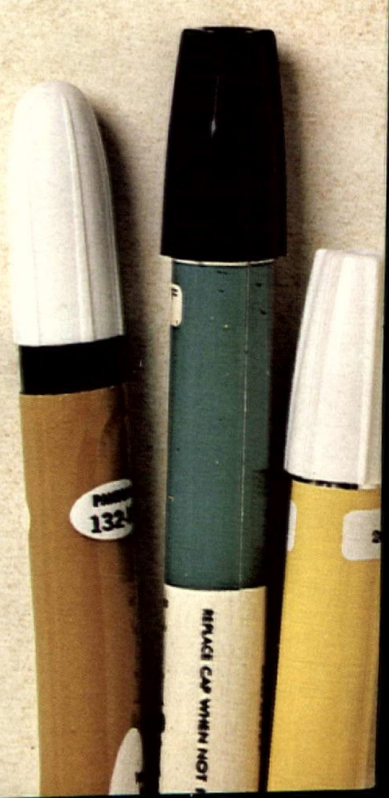

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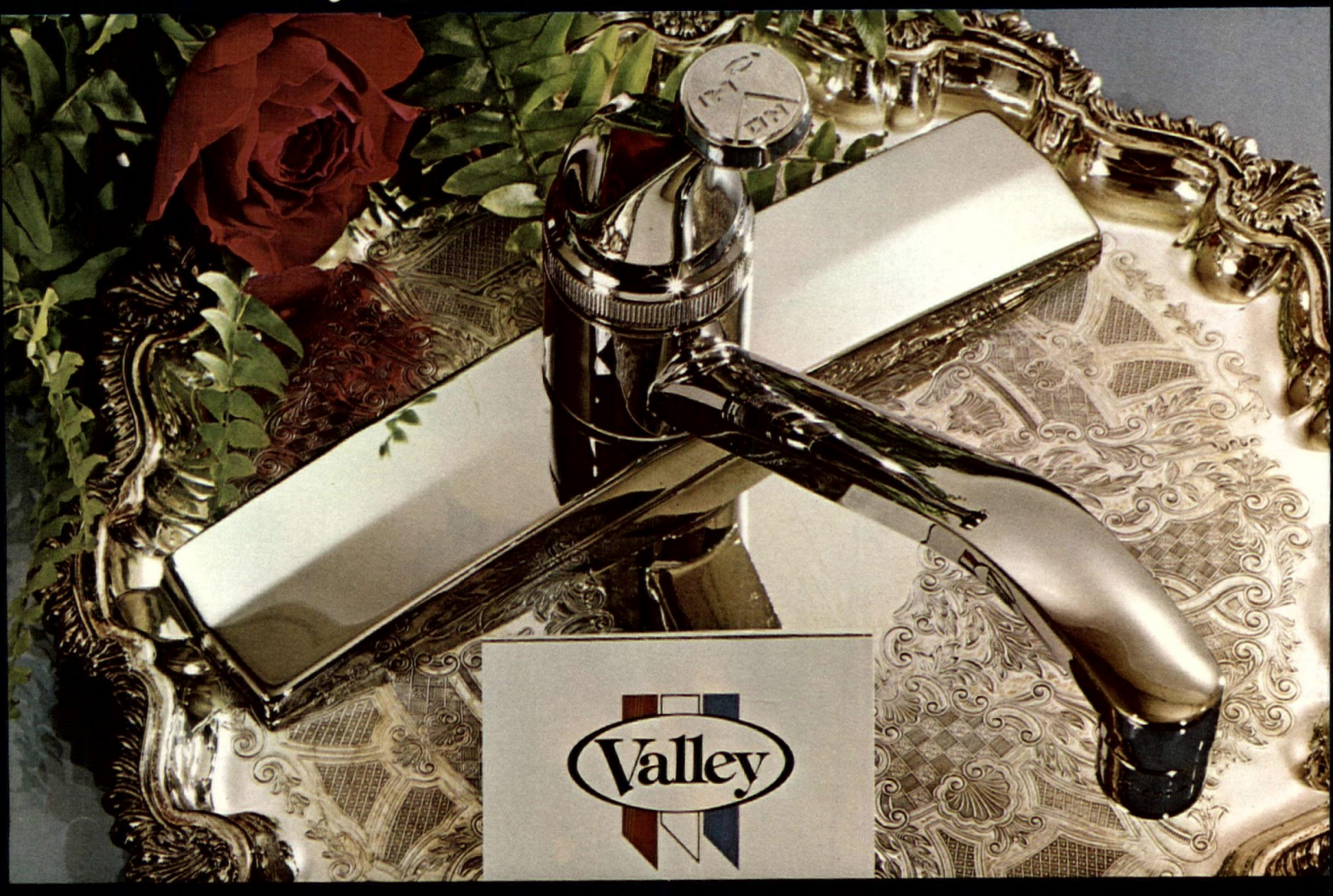

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CIRCLE 8 ON READER SERVICE CARD

Tax credit confusion: An oral offer of a price cut doesn't count

An oral offer to sell a house at a price below the advertised or listed price doesn't count under a key section of the new 5%-or-$2,000 tax credit to be given to buyers of new housing units.

With that ruling, the Internal Revenue Service took one source of confusion out of the new law Congress passed to subsidize sales of new housing units.

What IRS did, in an official interpretation, was to limit "an offer to sell" to a "listing, a written private offer, or an offer by means of advertisement to sell a specified residence at a specified purchase price." That means the seller can forget he ever made any word-of-mouth offer; and he can certify to a buyer that the price at which the house was offered in writing or advertising is the lowest price at which the house was ever offered.

Robert Cushman of the NAHB said that nearly every house eligible for the credit has had an advertised or listed price placed upon it.

IRS pamphlet. The IRS issued a four-page *Technical Information Release* (TIR-1360) which provides a brief interpretation of the tax credit's language. The release tells most builders whether most of the units they have in inventory or under construction qualify for the credit.

However, there are many borderline situations—including tricky questions of the lowest price put on a house—for which official answers aren't going to be out anytime soon. Detailed IRS regulations aren't likely to be available until late this year. A builder can request a ruling in writing on the specific situation he faces, but an answer from IRS in Washington is likely to take months.

Good faith. The IRS was swamped with inquiries from builders from the day the law was signed (March 28), and the service has now passed the word that builders will have to do the best they can with the interpretive pamphlet issued April 9.

"The builder should keep in mind the intent of the law, and what the IRS says about figuring the lowest price, even if he has to go on his own," one IRS source said. "We're not going to put anyone in jail if he makes a good faith effort to follow the intent of the law . . . that's about all we can say at this time."

What is a start? At the offices of the National Association of Home Builders in Washington, one official said, "The IRS release covers most situations. Of the widely asked question, What is a start?, this official observed: "Most builders know when construction began on a house as well as what the lowest price offered was."

But to get the sales promotion benefit of the tax credit, many builders are expected to try to stretch the interpretation of the start date to cover as many houses as possible. "In that case," says this NAHB source, "the best thing for the builder to do is follow the advice of his tax lawyer."

On that question of when construction has begun, the IRS says: "Construction is considered to commence when actual physical work of a significant amount has occurred at the building site." This means "digging of footings, excavation of the building site, or similar work" and must be "more than drilling to determine soil conditions, preparation of an architect's sketches, securing of a building permit or grading of the land."

Are sewers starts? The IRS was asked by the NAHB: what about major construction of streets and sewer lines, for example, that must be made, in many instances, before construction can begin on the building site? The IRS pamphlet says footings, excavation "or similar work" can constitute "significant amount of construction." But are the roads and sewers "similar work"?

Another question is whether significant construction on swimming pools, tennis courts and similar amenities renders condominiums eligible. Such construction frequently is begun or completed first as part of the sales pitch. Or must excavations and foundations of the apartment structure itself have begun for the condo buyer to be eligible for the credit?

Rebate and residence. The IRS sources were not able to come up with early answers to specific questions about how to treat cash rebates or gifts of say, a $3,000 automobile or a $500 television set in the deal to clinch the sale of house or condominium. The tax credit would presumably be available only on $38,000 of the purchase that includes a $3,000 car and a house for total of $41,000.

What constitutes a principal residence as opposed to a—as the Social Register puts it—dilatory domicile?

The concept of a principal residence has long been established in tax law and poses no new problem. The unit qualifying for the tax credit must be the principal residence of the purchaser. A taxpayer can have only one principal residence and it's usually the one where he lives most of his time.

Mobiles, factory houses. Construction of a mobile home or factory-built house is considered to have begun with the "construction of important parts of the unit." Assembling "a minor portion of the components" is not enough, the IRS says.

The IRS nailed down that only a brand new residence, never lived in "prior to occupancy by the taxpayer," can qualify for the credit; "a renovated building does not qualify . . . regardless of the extent of the renovation." However, a new house first occupied by a customer under a lease arrangement "pending settlement of a binding contract to purchase or pursuant to a lease arrangement (with) a written option to purchase" is eligible for the credit.

How about a house temporarily occupied in a development—say for a month or less—by a customer pending completion of the specific unit the customer actually purchases? Is it ineligible? There's no early answer on that one. The NAHB's lawyers say, in fact, that they discussed more than 20 such gray-area questions with IRS officials without getting definitive replies. —D.L.

The politics behind the tax credit

The two Banking Committee chairmen—Senator William Proxmire (D.-Wis.) and Representative Henry Reuss (D.-Wis.)—were outmaneuvered on the housing tax credit by Senator Russell Long (D.-La.), as wily a legislator as there now is in Congress.

Reuss and his House colleagues had passed a mortgage-subsidy bill for middle-class buyers and Proxmire's Banking Committee was ready to take it up and speed it through after the Easter recess.

The bill, The Emergency Middle-Income Housing Act of 1975 (HR 4485), was passed by a vote of 259 to 106 on March 20. It would subsidize buyers of houses priced no higher than $38,000.

The subsidy in the House bill would bring the effective interest rate to the buyer down to 6% for a six-year period, or—at his option—to a 7% rate for the life of the full term of the mortgage. Only 30% of the funds would be available for sales of existing houses, the balance for new units.

More to come? When it was clear that the $2,000 tax credit was going to be enacted before the interest-rate subsidy, Reuss pointed out that by limiting the credit to new homes in inventory, the tax credit subsidy would "dovetail nicely" with the interest-rate subsidy bill. His theory: let's eliminate the requirement that 30% of the interest subsidy go to buyers of existing housing and switch the entire subsidy in the bill "to stimulate additional housing starts in the coming year." The same strategy was endorsed by an aide to Proxmire.

Veto possibility. Whether this would succeed was a question. President Ford stressed in his television speech when he signed the $22.8-billion tax cut that from here on he would "resist every attempt by Congress to add another dollar to this deficit by new spending programs."

Insiders guessed that if and when the interest-rate subsidy bill reached the White House, Ford would be almost certain to veto it, and that—in view of the subsidy already given to homebuilders and buyers—such a veto would have a good chance of being sustained. They cited the narrow margin—only 214 to 197—by which the House defeated a motion to send the conference-approved bill back to the conference committee.

Builders' view of tax credit: Ho-hum in Chi, dynamite in Atlanta

Builders sitting on a heavy inventory of costly new houses are optimistic to ecstatic about the $2,000 tax credit just voted by Congress *(page 5)*.

Builders with little or no inventory—either because they were cautious on starts or cleared their inventory with aggressive sales campaigns—say, "It won't do much for us."

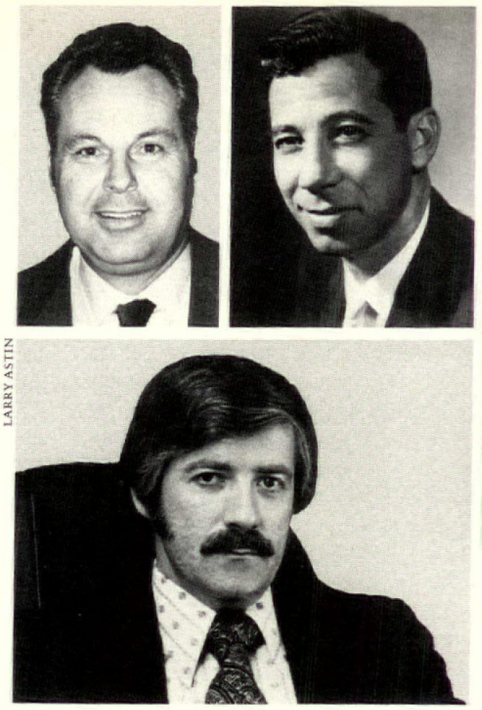
One of the optimists, Chairman Frank Conti of the Associated Building Industry of Northern California, a trade association, says the credit "is a catalyst that will lift the housing market out of its doldrums" in his territory.

Optimism on Coast. Conti estimates that there are 15,000 houses in the San Francisco bay area that qualify for the credit. "The $2,000 bonus . . . will certainly clean out the existing inventory of previously built homes in the bay area by July 1," he insists. Other West Coast builders seem to feel the same way.

From southern California Roland Osgood, senior vice president of the Grant Co. of Santa Ana, reports, "We're getting feedback from some of our potential customers who would like to capitalize on the tax credit, and will hold off purchase to qualify." It will, he adds, help sell existing inventory.

A note of warning was added, however, by Vice President Forbes Burdette of Challenge Homes in Redwood City, near San Francisco:

"The caution that people have with respect to buying new homes will still prevail," he said.



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Building leaders from top left: California's Frank Conti, Chicago's Jack Hoffman, Atlanta's Jerry Cohn; lower left, Atlanta's Lee Matthews.

Dissonance in Chicago. In Chicago, President Jack Hoffman of the Hoffman-Rosner Co. claims the credit will do more for builders in Florida and California than for those in the Midwest. "The largest inventories are in the warm areas," he said. "In Chicago, Cleveland and Detroit, we just don't have the inventories."

Mostly, says Hoffman, the credit will help "the guy who went out on a limb six months ago and poured a trillion foundations. . . . Now he's a hero. I've got some homes that will qualify, but not as many as he does; so after they're gone, I won't have financing for buyers as good as he does."

Another Chicago builder, President Robert Russo of the midwestern division of Tekton Corp., says, "One year ago I had a big inventory" but with big sales-promotion efforts "we solved the problem. The tax credit won't do much for us."

Fervor in Atlanta. "It's going to be like dynamite," according to Atlanta's Lee G. Matthews.

He's vice president of Crow, Pope & Land Enterprises, a builder of condominiums, and he believes Congress was right to focus on inventory reduction. Matthews makes clear that he's talking only of sales, not starts, when he talks of dynamite. "No builder in his right mind will make new starts until he is rid of his inventory," he warns.

Jerry Cohn, president of Cohn Communities of Atlanta, thinks the tax credit could mean a 50% increase in the past month's rate of sales.

"But I don't expect miracles," he is quick to add.

Sales rush in East. The first sketchy reports from the East said the tax credit was achieving or even surpassing its goal.

Marketing Director Bob Jacobs said that, thanks to the tax credit, he closed four sales at his Strawberry Hill condominiums in Stamford, Conn., the Sunday after Congress acted.

"All were borderline cases where the $2,000 was evidently the deciding factor," Jacobs said. "We expect to sell at least 10 of our 35 unsold units the same way."

Builders interviewed in several suburban New York City areas were generally pleased with the law, but they were wary of the requirement that tax-credit sales be made at the lowest price at which a unit had ever been offered.

Bigger turnouts. Buyers in the New York area reportedly started visiting developments in larger numbers after the tax credit became law.

"We couldn't believe it," said President Martin Berger of the Robert Martin Corp., the largest builder in affluent Westchester County.

"Sunday is not usually a big day, but people came to us asking about the credit and other builders reported the same thing.

"This could provide a tremendous boost to the sagging residential construction business."

Housing lenders have money aplenty but builders aren't taking it

Thrift institutions are now deluged with deposit inflows to the point that they are aggressively looking for mortgage loans. They aren't finding them.

The lenders' eagerness to get back into business with builders is tempered somewhat by a hunch that all that money flowing in may flow out again if interest rates move up.

But so vast are the deposit gains that savings and loan institutions and mutual savings banks can at least face with equanimity the feeble demand in the single-family housing market. The Federal Home Loan Bank Board now estimates that S&Ls will pick up a record $40 billion in new deposits in 1975, compared to $16 billion in 1974.

The fly in the ointment is that a large share of the inflows—well over half, in the case of some institutions—is in passbook deposits subject to immediate withdrawal.

Nervous money. Says Economist Kenneth Thygerson of the U.S. League of Savings Assns., "This money comes from individuals switching out of Treasury notes or bills while they decide what to do next. It's not the kind of money on which you make 20-year mortgages."

These funds could disappear into the stock market if it picks up. But a more real threat is a recovery of short-term interest rates when credit markets become uneasy about the heavy Treasury borrowing due in July.

Optimism. The Bank Board's forecast of S&L deposits assumes a strong first half for the industry and a healthy period for months after that. But, observes Saul Klaman, chief economist of the National Assn. of Mutual Savings Banks, "the danger point is first quarter 1976."

Thygerson insists that the prospect of a rise in rates is not scaring S&Ls.

"The demand isn't there," he says to explain their lack of lending.

Still, there remains an uneasy balance between the apathy of potential borrowers and the willingness of thrift institutions to write loans.

Says John McDonald, vice president of the Workingman's Cooperative Bank, a Boston S&L, "We just don't know what's going to happen." McDonald says his institution stands ready to hold down mortgage loans if hot-money outflows make it risky to keep on lending.

—STAN WILSON
McGraw-Hill World News, Washington

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CIRCLE 11 ON READER SERVICE CARD

N.Y. agency's default perils public housing finance across U.S.

The default by New York state's Urban Development Corp. on $104.5 million in notes on Feb. 25 has sent tremors through the market for the bonds of other state housing agencies.

These agencies, widely viewed as an important new source of money for low- and moderate-income housing, raise the bulk of their capital in the municipal bond markets. As of November 1974, 36 state housing agencies had $6.4 billion in housing-related debt of all kinds outstanding.

Market troubles. Since the UDC debacle, some state agencies have found difficulty in placing new debt, and outstanding debt issues have dropped in price. Bond dealers attribute much of this weakness to UDC.

Moreover, the controversies now surrounding UDC are calling into question the basic viability of the moral-obligation bond, a financing device that had been increasingly relied upon by housing agencies.

Different breed. Observers of the bond market and of the agencies say that, although the future of UDC itself is still unsettled, most other housing agencies should be able to shake off the ripple effect of the UDC's troubles. This is because UDC is unlike other agencies.

For one thing, UDC is a developer, and on a scale not even approached by any other state agency—33,661 units built or under construction as of late last year. Most other state housing agencies act entirely or primarily as lenders, not developers, and so avoid risks accepted by UDC.

As a builder, the UDC has been noted for its innovative designs and development programs. It has won its share of accolades and awards from architects, construction-industry associations—and from this magazine (H&H, May 1974).

Ambitious goals. However, the UDC's extremely aggressive approach to public housing—"They had an in-house philosophy that you build first and cover it with short-term paper, then finance it afterwards," says one observer—has not been widely emulated; other state agencies seem to be much more conservative.

The major banks precipitated the UDC crisis when they declined to refinance the corporation's maturing bond-anticipation notes. They have little to say on the subject of "aggressiveness" in public, but it is no secret that they considered UDC's policies financially dangerous to the point of mismanagement.

It is also no secret that they insisted that UDC's president and chairman, Edward J. Logue, be ousted as the crisis developed.

Logue was replaced as chairman in January by Richard Ravitch, 42, a builder and president of HRH Construction Co. of New York City.

No cushion. The UDC also differs from other states' agencies in that virtually all its bonds are general-revenue bonds. They are not secured by specific projects, as are the typical bonds of other agencies, but by the overall revenues of the company. And the company projects a negative cash flow until "at least" 1979.

Moreover, UDC has not accumulated any significant capital surplus, as have other agencies, that might cushion bond holders.

Instead, the cushion consists of New York state's "moral obligation" to back the bonds. The commercial banks in New York City, which underwrite and also own substantial amounts of UDC's bonds, opted to test the cushion.

JOE RUSKIN

BUILDER RAVITCH
A builder to pick up pieces

The Mitchell bond. Moral-obligation bonds are the brainchild of former Governor Nelson Rockefeller of New York and former Attorney General John N. Mitchell, who was a bond attorney before going on to Washington and conviction in the Watergate trials. While helping create the New York State Housing Finance Agency (a lender independent from UDC) in 1960, Mitchell developed the idea of selling bonds without voter approval. (New York's voters had emphatically rejected conventional bond issues for the same housing—not once but twice.)

Under Mitchell's plan, the state would agree to contribute, as and if necessary, to a "debt-reserve fund" set up to protect the moral-obligation bonds against default. But the state was not *legally* obligated to do so, and that distinction was enough to avoid another referendum.

Billions obligated. The UDC, created in 1968, used the moral-obligation idea with a vengeance; it has $1.1 billion in bonds outstanding and needs another $500 million to $600 million just to meet existing commitments.

And the idea has also spread to other states—among them Connecticut, Maine, New Jersey and Virginia.

"Moral" seemed almost as good as "legal"—until the default. Then the reaction in the municipal bond markets was swift.

'Morals' for sale. The market for UDC bonds disappeared. Nominal quotes ran about 50¢ on the dollar, but a source at Standard & Poor's remarked: "You might be able to sell one at 40—if you can find a buyer."

Other New York debt issues fell in sympathy. "The yield from NYSHFA bonds rose as much as a point-and-a-quarter due to falling prices," according to one Wall Street bond dealer. "And even legal-obligation bonds felt the effect. Bonds for even obviously sound areas like upstate New York communities broke an eighth- or a quarter-point."

New York's penalty. "Anything with the name New York on it was affected," agreed John Pfeiffer, a vice president at Standard & Poor's.

"And," added the bond dealer, "housing finance agency bonds from outside New York broke a quarter- to a half-point."

Several new offerings of housing finance agency bonds had to be delayed, sharply reduced in amount or greatly lowered in price to attract buyers.

Bond market professionals seem to agree that UDC eventually will be bailed out by New York state and the banks involved. A failure by UDC, they feel, would do too much damage to New York's credit rating.

Any takers? But fatal damage may already have been done to the moral-obligation concept. "I think this should scare off the states from issuing new moral-obligation bonds," says Standard & Poor's Pfeiffer.

Especially since, in this post-Watergate era, many more investors may begin to ask the question posed by an anonymous bond trader in *The Wall Street Journal:*

"Why should I buy moral obligations of immoral politicians?"

MORAL OBLIGATION BONDS BY STATE HOUSING AGENCIES

State and agency	Amount (millions)
Connecticut	
Housing Finance Authority	$179.6
Illinois	
Housing Development Authority	196.2
Kentucky	
Housing Corporation	52.1
Maine	
State Housing Authority	65.8
Massachusetts	
Housing Finance Agency	104.5
Michigan	
State Housing Development Authority	276.5
Minnesota	
Housing Finance Agency	84.0
New Jersey	
Housing Finance Agency	154.1
New York	
Dormitory Authority	194.5
Housing Finance Agency	4,000.0*
State Mortgage Agency	373.0
Urban Development Corporation	1,100.0
Battery Park City Authority	200.0
New York City Housing Development Corporation	246.8
South Dakota	
Housing Development Authority	27.0
Tennessee	
Housing Development Agency	32.9
Vermont	
Housing Finance Agency	13.8
Virgina	
Housing Development Authority	112.5
Wisconsin	
Housing Finance Authority	37.6
Non-housing agency bonds, all states	**750.4**
Total	**8,201.3**

SOURCE: MOODY'S INVESTORS SERVICE

*Includes substantial non-housing debt.

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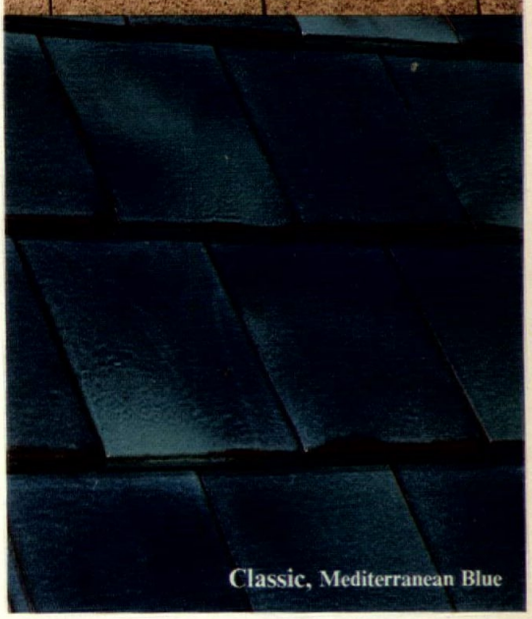
Lanai, Hawaiian Gold


Classic, Mediterranean Blue

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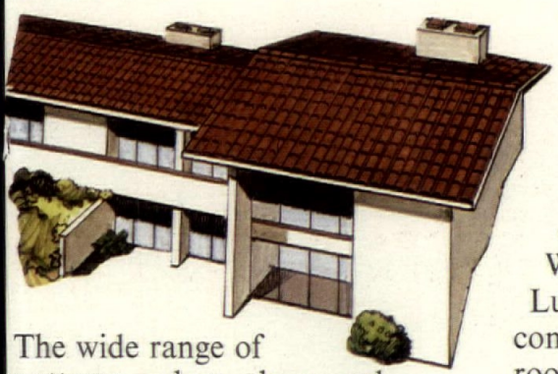

The wide range of patterns, colors, glazes and textures can accommodate any design or mood. From bold barrel patterns to subtle flat shingles, from weathered surfaces to smooth multi-shaded glazes, Ludowici tile fuels the imagination of the most creative designer . . . satisfies the most demanding owner.

Ludowici tile resists the elements. Rain, snow and sun will not affect it. Time merely seasons the appearance, mellowing the hue and gently softening the texture.

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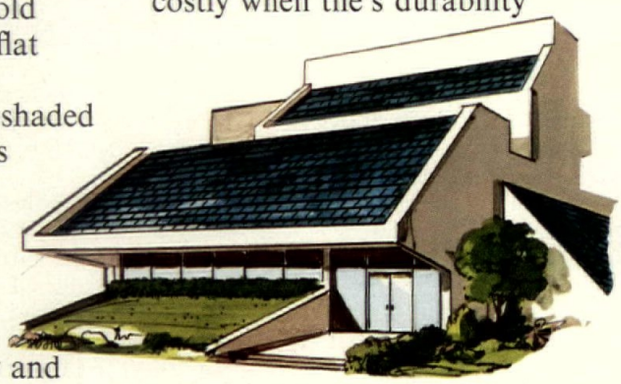

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CIRCLE 13 ON READER SERVICE CARD

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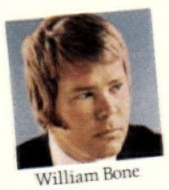

William Bone

"GE calls their computer system that keeps track of builder contracts, the Contract Register.

"It was a real help when we suddenly needed earlier delivery of kitchen appliances. General Electric rescheduled our deliveries and we got them in time.

"Now we've sold close to 550 condominium units, and the General Electric name on our kitchen appliances has the added benefit of saving us selling time in the kitchen. It's a name people know and depend on. And so do we."

On-Time Delivery. General Electric can get your appliances to you where and when you need them. We have 9 factories, 5 regional distribution centers and over 60 warehouses throughout the country. Your order is processed through the Contract Register, that records and updates your delivery requirements.

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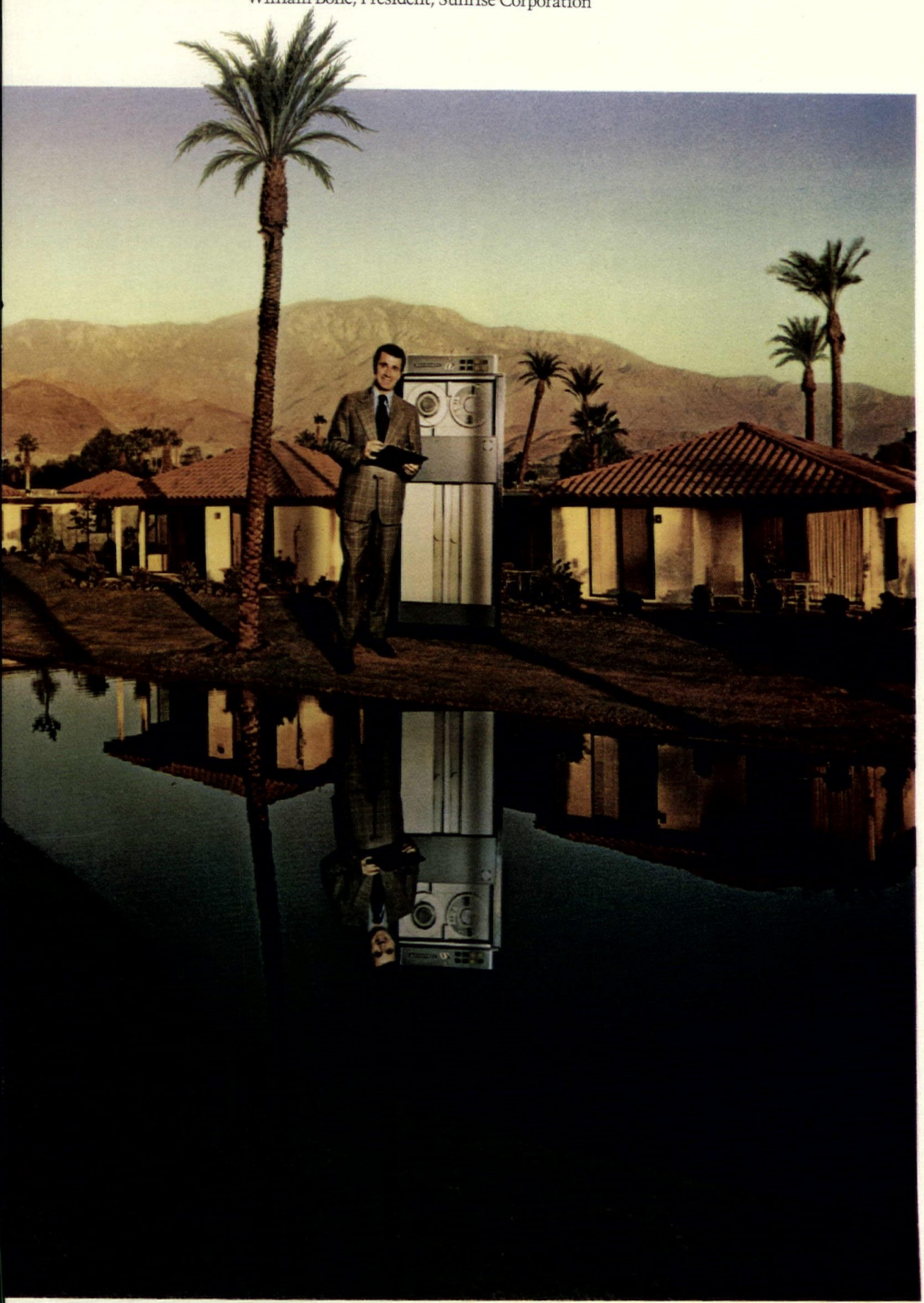
William Bone, President, Sunrise Corporation



How Alice-in-Wonderland financing led to UDC's default

Jackson E. Phillips, senior vice president of Moody's Investors Service, was speaking of the UDC.

"If you keep building and building before any revenue comes in," he said, "all you have to do to cut off that process is to remove the ability to borrow. And the market did that in December 1974."

The market had its reasons. Since the UDC default in February, there have been allusions in the press to cost overruns and poor management, and perhaps such problems did cause the banks and institutional investors who supported the UDC to lose their enthusiasm.

Lack of income. The investors, however, had other reasons to be nervous. For the UDC had long since plunged into a vast, long-term, "socially conscious" building program that included New York City's new town of Roosevelt Island *(see photo)*.

The program was long-term indeed. The UDC's current annual report projects a negative cash flow at least until 1979.

Borrowings. With no income, UDC has had to pay construction costs, overhead and interest on its proceeds, from new bonds issued in mushrooming amounts.

The last bonds floated were $225-million worth last fall, and the prospectus might well have given investors who bought this so-called 1974 Series C issue some food for thought.

The prospectus depicted a company whose solvency was utterly dependent on a quicksand of "constantly changing assumptions"—the words are those of the prospectus itself.

Another $900 million. "In addition to the above described bonds," the prospectus advised on page five, "UDC will be required to make additional long term borrowings of approximately $900,000,000 to finance . . . projects currently under construction, projects committed . . . and new communities. *Completion . . . is necessary in order to permit UDC to pay debt service on the 1974 Series C Bonds and all other borrowings.* During the first half of FY 1975 UDC will be required to issue up to $350,000,000 of notes or bonds . . . *There can be no assurance that UDC will be able, particularly under current market conditions, to make all required borrowings.*"

Roosevelt Island, UDC's planned $375,000,000 "new town in town," occupies former Welfare Island in New York City's East River. It is to have 5,000 apartments, schools, parks, electric (nonpolluting) buses and a pneumatic refuse-disposal system to banish garbage trucks.

The prospectus also conceded that UDC projects with blueprints for thousands of units needed subsidy money from the U.S. Department of Housing and Urban Development if they were to be viable. But President Nixon's housing-subsidy moratorium had already been decreed in January 1973, more than 18 months earlier.

Points of interest. There was also a little matter of interest.

The $225 million in Series C bonds would yield 8⅝% to 9⅜% in interest—all tax-exempt. Very nice; but the prospectus revealed that UDC, as of April 30, 1974, had $554 million in commitments to finance land and projects on which UDC would earn no more than 8%, even assuming an assist from HUD.

OBSERVER STARR
Explains rental finance woes

The new bonds, then, would lock in a long-term negative yield spread, or a built-in loss, of $3,687,500 annually.

And, the prospectus warned, another issue of $350 million would have to be floated within a year.

The C bonds alone would raise UDC's annual interest burden to about $64 million (and an overall rate of 7.1% on all bonds and notes). Another $350 million at 8¼% (not to say 9%) would add another $30,625,000 a year in interest costs—*if* the additional debt could be raised at all.

Rent control. Any investor concerned about what would secure his bonds and pay all this interest might have found that it would be principally mortgages on low- and middle-income rental projects in New York state.

Here's what Roger Starr, administrator of the New York City Housing Development Authority, thinks of that kind of security:

"All people who write mortgages on apartment houses in today's market are facing very severe problems . . . Nobody wants to pay a rent increase . . . A rent increase is the object of political attack." (Rent control is widespread and politically popular in New York, particularly among politically powerful middle-class renters.)

As New York mortgage holders know, rent-controlled income goes for fuel, payrolls and taxes first; it seldom stretches as far as the mortgage holder.

Anything else? What other security was there?

There was no stockholder's equity to draw on; only a "fund balance" of $4-million (against total liabilities of $1.07 billion).

How about New York state?

"The bonds," explained the prospectus in italics, *"are not a debt of the state of New York and the state is not liable thereon."*

So, back to that "moral obligation" for safety, with a new governor who was not tied politically to the bonds.

If you were a bank or investor, would you be inclined to test the strength of that moral obligation before going on with the next $900 million UDC was sure to require? Some would say "yes, I would." —H.S.

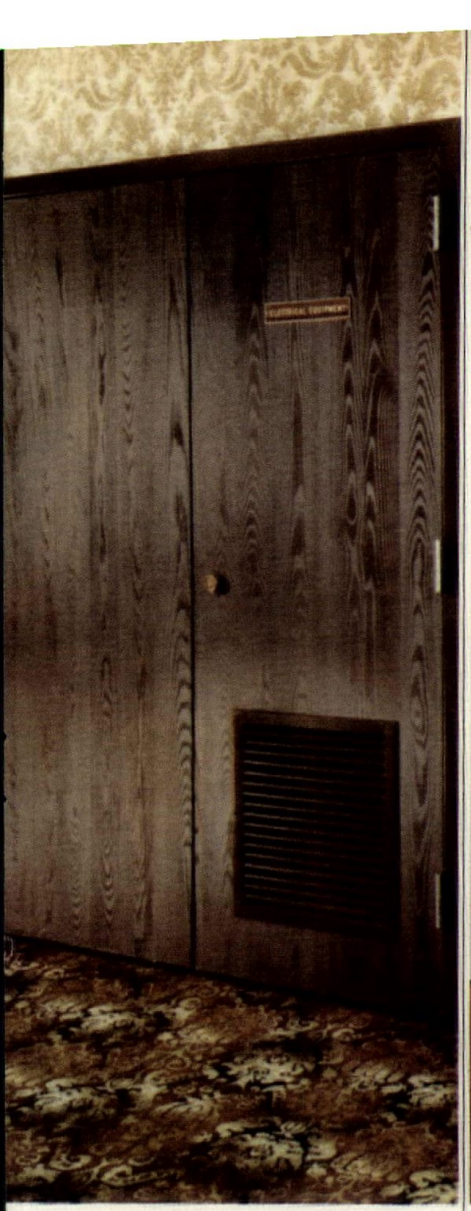
A gift of Sterling: City gives Home a Forest

Twenty-two thousand acres of prime real estate make a nice present. Just ask the management of Home Insurance Co.

The casualty insurer's parent, City Investing Co. of New York, has just revealed in its annual report that it made such a gift last year. The conglomerate transferred its Sterling Forest residential development in southern New York state to Home.

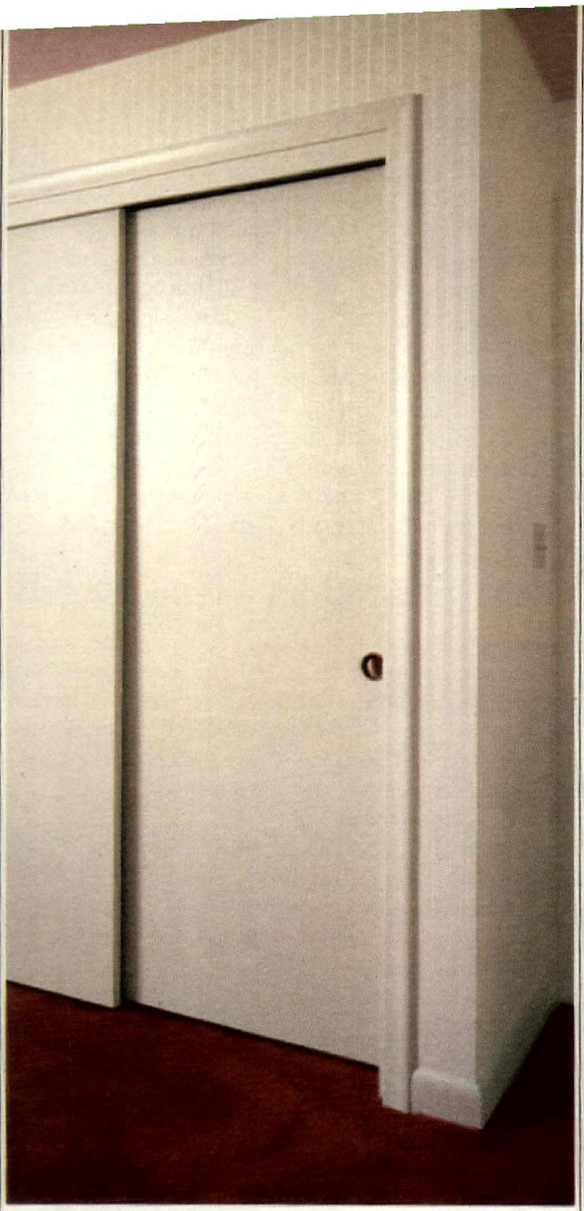
While the transfer was a gift, it was not made in the spirit of Christmas; the move bolsters the insurer's surplus position as reported to state insurance commissions. The surplus in turn affects Home's financial rating and the amount of new business it can write.

For the commissioners, Sterling Forest (it enjoys some fame as a recreational area) is carried now at its appraised value of approximately $60 million—although it continues on the parent's consolidated statement at book value of $30 million.



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, Ill.

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MASONITE® CORPORATION

Builders penalized in California's new coastal protection code

Residential development would have low priority under California's proposed Constitution for the Coast.

This preliminary coastal plan, just unveiled by the California Coastal Zone Conservation Commission, spells out in 400 pages its recommendations for protection of the unique qualities of the 1,072-mile coastal zone, which extends 1,000 yards inland.

Noting that the coast should not be treated as ordinary real estate, the commission said that conservation and public facilities should take precedence over private development, such as housing.

Restrictions. Among its findings and policies, the commission:

- Notes that high-cost apartments, condominiums, and motels force poor and moderate-income people away from the coast.
- Encourages development for visitors—resorts, restaurants and campgrounds.
- Says new developments must protect views of dunes, surf and coastal bluffs from public roads.
- Calls for private roads on headlands to be screened from view.
- Declares that development on canyon edges and hilltops must not be visible from canyon or valley floors.
- States that new residential projects must be provided with adequate parking spaces.
- Prohibits new developments from blocking seaward views from key public viewing points.
- Requires new development to be compatible with surrounding attractive areas, or enhance less-pleasing areas.

Areas for housing. The plan emphasizes that new development should be restricted, to the extent possible, to inland portions of existing coastal communities where public transportation and other services are already available.

"New development shall not be permitted to sprawl, project by project, into open space," the commission declared.

Because of dynamic changes taking place in social values and building technology, the commission found it unfeasible to establish specific design criteria. But it said a coastal agency, with design experts on its staff, and with advice from coastal communities, should provide design review for all public and private developments within the coastal "viewshed."

Special attention would be paid to scale, height and building materials; alteration of natural land forms by cutting, grading and filling; landscaping; view preservation; transportation and parking; and underground utilities.

Planning guides. The commission said the legislature also should require cities and counties along the coast to develop and implement design elements in their general plans.

The coastal agency would consider the cumulative impact of proposed developments. In small neighborhood areas, or in adjoining or nearby properties in undeveloped areas, which are threatened with rapid development, the area would be considered a single unit, and developers would be required to jointly prepare an over-all design plan.

Impact studies. Any large-scale new development in a rural area, or an urban development of greater density than its surroundings, would require an area plan. This would be prepared at the developer's expense, and would emphasize height, bulk and density, preservation of open space, "ocean breezes, views and public access."

Subdivision and development of waterfront-area properties larger than three acres, or more than 15 dwelling units per acre in suburban areas or 20 per acre in urban areas, would not be permitted until the developer prepared a detailed design plan showing that the development complies with coastal plan specifications.

Up to legislature. The 12-man state coastal commission and six regional commissions were established when Proposition 20, the controversial coastal protection initiative, passed in November 1972. These commissions were mandated to prepare the coastal plan, which will be submitted to the legislature next December, after public hearings and revision. The commissions go out of existence at the end of 1976, unless the legislature acts to retain them.

Under their permit authority, the regional commissions have received nearly 12,000 applications to build, have reviewed more than 10,000, and approved 95%.

This does not tell the whole story, because most permits are for single family dwellings or small developments. Some large developments have been approved subject to conditions to control density and beach access. Others have been exempted from the act, while many have been blocked on a regional level, and are being appealed to the state commission or through the courts.

—JENNESS KEENE
McGraw-Hill World News,
San Francisco

President gives up on a land-use bill

Democratic sponsors of federal land-use legislation insist they still intend to try to push a bill through this Congress despite the fact that President Ford had decided against supporting any bill in this field this year.

Senator Henry M. Jackson (D.-Wash.) and Rep. Morris K. Udall (D.-Ariz.) are cranking up for another attempt to move legislation. Both are announced presidential candidates. Jackson's bill is S 984, Udall's HR 3510.

President Ford tilted against submitting an administration land-use bill after his top advisers split over whether such a program should be run by the Department of Interior under Secretary Rogers Morton, a long-time political associate of the President, or by the Department of Housing and Urban Development.

Infighting. Former Housing Secretary James T. Lynn, now director of the powerful Office of Management and Budget, reportedly worked against those who wanted to make another try to enact land-use legislation run by Interior.

One Congressional source attributed the President's reversal to Lynn's belief that HUD itself should be the center of land-use planning. The source said the housing department "didn't want to lose any land-use authority to Interior."

Morton has been also arguing against an administration recommendation to Congress this year, however.

Jackson and Udall believe they have the votes to enact a bill similar to a measure that was killed in the House last year, but probably not enough votes to override a veto. Jackson is considering including his legislation as part of a measure on controlling the site of power plants and other energy facilities—a measure long sought by the Republican White House—as a way of making land use veto-proof.

DEL ANKERS

EX-SECRETARY LYNN
Still an influence in housing

Builder opposition. Land-use legislation had strong backing from President Nixon. But at the last moment he heeded the urging of conservative Republicans and dropped his support for the bill. It died.

The opposition to land-use legislation was led by the U.S. Chamber of Commerce and by the real estate and housing industry. Many local officials also opposed the legislation as a threat to their authority to control land use through zoning.

The Mortgage Bankers Assn., however, is backing Udall's bill. "We feel (it) will . . . encourage the states to move realistically in land-use planning," the MBA told congressional committees.

Udall, among others, believes that the election of freshman Democrats has improved the program's chances in the House. The Senate has passed such legislation several times by substantial margins. —D.L.

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NORRIS INDUSTRIES

Florida girds for annual fight over protecting condominium buyers

The Florida legislature's spring session is scheduled to end early in June, and it is certain that the final days will see fierce lobbying and debate over reform of the state condominium law.

It has been thus at each session for four years. It will be no different this time. The issue once again revolves around the land and recreation leases that condominium supporters never envisioned when they helped write the enabling law in the early 1960s.

Nobody saw the possibility of a developer maintaining management control over thousands of occupied units in a phased development, or the possibility of monthly maintenance charges based on ever escalating costs controlled by sweetheart contracts, or the possibility of million-dollar annual windfalls from the leases on swimming pools and cardrooms.

Call for new rules. On the eve of the session that began April 8 this year, Attorney General Robert Shevin called for guidelines to keep developers of condominium projects from reaping "unconscionable profit windfalls."

Shevin predicted that half of Florida's residents would own condominium units by 1985.

"Since Florida housing might soon become dominated by the condominium industry," Shevin said, "we should move quickly to get some kind of judicial guidelines and case law on the books to prohibit unconscionable profits and restraint of trade by the developers past, present and future."

Court action. Shevin has already gone into state court to attack the legality of recreational lease, insisting it is unfair business practice and a restraint on trade.

Shevin says control over leases and management contracts makes it impossible for outside firms to compete for the business and thus penalizes condominium buyers. The court action will take at least one year, but Shevin said it could provide relief for the tens of thousands of condominium owners entangled in unfair leases.

Shevin will also seek legislation requiring enforceable performance bonds to protect buyers against the loss of down payments, a problem that has arisen in recent months. Developments go unfinished because rising costs bankrupt the builders.

Battle lines. The phase developers know they have a battle coming up in the legislature. These are the large developers who still use land and recreation leases despite the bad publicity. (In 95% of the real estate advertising throughout the state, the biggest and blackest type is used to proclaim the absence of land or rec leases.)

At a hearing in Fort Lauderdale March 25, spokesmen for condominium owners and builders debated their differences for the benefit of HUD officials, and Florida's Senator Lawton Chiles and Congressman William Lehman.

Builders' stand. The developers' point of view was that federal legislation would only make things worse. Said William Horvitz, developer of Hollywood Hills:

"We don't need new federal regulations that will add red tape and bureaucracy. The marketplace decides what sells and what doesn't. Today it has decided that rec leases don't sell. There have always been complaints between landlords and tenants, so why do we need legislation for condominiums."

Robert Shapiro, a Miami lawyer, defended the rec leases as a way to create residual revenue for developers so they will risk the money required to build elaborate recreation facilities that help attract customers. Without the rec leases, Shapiro said, condominium prices would have to be that much higher and sales experience has shown people will not pay the front money for amenities.

Owners' side. Ernest Samuels, representing the Point East Owners Association of Miami, testified for legislation prohibiting management leases—especially those tied to any cost-of-living index. He said older people coming to Florida on fixed incomes are being victimized by escalating monthly charges that are not clearly shown in 100-page condominium documents.

Point East is a sensational case. The residents went to court to get the original developer out of the management of the complex. They still pay him a large annual fee for doing nothing, but they now pay less than they had been paying for the management.

One legislative aim this year will be some sort of *ex post facto* relief in cases where it can be demonstrated that management fees and rentals are excessive when compared with the marketplace. The case will be made that the developers had a fiduciary relationship with their customers in the organization of condominium associations.

Unsold inventory. Beyond the legal battle is the cold fact of bankruptcies and unsold inventories of condo units in both the Miami and Fort Lauderdale areas. Miami's surplus in late March was estimated at 7,000 compared with only 2,700 that time a year ago.

In neighboring Broward County, the situation is worse. Inventory was more than 13,000 at the height of the winter tourist season, more than double the same time in 1974. The surplus of units is reflected in Sunday real estate advertising.

Free Cadillacs. The developers are using the automakers' rebate offer with the reduction running in the range of $6,000 to $8,000 on units in the $40,000 bracket. The most unusual ad appeared in late March, when Renaissance Condominium on the oceanfront in Pompano Beach offered a new Cadillac as standard equipment in any apartment priced between $64,000 and $125,000.

Century Village, one of the phase developments, advertised that all condominiums sold during April would carry a no-questions-asked offer to buy the apartment back after a year if customers were not satisfied.

—FRED SHERMAN
McGraw-Hill News, Miami

Condominium probe halted in secret

A nationwide investigation into the abuse of consumers in the sale and management of condominiums has been halted by the Federal Trade Commission on a 3-2 commission vote taken in secret.

The vote, on March 27, had the effect of pulling staffers off the investigation the FTC started 18 months ago and putting them on matters the commission considered more pressing. The change had been recommended by the commission chairman, Lewis E. Engman, who had until that time cultivated a pro-consumer image.

One reason Engman sought the shift was, reportedly, that Congress had directed the Department of Housing—and not the FTC—to look into the abuses in condominium sales. The HUD report is due August 22.

Protest in Congress. The FTC's action triggered an immediate protest in Congress from such advocates of condominium-sales regulation as Senator William Proxmire (D.-Wis.) and Rep. Benjamin Rosenthal (D.-N.Y.).

"The commissioners, acting behind closed doors, voted 3-to-2 to cut off funds for a Bureau of Consumer Protection project to launch major test cases against the most blatant condominium abuses," Proxmire contended. He said the abuses include 99-year recreation leases, self-dealing management contracts and deliberate understatement of maintenance charges.

Sources close to the commission said some members of the staff, including Director J. Thomas Rosch of the consumer bureau, had urged continuation of the investigation. Rosch declined to comment.

Prosecutions. In all likelihood, the commission will eventually come up with rules spelling out acceptable practices in condominium sales and management. That is a time-consuming procedure, however. One shortcut would be to single out particular developers and file complaints claiming their sales agreements are unfair, thereby signaling other companies what kinds of provisions might cause them troubles.

The complaint technique was used recently against Horizon Corp. and Amrep Corp., both recreational land developers (*see page 24*). No specific condominium cases had been recommended to the commission at the time the condominium inquiry was curtailed, however.

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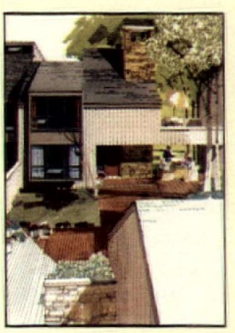

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Horizon and Amrep accused by FTC of selling worthless homesites

The Federal Trade Commission has taken on two more giants of the land-development industry, following its successful action last year in issuing a sweeping consent decree against GAC Corp. of Miami [NEWS, May '74].

The latest targets are Amrep Corp. of New York City and Horizon Corp. of Tucson, Ariz. In separate complaints, the two are accused of defrauding thousands of consumers since the 1950s by selling them virtually worthless land as homesites.

The charges are directed against deceptive advertising and sales practices that J. Thomas Rosch, director of FTC's Bureau of Consumer Protection, says brought Amrep $100 million from sales of vacant lots over the calendar years 1969 through 1973, and Horizon more than $200 million for the fiscal years 1972 through 1974.

Separate cases. Rosch said the two companies have sold lots to 215,000 since the 1950s. Most sales were in New Mexico, but some were made in Texas, Missouri and Florida. Many of the lots were, according to FTC's complaints, virtually worthless as investments and useless as homesites. The lot prices ranged from $2,000 to $5,000.

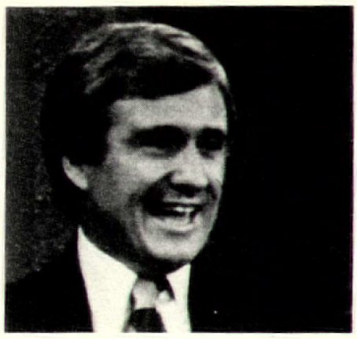
While the FTC announced the two cases simultaneously, Rosch pointed out that the companies are independent and that there is no claim that they acted in concert. The cases will be dealt with independently—Horizon by FTC's Bureau of Consumer Protection under Rosch in Washington and Amrep by the FTC's regional office in Los Angeles.

Defense. Horizon's president, Sidney Nelson, said the company would contest the complaint in the commission's administrative proceedings and in the federal courts if necessary. Nelson said he was "confident that the hearing will demonstrate the value of Horizon's property offerings and that its business practices are entirely proper."

Amrep, in a statement, said it "condemned . . . the publication of the charges and their trial by press conference before we have been served this notice and been allowed an opportunity to prepare a reply."

The statement said the corporation believed it had "complied with every applicable federal, state and local law and regulation." The release also alluded to 5,500 people living in "fine homes, condominiums and apartments" at Amrep's Rio Rancho Estates near Albuquerque and said that "growth is even more spectacular" at its Silver Springs Shores project near Ocala, Fla.

FTC's ROSCH
A critic of Horizon . . .



TV's GRIFFIN
. . . and a promoter

A spokesman for Amrep added: "We don't think any of this (FTC complaint) applies to us. Every bit of land Amrep sells is homesite land . . . we think we will win before the commission."

Properties. Rosch said the FTC concentrated on three Horizon properties in which "the difference between the fair market value, according to our investigation, and the sales price of the lots is the greatest." They are, he said, Rio Communities, which includes 250,000 acres outside of Albuquerque; Horizon City, 87,000 acres outside of El Paso, Texas; and Waterwood, 25,000 acres north of Houston. The complaint also names Paradise Hills, 13,000 acres north of Albuquerque.

The main Amrep properties involved are Rio Rancho, 91,000 acres near Albuquerque; El Dorado, 6,000 acres near Santa Fe, New Mexico; Silver Springs Shores, 18,500 acres near Ocala, Fla.; and Oakmont Shores, 3,500 acres in the Missouri Ozarks.

The FTC's formal complaints against both companies made it clear that, if the staff is successful in proving its charges before the five-man commission, it intends to go to federal court for the first time to seek refunds for losses suffered by consumers. The cases are the first FTC has brought since being given new legal authority, which became effective in January, to go into court to seek redress—including refunds—for defrauded buyers.

Accusations. The complaint against Horizon alleged that the company:

- Falsely claimed the purchase price for its lots was "all-inclusive," although almost all lots except those at Waterwood had no paved roads or sewer systems.
- Misled purchasers with promises that all lots were within a "self-contained and fully developed" community, although the amount of likely construction was actually insignificant.
- Used television's Merv Griffin and film actor Leif Erickson to promote properties as satisfied customers, although both got Horizon land as a gift rather than by buying it as customers.

The complaint against Amrep also alleged misrepresentation in statements about development sites, and it charged that the company exaggerated the economic growth potential of Rio Rancho Estates.

Correctives. Under the orders proposed by the FTC, Horizon and Amrep would have to halt their alleged misrepresentations and allow cooling-off periods in which contracts could be canceled.

The companies would also have to include bold-face warnings in sales contracts. For example: "You should not consider this purchase as an investment."

Rosch said the FTC staff has several more land-fraud cases under investigation and that he expects "proceedings similar to this to be forthcoming." The Horizon case had been under investigation about four years, he said, and that of Amrep for about two years.

Killearn case. In an unrelated case, Killearn Properties, a land developer with headquarters in Tallahassee, Fla., was charged with filing false registration statements, annual reports and proxy material with the commission in 1972 and 1973.

The complaint, filed in Federal District Court in Tallahassee, also named three Killearn officers. They were Chairman Mallory E. Horne, who resigned last year as president of the Florida Senate to run unsuccessfully for the U.S. Senate; President J.T. Williams Jr. and Vice Chairman William J. Boynton.

Killearn's shares have been suspended from trading on the American Stock Exchange.

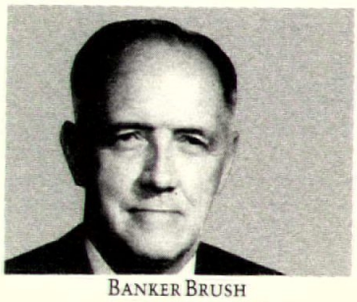
Williams, speaking for Killearn, said the SEC action "relates solely to highly technical reporting requirements" and "in no way involved a material transaction of the company."

Savings bankers naming new president

Harry F. Brush, president of the $343-million Eastchester Savings Bank in Mount Vernon, N.Y., has been nominated as president of the National Association of Mutual Savings Banks. His nomination is to be approved by the membership during the association's 55th annual conference in Boston May 11-14.

Brush will succeed Kenneth L. Birchby, president of the Hudson City Savings Bank of Jersey City, N.J., as chief spokesman for the trade organization of the $111-billion savings bank industry. There are about 480 savings banks in the 18 states that permit them.

Edwin J. McWilliams, president of the Fidelity Mutual Savings Bank of Spokane, Wash., has been nominated as vice president of the association. Donald L. Thomas, president of the Anchor Savings Bank of New York City, has been named as treasurer.



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Max Karl pays Maggie Mae's $28-million tab, sends her packing

What costs $28,381,000 and hurts a lot?

For MGIC Investment Corp., it's the decision to phase out its subsidiary, MGIC Mortgage Corp., set up three years ago to compete with Fannie Mae as part of a grand strategy for driving FHA entirely out of the mortgage-insurance field for unsubsidized middle-income housing. (The FHA is reeling but remains in possession of the field).

The subsidiary's president, William B. Ross, is a former director, executive vice president and chairman of Fannie Mae (or FNMA, the Federal National Mortgage Assn.). He came over to Milwaukee-based MGIC in 1972 to organize and operate the new venture.

Hostile environment. But Maggie Mae, as the MGIC seller of mortgage commitments and buyer of mortgages was known, fell prey to the money-market disorders of recent years.

Maggie, according to MGIC founder and president Max H. Karl, "was predicated on historical spreads between short and long-term bond and mortgage interest rates and orderly capital markets . . . Its financial results have been the victim of a prolonged inverted yield curve and a severe disruption of our nation's money markets. Because of these economic uncertainties, it is in the best interest of MGIC Investment Corp. to avoid such risks in the future."

Negative spread. MGIC Mortgage was profitable from its start in March 1972 until about June 1973. But by October 1973, interest rates had turned sharply against the company: Maggie's effective cost of money (even adding in its equity capital) had risen to 8.45%, while its mortgage portfolio was yielding only 7.79%.

The company began pulling out of the marketplace a year ago, when the prime rate was vaulting toward 12%.

Maggie Mae made a decent splash in mortgage markets during its short life-span, though: It found financing for 30,000 single-family home mortgages and accumulated a portfolio of $664 million by the end of 1974, built on a net investment by MGIC of $145 million.

Of the $28,381,000 loss, $23 million is a reserve against liquidation of the portfolio; the remainder was Maggie Mae's 1974 operating deficit. The total more than wipes out last year's earnings from MGIC's mortgage-insurance operation. The overall 1974 loss for MGIC was $1,956,000 ($0.09 per share) against a 1973 profit of $43,151,000 ($1.95 per share).

MGIC's Karl
The risks were too great . . .

Maggie Mae's Ross
. . . so, good-by to his baby

GAC's discount. The big MGIC write-down was not the only problem among companies concerned with housing finance.

Miami-based GAC Corp., one of the biggest land-sales companies, did manage to report black ink for 1974 (down 11% from 1973, to $7.4 million from $8.3 million). But revenues plunged 37% ($113 million versus $181.3 million) and installment land sales plummeted 69% (to $19.5 million from $63.5 million.) That's down considerably from the 1970 peak of $128.7 million.

The trouble is, GAC has $43 million in 12% debentures coming due Nov. 15, and needs money to retire them.

Prepayment discount. To raise the funds, the company is offering its thousands of customers a hefty 20% discount for prepayment. Some $236 million in outstanding land-sales contracts are involved. Noting that similar discount offers were successful in the past, the company hopes to raise at least $15 million this time.

Even at that, the company would need another $8.6 million to $10.8 million of outside financing. The auditors Peat, Marwick, Mitchell & Co. declined to express an opinion about the company's ability to obtain the needed financing in today's money markets.

But assuming that hurdle is managed, the auditors also noted in GAC's annual report, the company still has to redeem another $43.7 million of 11% senior debentures in 1977, and that "will depend largely upon the maintenance of positive cash flow and profitability in the years ahead."

Ervin's exit. Ervin Industries of Charlotte, N.C., the real estate operation of American Cyanamid, is going the route of Maggie Mae; its assets are being disposed of and the operation written off to the tune of $14.6 million, net of taxes.

And then there's National Homes Corp. The Lafayette, Ind., home manufacturer absorbed a $20 million loss for 1974, nearly twice the company's $12.6-million drubbing in 1973, on a 40% drop in volume.

Lesser woes. Another, but relatively more fortunate, victim of hard times is the McCarthy Co. of Anaheim, Calif.

"The depression that spread through the housing industry in 1974," reported President W.N. Kennicott recently, "caused the McCarthy Co. to incur its first operating loss since 1967"—a $2.2-million deficit, down from 1973's fat half-million-dollar profit.

The loss includes a reserve against possible future losses, much of it involving the company's high-rise condo project in Alexandria, Va.

Centex, too, is feeling the evil times: Wall Street analysts have been figuring that the big Dallas builder's earnings will be down 50¢ a share from the prior fiscal year's $1.17. From its once-upon-a-time high of nearly 39, Centex stock has plunged to 4 but has traded recently at 9¾.

Biggest loss? CNA Financial Corp. of Chicago appears to have the dubious distinction of reporting the biggest 1974 loss of all on homebuilding operations—$124.4 million from its subsidiary, The Larwin Group. Besides suffering massive operating losses at Larwin, the company wrote off its entire investment in the troubled homebuilder. If it survives, once-national Larwin will hereafter be confined to California and southern Nevada.

And CNA, an insurance holding company 51%-owned by the tobacco conglomerate, Loews Corp., has other troubles: Including Larwin, it ran a deficit of $216 million last year. —H.S.

Major N.Y. condo conversion blocked

The New York state attorney general's office has just forbidden the apartment developer Harry B. Helmsley to convert the remaining two-thirds of his Parkchester development in the Bronx to condominiums. He is well on the way to converting 4,000 of the 12,000 units.

The recent decision has wide implications for Helmsley in New York City and for other converters in New York state. Helmsley owns Tudor City in Manhattan and the Fresh Meadows complex in Queens, and he had been expected to convert both had he won a favorable ruling on Parkchester.

Tenant opposition. Last year the New York legislature passed a law that required a converter to gain approval of 35% of his tenants before he could even offer an apartment for sale in a rental building. Helmsley did not have 35% approval, and the attorney general held the law applicable to Parkchester.

The law is being challenged in a court suit backed by the National Association of Home Builders, but a ruling is two years away.

Second setback. This is the second time Helmsley has been deterred on a major conversion in New York City. An effort to buy Stuyvesant Town and Peter Cooper Village in Manhattan foundered on tenant objections to any change in the rental status for the 11,000 units in the two developments. They are owned and operated by the Metropolitan Life Insurance Co., as was Parkchester before Helmsley bought it.

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How electric charges propel tenants into 'utilities-paid' units

Atlanta apartment dwellers are fleeing total-electric complexes in which they must pay their own bills in favor of those where the bill is included in the rent, according to the chairman of the Atlanta Apartment Council.

C.D. (Duke) Ellington, president of Ellington-Floyd Management Co., which manages 3,750 units in Atlanta and 250 in Jacksonville, Fla., says the behavior of Atlantans is not atypical of tenants in other cities where electric rates have spurted.

A spokesman for the Georgia Power Co. says its average customer used 806 kilowatts of electricity and paid $17.91, including fuel-adjustment charges, in February 1974. The same amount of electricity cost $22.82 in February 1975.

Study in contrast. For an example of what is happening, Ellington cites two neighboring all-electric complexes in Cobb County (Marietta), Ga., with comparable two-bedroom units. One, with utilities furnished, rents for $230-$240 and has a good occupancy rate. The other, in which utilities are not included, rents for about $137 and is in difficulty. Both projects have the same management.

Renters would fare better by paying their own electric bills, Ellington says, because management has to add an "abuse" factor to the rent along with the bill. But the tenants apparently prefer to have the utilities included in their bills because they can lock the management into a rate through a year's lease.

Ellington says a 440-unit total-electric complex he manages had a $23,000 electric bill in January, up $4,000 over the preceding month, and $10,000 more than two months earlier. These rates do not reflect increases in utility rates precisely, because they coincided with the onset of colder weather.

Change in billing. A check of several complexes listed as all-electric in the Atlanta yellow pages found two that were changing their approach toward electric bills. At one, a 280-unit complex, electricity was included in the rent as of February 1 because of tenant complaints. The resident manager said "a lot" of tenants' bills doubled and a few trebled in the December to January period. At the other, a 216-unit complex, all new rentals since February 1 are required to pay their own bills.

Ellington advises against shifting the bills to the tenants, however, because he feels that the tenants don't want to have to pay the bills themselves. He argues that more experienced managers are "going to think three times before shifting the bill to renters" in an apartment market that appears to be shrinking in the face of economic downturn. The Southeast, according to most reports, is the area hardest hit by the recession.

Vacancy rates. The Atlanta apartment market has been over-built for some time. Ellington says the vacancy rate on the city's south and southwest sides is about 25%. On the north side, generally considered the more desirable area, the vacancy rate last fall was about 15%. Now, according to Ellington, it is probably about 20%.

In Columbia, S.C., rates for 895 kilowatts, the average consumption, have gone from $19.42 in February 1974 to $22.49 in 1975. John C. Elkins, executive director of the Homebuilders Association of Greater Columbia, says that the situation has not reached that of Atlanta but, that, for the first time, he is seeing apartments advertised as "utilities furnished."

RISE IN ELECTRIC RATES
Ten top cities
1973 to 1974

Atlanta	19%	Detroit	17%
Boston	33%	Los Angeles	22%
Chicago	9%	New York	37%
Cleveland	29%	Pittsburgh	17%
Dallas	9%	Washington	25%

Source: U.S. Dept. of Labor

In Raleigh, N.C., the bill for 905 kilowatts rose from $19.31 in February 1974 to $28.73 in February 1975. One apartment executive there says that, of two all-electric complexes under his management, one, with slightly larger units and offering the inclusion of utilities, rents the faster. He attributes the speedier rentals to the inclusion of utilities.

Sharp rises. The Jacksonville Electric Authority uses mostly fuel oil to generate current, and electric rates have jumped drastically since the oil shortages. The customer who uses 850 kilowatts pays $36.85, including a 10% tax. Executive Director Arnold Tritt of the Northeast Florida Builders Assn. says his own electric bill has increased from about $35 eighteen months ago to $93 in a recent month. Apartments that rent with all utilities furnished are becoming a thing of the past, he says.

With most of the city's apartments totally electric, owners and managers are reducing rents and moving, even at costs of $75 to $155 per unit, to put tenants on individual meters. Tritt says the change often triggers moveouts but that there is quick recapture. He also observes that the 12% vacancy rate in the city is higher than a year ago and that amenities in the current market there seem to mean little. The highest vacancies are in the high-rental units.

Utilities' stand. Whit Ward is secretary-treasurer of Ward Properties in Tampa, Fla., which owns 1,700 apartment units in Tampa and Orlando. Ward says a $100-per-unit rebate was offered by the Tampa utility to builders of all-electric projects as recently as a year ago. Now the rebate is gone and hook-ups cost $200.

Ward estimates that 99% of his units are now individually metered, with about the same number totally electric; and he says tenants are fully accustomed to paying their own utility bills. Ward says individual billing is so common that when utilities were included in the rents for a complex in Orlando, careful explanations had to be made to prospective tenants.

Ward finds that tenants are increasingly sophisticated about the costs of energy. His firm can even use as a marketing ploy the quality of insulation in a complex because over the last six months tenants have begun to ask detailed questions about it.

Summary. Two common themes running through virtually all interviews on electric rates were that tenants were better off paying their own utilities bills because of the control it would give them, and that abuse accompanies the inclusion of energy charges into the rent. The Federal Energy Administration apparently concurs, estimating that buildings with one meter use 20% to 40% more electricity than those in which tenants are individually metered. The FEA has awarded a six-month, $65,000 contract to Midwest Research Institute to determine the differences in the two meter set-ups and make policy recommendations.

—STAN FISHER
McGraw-Hill News, Atlanta

NAHB kicks off national home-sales drive

The National Association of Home Builders is conducting a coast-to-coast campaign to promote the purchase of new homes.

"After so many months of depressing news about the housing situation, the public must be made to realize that conditions are changing—that mortgage money is now available, interest rates have come down from their peaks and there are many housing bargains to be had," said J.S. (Mickey) Norman Jr. of Houston, the NAHB's president.

Advice to chapters. Norman called on NAHB's 600 local and state affiliated associations to join in a concentrated marketing effort in April, which he designated "New Homes Month—Buy Now," to dispose of the large inventory of unsold new homes. Thousands of new housing units, including condominiums, remained unsold during the past two years of tight money and high interest rates resulting from the administration's anti-inflation monetary policies.

Sales kits. The thrust of the campaign is through local effort in local markets. The NAHB prepared and made available to its affiliates a voluminous kit full of information to aid the homebuyer in making his decision. It included figures to show that would-be buyers lose money by delaying a purchase. Others explain the tax advantages of home owning, and provide basic information to assist new homebuyers. Suggested local newspaper ads and radio spots and other promotional materials are included.

Consider Sears kitchen clean-up trio. It promises the freedom women want.

Women respond to the dishwasher, disposer, and compactor—the three appliances that promise them a quick exit from the kitchen after meals.

With Sears Kitchen Clean-Up Trio, you can offer: Kenmore undercounter dishwashers featuring a 2-level wash system that cleans dishes and utensils in most every conceivable loading position, plus insulation to reduce operating noise; Sears garbage disposers, with continuous feed; and free-standing or undercounter Kenmore compactors that turn messy trash into tidy bundles.

Consider Sears Kitchen Clean-Up Trio, for the Sears quality, Sears dependability, and Sears service your prospects are sold on already. Send coupon now.

Here are 10 good reasons to consider Sears

1. Single source for appliances and many building products. **2.** Product leadership. **3.** Dependable service. **4.** Contract sales specialists. **5.** Value/price. **6.** Kitchen planning available. **7.** Delivery to your schedule. **8.** Strong brand recognition. **9.** Product quality. **10.** Over 88 years of consumer satisfaction.

OK I'll consider Sears Contract Sales

☐ Send brochure ☐ Have Contract Specialist call
☐ Send address of nearest Contract Sales office

Name

Position

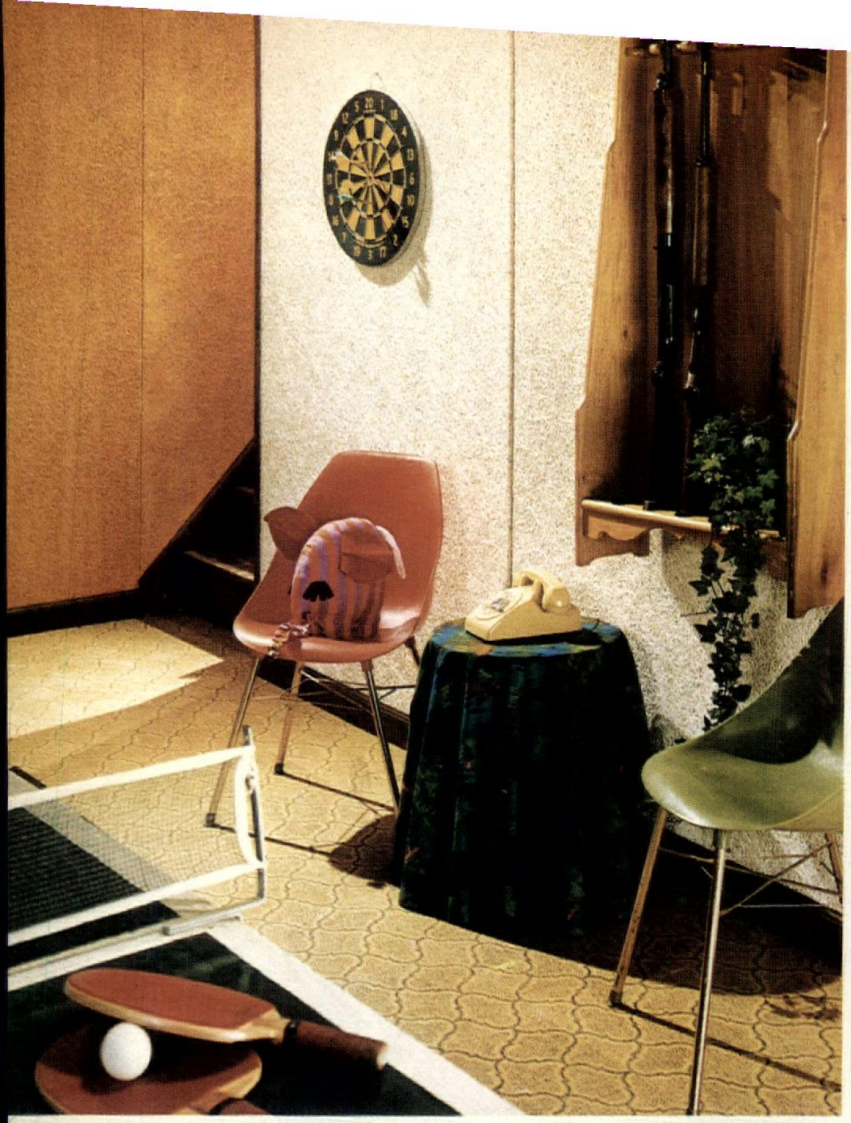
Firm

Address Phone

City State Zip

Dept. 733G, Sears, Roebuck and Co.
Sears Tower, Chicago, Illinois 60684

35-H&H-575-TRIO



The Tectum environment:
warm, quiet, hospitable.

Sounds like a nice place to live and work? It is. That's why successful builders are using this remarkable structural wood fiber product as roof deck, modular wall units, interior panels and partitions in buildings across the land.

Tectum keeps the indoors in, the outdoors out.

Tectum® paneling is made of long wood fibers bonded in a special process with an exclusive, inorganic binder. These panels are lighter than other similar products in this field, come in a wide range of standard sizes and are easily installed with ordinary hand tools. No other single product combines the acoustical and wear resistance properties of Tectum.

Tectum stays on top of things.

Designers and builders take note—A variation of regular Tectum, called Tectum II, is an unusually effective insulation material with an integral layer of urethane insulation. Tectum II® roof panels permit the application of a variety of roofing systems. Tectum II integral wall panels are covered easily on the exterior with textured paneling or applied stucco finishes.

Don't like the way things look? Change them.

Tectum is ideal for remodeling commercial or residential interiors. It's a good insulator, provides a tough, impact-resistant surface, comes in a variety of sizes and thicknesses and works as wall or ceiling panels.

Tectum revives a lost art—silence.

Tectum has a noise reduction coefficient that ranges from .45 to .75 and is the answer to a variety of sound control problems. Although the natural look of Tectum is most attractive, it can be spray-painted any color with an alkali-stable flat latex paint without affecting the acoustical properties.

We're gypsum, and then some.

Gold Bond®
BUILDING PRODUCTS

CIRCLE 31 ON READER SERVICE CARD

Gold Bond has prepared informative literature on Tectum, plus a 15-minute film specifically designed for the interests of larger builders and developers.

To receive the literature—or schedule a special film showing for your firm—please fill out the form below and mail to:

Gold Bond Building Products
Division of National Gypsum Company
325 Delaware Ave., Buffalo, N.Y. 14225
Attn: Mr. L. G. Poole, Advtg. Manager

☐ Send me literature only. ☐ I'd like to see the movie, too.

Your name_____

Firm name_____ Type of firm_____

Address_____

City_____ State_____ Zip_____

Phone number_____

HH-55T

Kaufman & Broad: It was a very bad year, but hardly fatal

Kaufman & Broad published a splashy annual report last year with a bulky Form 10-K bound in as the financial statement and a cover photo in color showing the sun going down behind a K&B home in France.

This year, the sun has set for K&B and the industry alike, and the company's latest annual report is a fitting chronicle of the results. (The K&B year ended Nov. 30.)

The cover is a suitably gothic black and white. The contents are slim and the 10-K is absent.

The big turnaround. The financial results for fiscal 1974 are also rather gothic: a $67-million reversal for the company's pretax results in a single year. Here are the gloomy details:

- Housing sales dropped 14%, from $264 million to $228 million.
- Overhead rose. Marketing expenses went up $4.5 million as the company tried to coax in reluctant buyers. Customer-financing costs rose $2.8 million and interest expense $5.4 million thanks to the money market. And inflation pumped up G&A costs $3 million despite the reduced sales volume.
- Altogether, pretax operating profits dropped $4.7 million—before extra charges.

Housing loss. It's the writeoffs that really hurt, however—$41.6 million *in toto*. The largest item was a $15.4-million inventory write-down, and there were also $8.2 million from the company's West German subsidiary (where K&B was heavily victimized by vendor fraud) and a $5.6-million loss on the sale of a recreational-land-sale venture, as well as a half-dozen other assorted million-dollar and multi-million-dollar items.

Including the writeoffs, there was a $36.8-million pretax deficit on housing operations for the year, in contrast to a $30.2 million pretax profit in fiscal 1973.

On the other hand, things looked a little less black than at the 1974 nine-month mark: the net after-tax deficit of $16.9 million reported at that time [NEWS, Nov. '74] got no worse, thanks to tax credits and Sun Life income. The year's loss was precisely $16.9 million.

Straight talk. The company discussed its first red-ink year in stark and candid terms for its stockholders—none of that "1974-was-a-year-of-challenge-for-your-company" variety of thing. Baring the breast may or may not have helped the corporate image, but it didn't hurt K&B stock, which had fallen to 2¼ in September (that's 1½ times 1973 earnings). It has since rallied to 8 and a fraction.

This threefold gain looked pretty good, even next to the reassuring 100% jump in the same period for HOUSE & HOME's index for homebuilding companies (which, by the way, was nudged upward by K&B's gain).

Like many another builder, K&B is not out of the woods—its debt-equity ratio weakened noticeably, and an accounting change obscures an earnings decline for Sun Life. But the annual report gives the definite impression that the worst is over.

This despite the realization of its prediction of a poor first half—the company took a first-quarter loss of $590,000 as compared to a $3.7-million profit for the 1974 first quarter. The unhappy result was attributed to a drastic falloff in land and housing sales and a $2-million increase in interest costs in contrast with those of the like period a year ago.

Optimism. On the other hand, hope springs eternal, especially in annual reports. This report includes a statement of faith:

"The size of latent demand is not a problem . . . Latent demand for shelter is greater than at any time in history."

Takeover insurance. The K&B management seems to feel that an attempt at a corporate takeover is a realistic enough risk to consider.* The proxy statement accompanying the annual report asks the stockholders to require a virtually unattainable 80% majority to remove any K&B director "without cause."

The incumbent officers and directors of K&B already own or control more than 16% of the shares outstanding, almost enough to block an 80% vote by themselves. In addition, they now hold enough unexercised options to approach 19%.

Both percentages were boosted by their decision last year to have K&B buy up (for $7.9 million) 1,034,000 of its own shares, despite its red ink.

*So does Del E. Webb Corp. (Phoenix); its directors propose to increase their number from six to nine and stagger reelections over three years as an obstacle to any change in control.

New Jersey's zoning laws upset

The New Jersey Supreme Court has just ruled that municipalities may not use zoning to exclude low- and moderate-income housing.

Moreover, the court required municipalities to take "positive action" to rewrite any existing zoning that has that effect.

The court affirmed that a municipality, in acting on zoning, must consider the general welfare—including housing needs of the poor and elderly—of the region in which it is located.*

The ruling applies only to New Jersey, but observers believe it could have wide impact in other states.

Many restrictions. The defendant, the growing Camden-Philadelphia suburb of Mount Laurel, had zoning rules that, the court found, were aimed at attracting high tax ratables and discouraging low-income housing or high-density development. These rules specified lot areas and widths, floor areas and dimensions, and an industrial zone that was far in excess of foreseeable needs.

The zoning was sophisticated; it permitted cluster housing, but with restricted densities. Four PUDs were permitted, with multifamily construction allowed, but there were restrictions on the number of bedrooms and on the number and ages of permanent residents (school-age children being heavily discouraged). Amenities and developer "contributions" were also required, and these increased prices and rentals.

Taxes in mind. There was housing for the elderly but it was hedged with restrictions that, the court felt, kept out all but the relatively affluent.

"There cannot be the slightest doubt," the tribunal ruled, "that the reason for this course of conduct has been to keep down local taxes on property. . . ."

The court rejected low taxes as a justification for these practices. It held: "Housing is so important and of such broad public interest that . . . the obligation arises for each (municipality) affirmatively to plan and provide, by its land-use regulations, the reasonable opportunity for an appropriate variety and choice of housing. . . . (This includes) low- and moderate-cost housing, to meet the needs, desires and resources of all categories of people who may desire to live within its boundaries. Negatively, it may not adopt regulations or policies which thwart or preclude that opportunity."

Lawyers' delight. The New Jersey ruling is the latest in a series of court rulings around the country, some seeming to support exclusionary zoning, some attacking it. They include Golden vs. the Town of Ramapo, N.Y. [NEWS, Sept. '73], in which a limited-growth plan was allowed to stand untested by the U.S. Supreme Court; Construction Industry Association vs. City of Petaluma, Calif. [NEWS, March '74], in which a stricter growth limit was called unconstitutional; a recent Supreme Court decision for an "anti-commune" ordinance (Village of Belle Terre, L.I. vs. Boraas). There are many others.

A New York state case now pending before the U.S. Supreme Court may decide whether people who do not live in a community can challenge its zoning practices (in this case, black residents of Rochester, N.Y. suing the nearby suburb of Penfield).

Separately, Charleston County, S.C., apparently has rejected international power politics as a basis for local zoning. The county rezoned a Kuwaiti-owned island in its jurisdiction from agricultural to a PUD district, despite opposition to the project because of Kuwait's role in the Arab boycott against Israel.

For a story on new zoning problems in the post-crunch housing market, *see page 84.*

*Southern Burlington County NAACP *et al* vs. Township of Mount Laurel; no volume number has yet been assigned.

"I'm so convinced Delta and Delex are the best faucets around today, I bought 48 myself."

Joe Padilla is a very successful San Francisco plumbing contractor. He has been installing, repairing and replacing faucets for years.

And he feels so strongly about the superiority of Delta faucets he not only recommends them to his customers but uses them exclusively himself. In his own 48-room motel.

Why does a man who has his pick of any faucet in the world select Delta?

Partly because they're beautiful. But mostly because they don't have expensive cartridges or old fashioned washers that wear out and drip until they're replaced.

Delta faucets have a patented rotating valve instead. Which, according to tests, help Delta and Delex faucets last about seven times longer than ordinary faucets.

Besides that, in a recent study, when asked which faucets they installed most often, plumbers named Delta and Delex combined more than any other brand.*

If you need more convincing, specify washerless Delta single and Delex two-handle faucets on your next job. They can be mixed and matched, too. They come in a fine selection of finishes and styles for every kitchen, lav, tub and shower installation.

*For a copy of the study, write Delta Faucet.

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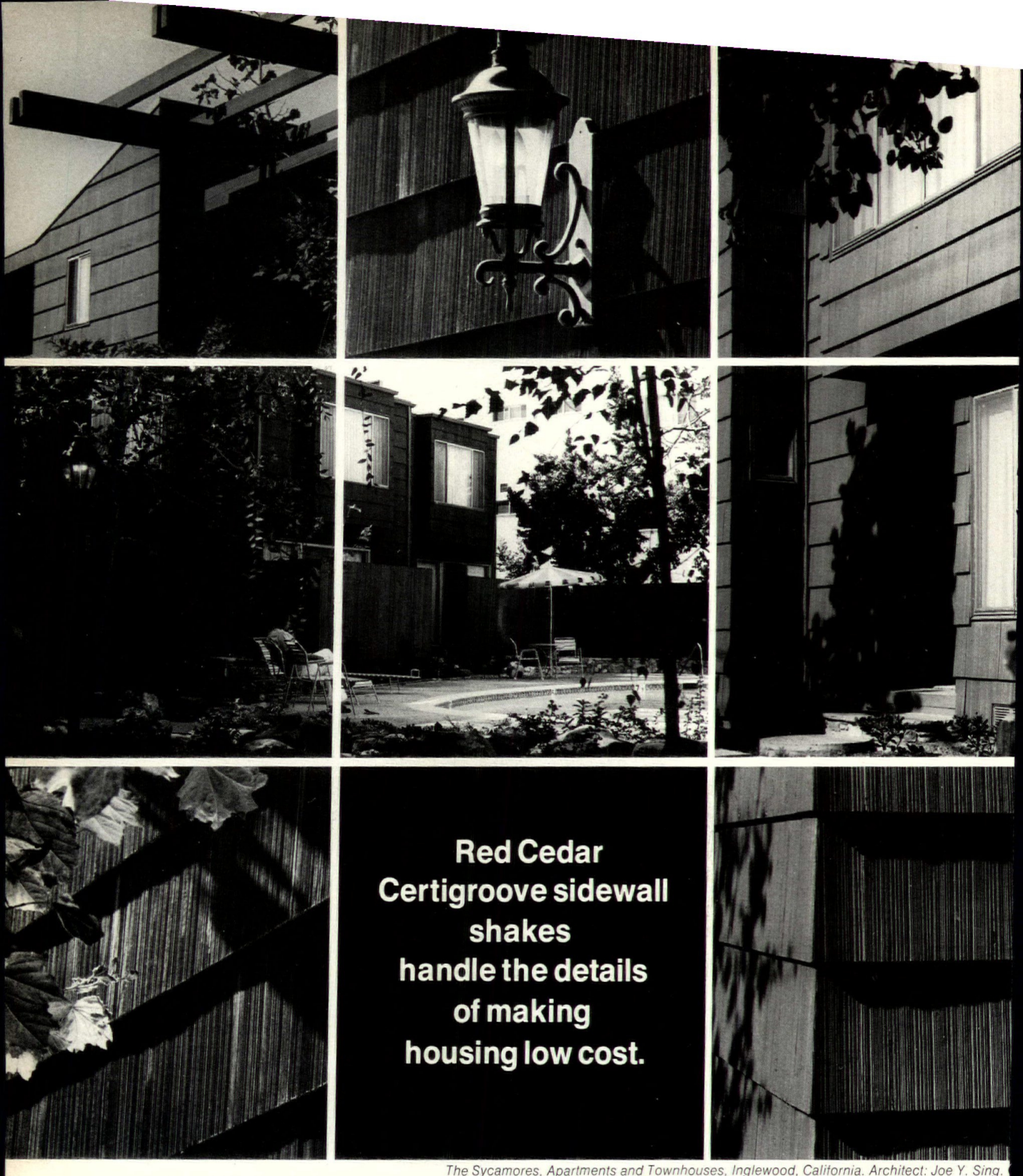
Delta·Delex Faucets

Washerless. To work as good as they look.

Delta Faucet Company, Greensburg, Indiana 47240. A Division of Masco Corporation of Indiana

CIRCLE 33 ON READER SERVICE CARD



Red Cedar Certigroove sidewall shakes handle the details of making housing low cost.

The Sycamores, Apartments and Townhouses, Inglewood, California. Architect: Joe Y. Sing.

Certigroove is a unique form of red cedar especially suited to projects where cost is a critical factor.

Machine-grooved, Certigroove sidewall shakes permit an extended weather exposure, leading to low applied costs plus the elegance of red cedar.

And Certigroove, like other forms of red cedar shingles and handsplit shakes, carry their own preservatives and provide excellent insulation. They're rich in texture and durable, at a price that makes them attractive for low budget projects.

So on your next building job, put Red Cedar Certigroove sidewall shakes to work. While you're counting your profits, they'll be handsomely covering the details.

For more details, write Red Cedar Shingle & Handsplit Shake Bureau, 5510 White Bldg., Seattle, Washington 98101. (In Canada: 1055 West Hastings St., Vancouver 1, B.C.)

The Certigroove label is your guarantee of quality specified by rigid industry standards. Insist on it.

Red Cedar Shingle & Handsplit Shake Bureau

One of a series presented by members of the American Wood Council.

CIRCLE 34 ON READER SERVICE CARD

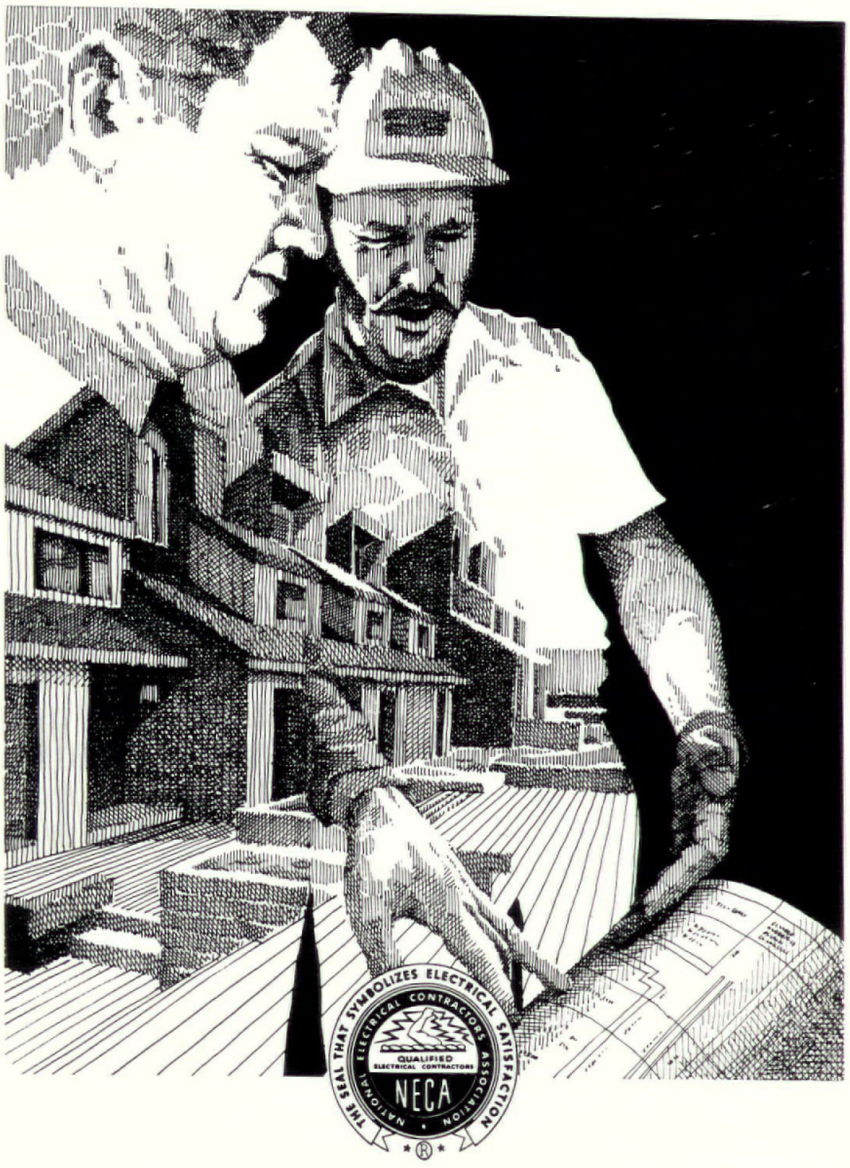
Professional electrical contractors. The electrical energy managers.

With shortages of virtually everything—including energy and money—facing the housing industry, waste is just plain foolish. The manpower and management skill necessary to reduce expensive waste are available, especially in the electrical construction field, right now. Who has them? Professional electrical contractors.

They're the ones you would call on to deliver wiring, lighting, heating, security, communications, in fact, the whole electrical system. Their job is to make sure that all electrical equipment is installed and maintained to make the most of the energy it uses, and that the project electrical work is completed on schedule and within the budget. That's why it could be helpful to work with a qualified electrical contractor early in the planning stages of your next project.

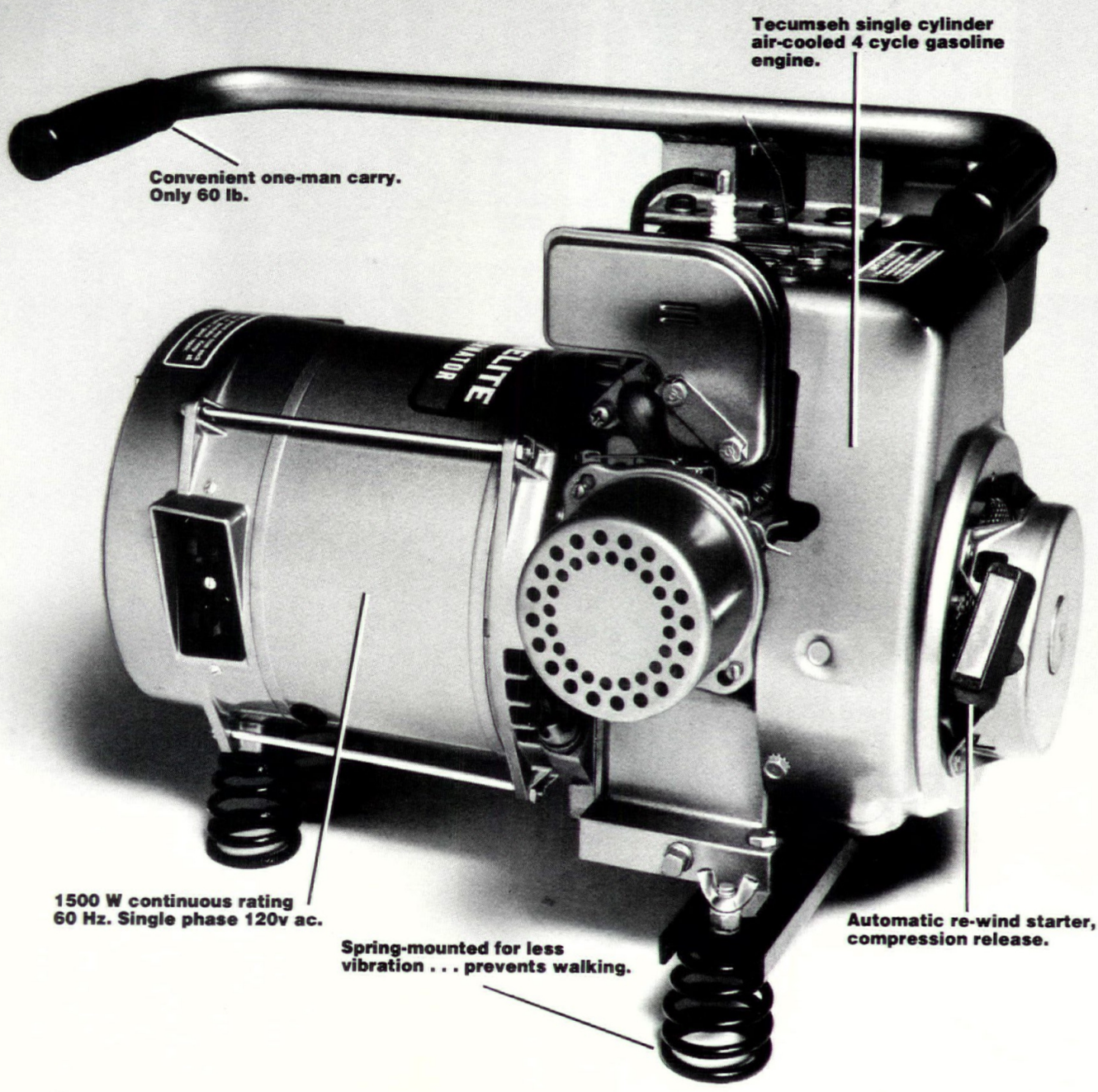
Residential developers can avoid a lot of construction waste by including professional electrical contractors on the building team. You'll be obtaining the benefits of specialized manpower, the latest equipment, and professional job management expertise—insuring on-site construction proficiency. Can you afford anything less?

Professionalism doesn't cost. It pays.



National Electrical Contractors Association, Inc.
Washington, D.C. 20014

Homelite...that's a lot of economy generator.

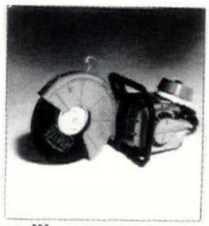


There's no sense buying more machine than you need for the job. That's why the Homelite line of generators includes this economy model of special interest to all farmers, homeowners and contractors.

It's lightweight and the price is right, yet it delivers good, dependable power when and where you need it.

This Homelite® generator is possibly the finest economy generator available today, and it's backed up by the best service organization you'll find. That's us . . . Homelite. For the price, that's a lot of generator.

heaters.


multi-purpose saws.

diaphragm pumps.

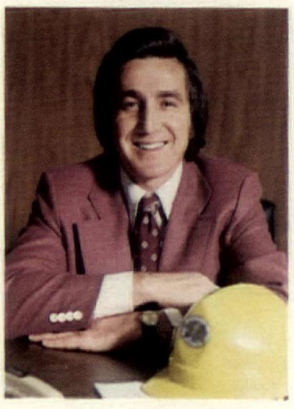
a textron division

HOMELITE We pack a lot into portable equipment.

Riverdale Avenue, Port Chester, New York 10573.

CIRCLE 126 ON READER SERVICE CARD

Nord's Crestmont Cortez-P carved entry door.



"We build custom, luxury homes and we want quality entries. We use Nord doors exclusively."

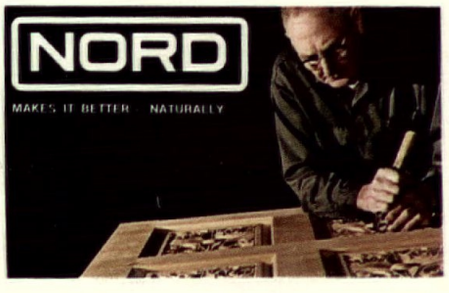
Charles Sheron, president
Charles Sheron Builders, Inc., Atlanta

The Nord name means quality to builders like Charles Sheron, the largest luxury home builder in Atlanta. His homes have price tags from $250,000 to $500,000. And they all have Nord carved entry doors.

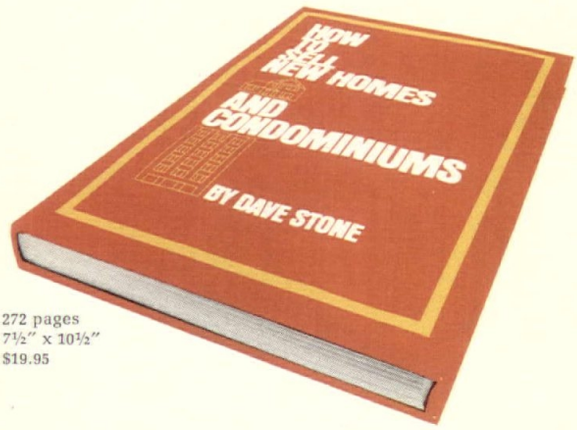
Nord quality starts with selected Western woods that are carefully dried in Nord's own kilns. Nord makes sure every board foot has the correct moisture content for precision manufacturing.

Then there's Nord craftsmanship. It's the old-world kind where carvings are deep and joints are tight and exact. Nord doors have fine detailing and rich design. And they're carefully inspected to make sure each one lives up to Nord's reputation for quality.

As Charles Sheron says, "They're top of the line." For more information, write "doors" on your letterhead and mail it to E. A. Nord Company, Everett, WA 98206.



House & Home presents Dave Stone's new book on how to turn wavering prospects into confident homebuyers



272 pages
7½" x 10½"
$19.95

Dave Stone, President of The Stone Institute, Inc., enjoys a national reputation as realtor, author, lecturer, salesman, sales trainer, sales manager and sales consultant to builders, developers, realty and financial firms in the housing field.

His mastery of selling strategy, selling tactics and selling lines derives from perceptive insight on what really happens when salesman and prospect meet. In plain, simple language, Dave Stone describes the nature of these reflex reactions and how to cope with them successfully.

As an outstanding professional in face-to-face selling, Dave Stone knows exactly what it takes to turn wavering prospects into confident buyers.

In his new book on HOW TO SELL NEW HOMES AND CONDOMINIUMS, Dave distills over thirty years of rich and varied selling experience as salesman, sales manager, sales trainer and sales consultant.

Dave Stone digs deep below the surface to give you a clear picture of how buyers and sellers react to each other. He shows both as factors in the human equation that tip the scale—and the sale—in one direction or the other.

HOW TO SELL NEW HOMES AND CONDOMINIUMS is a basic book about *people*—the people who *buy* homes from the people who *sell* homes. It brings to sight all the hidden worries, fears and hopes that motivate buyers and sellers alike. It shows how these powerful emotions bounce back-and-forth between buyer and seller. And it reveals how the salesman's own attitudes, moods and expectations become part of his own selling problem.

With style and wit, Dave Stone describes the thinking, planning and understanding behind successful strategy, selling tactics and selling lines that make the sale.

HOW TO SELL NEW HOMES AND CONDOMINIUMS was written not only to guide ambitious beginners, but also to update highly professional salesmen on the whole new set of problems involved in selling condominiums.

Worth the price of the book itself is the chapter on Selling Against Competition which compares buyer advantages of each type of housing to the disadvantages of each other type of housing. It provides instant leverage in knowing exactly how to approach almost anyone in the market for a new home or condominium.

That extra sale is all it takes to re-pay your investment in Dave Stone's new book on HOW TO SELL NEW HOMES AND CONDOMINIUMS over and over again. Make Dave's ideas work for you. Fill in the order form below.

SALES STRATEGY THAT WORKS

49 ways to help buyers with equity financing
54 ways to judge competitive location, design, construction quality & financial factors
Sales strategy for scattered sites
6 ways model homes can increase sales volume
Logical sequence for visual aids
Use of calendars, log books and lot-holds
The worst place for floor plans
How to isolate selection and material exhibits
Typical Builder Control Manual for openings
Traffic Report Form to detect marketing problems
Subdivision Control System for materials

SALES TACTICS THAT WORK

How to dissolve buyer tension
How to finesse the complainer
How to set deadlines for decision
How to handle impossible requests for change
How to handle options without losing control
How to reduce major problems to minor factors
How to ask the questions they want to answer
How to create a sense of urgency
How to relate floor plans to living requirements
How to set up return visits
6 knockout questions for openers
8 typical closing questions
95 sales slants for 46 common expressions

SELLING AGAINST COMPETITION

Buyer Advantages	Buyer Disadvantages
New home vs	Re-sale home
Production home vs	Custom home
Custom home vs	Production home
Conventional home vs	Mobile home
Owning vs	Renting
Condominium vs	Single-family
Condominium vs	Townhouse
Single-family vs	Condominium
Townhouse vs	Condominium
Townhouse vs	Single-family
Low-rise vs	High-rise
High-rise vs	Low-rise
Small community vs	Large community
Large community vs	Small community

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Dave Stone's new book on
HOW TO SELL NEW HOMES AND CONDOMINIUMS
Enclosed is check for $19.95 payable
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HH–5–75

PROFILE OF TODAY'S HOMEBUYER

How decisions are made: the balancing act
Obstacles to decision-making
6 things that worry homebuyers
25 common objections and what they mean
19 buying signals and how to read them
Buyer options as competitive factors
Buyer Profile Guide to closing action
Buyer's Household Inventory List
Checklist for the buyer's big move

PROFILE OF THE SUCCESSFUL SALESMAN

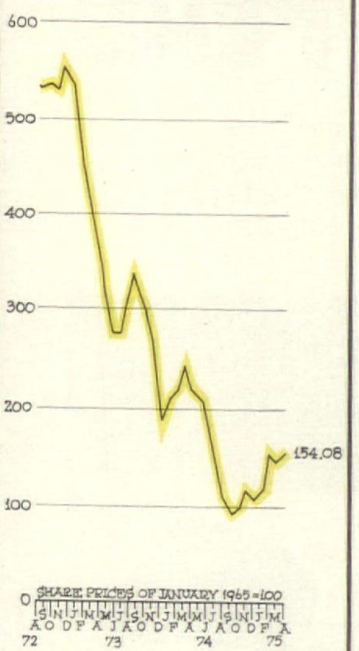
The art of quick qualifying
How to control your effect on others
How to feature the buyer's perceived values
9 elements of siting you should know
14 types of construction knowledge you need
How to schedule the 600-minute salesday
Daily Work Plan for effective selling
Sales Procedure Checklist
Flowline of selling points for presentations
13 ways to enrich your prospect list
15 good thank-you gifts for buyers

Housing stocks rise sharply

The passage of tax-cut legislation sent stocks upward on the major exchanges, and housing issues were carried right along.

HOUSE & HOME's index of 25 housing issues rose to 154.08 from 144.35 in the month ended April 1. Homebuilding companies and mobile-home manufacturers led the advance.

Here's the graph of 25 stocks.



Here's how the issues in the five groups performed.

	Apr. '74	Mar. '75	Apr. '75
Builders	190	126	157
Land developers	130	94	99
Mortgage cos.	538	199	205
Mobile homes	449	409	451
S&Ls	115	103	101

Company		Apr. 1 Bid/ Close	Chng. Prev. Month
BUILDING			
Alodex—d	OT	⅛	.....
AVCO Comm. Devel.	PC	½	– ⅛
American Cont. Homes	OT	2⅞	+ 1⅜
American Urban Corp.	OT	⅝	.....
Bramalea Con. (Can.)	TR	5⅜	– ⅛
Campanelli Ind. (New America Ind.)	OT	1¼	.....
Capital Divers (Can.)—d	OT	.418	.058
•Centex Corp.	NY	9½	+ 1¾
Cenvill Communities—d	AM	4¼	+ 1⅝
Cheezem Dev. Corp.	OT	¾	.....
Christiana Cos.	AM	1¾	+ ¼
Cons. Bldg. (Can.)	TR	2.68	+ .08
Dev. Corp. Amer.	AM	5	+ ¼
Dev. Int. Corp.—d	OT	.04	– .022
Edwards Indus.	OT	3¼	+ ⅜
FPA Corp.	AM	3⅜	– ⅛
Carl Freeman Assoc.	OT	2⅛	.....
Frouge Corp.—d	OT	4½	.....
General Builders	AM	1⅜	.....
Hoffman Rosner Corp.	OT	3	– ¼
Homewood Corp.	OT	6	+ ½
Hunt Building Corp.	OT	2	.....
•Kaufman & Broad	NY	8⅛	+ 1¾
Key Co.	AM	3	+ 1⅛
Leisure Technology—d	AM	2½	+ ¾
Lennar Corp.	NY	7⅛	+ 2½
McCarthy Co.—d	PC	2	+ ⅝
McKeon Const.	AM	3¼	+ 1¼
H. Miller & Sons	AM	5¾	– ¼
Mitchell Energy & Dev.	AM	11⅝	+ ⅛
Oriole Homes Corp.	AM	7⅞	+ 2⅛
Presidential Realty	AM	3¾	– ¼
Presley Development	AM	3¾	+ ¾
Pulte Home Corp.	AM	3	+ ⅞
Robino-Ladd Co.—d	AM	1	.....
Rossmoor Corp.	AM	4¾	+ 1¼
•Ryan Homes	AM	19⅛	+ 2¼
Ryland Group	OT	8⅝	+ 1⅞
•Shapell Industries	NY	10¾	+ 1⅞
Shelter Cp. of Amer.—d	OT	⅛	– 1/16
Standard Pacific	AM	4⅜	+ 1½
Universal House & Dev.	PC	½	+ ⅜
•U.S. Home Corp.	NY	6⅜	+ 2⅛
Valley Forge Corp.	OT	¼	.....
Washington Homes	OT	2½	+ ¾
Del. E. Webb	NY	3¾	+ ½
Westchester Corp.	OT	⅝	+ ⅛
SAVINGS & LOAN ASSNS.			
American Fin. Corp.	OT	11¼	+ ⅞
Calif. Fin.	NY	3⅝	.....
Empire Fin.	AM	15	+ ⅜
•Far West Fin.	NY	5⅜	+ ⅜
Fin. Corp. Santa Barb.	AM	10⅞	– 1
•Fin. Fed.	NY	10¾	.....
•First Charter Fin.	NY	11¼	– ⅛
First Lincoln Fin.	OT	2⅜	– ¼
First S&L Shares	AM	8½	+ ⅜
First Surety	OT	3¼	– ⅛
First West Fin.	OT	1¾	.....
Gibraltar Fin.	NY	10	+ ¼
Golden West Fin.	NY	11¼	+ ⅜
•Great West Fin.	NY	15½	– 1
Hawthorne Fin.	OT	7¼	.....
•Imperial Corp.	NY	9	.....
Transohio Fin. (Union Fin.)	NY	7¼	+ 1¼
Trans World Fin.	NY	9⅞	+ ½
United Fin. Cal.	NY	7¼	+ ⅜
Wesco Fin.	NY	11⅞	+ 1⅜
MORTGAGING			
Charter Co.	NY	30¼	+ 1¼
CMI Investment Corp.	NY	9½	– ⅛
•Colwell	AM	4½	+ 1
Cont. Illinois Realty	NY	2¼	+ ⅜
Fed. Nat. Mtg. Assn.	NY	16⅛	– 1¼
Fin. Resources Gp. (Globe Mortgage)	OT	1⅛	+ ⅜
•Lomas & Net. Fin.	NY	6¾	+ ⅛
•MGIC Inv. Corp.	NY	12½	.....
Palomar Fin.	AM	1⅛	.....
United Guaranty Corp. (formerly FMIC Corp.)	OT	6	+ ½
Western Pac. Fin. Corp. (formerly So. Cal. Mort. & Loan Corp.)	OT	3	+ ¼
UPI Corp. (United Imp. & Inv.)	AM	2⅝	+ ½
REAL ESTATE INV. TRUSTS			
Alison Mtg.	NY	4⅛	+ ¼
American Century	AM	2½	+ ⅜
Arlen Property Invest.	OT	5¼	– ½
Atico Mtg.	NY	3⅞	+ ⅛
Baird & Warner	OT	5½	+ 1
Bank America Rlty.	OT	7⅛	+ 1
Barnes Mtg. Inv.	OT	2¾	+ ¼
Barnett Mtg. Tr.	NY	3⅝	+ 1⅛
Beneficial Standard Mtg.	AM	4¾	+ ⅝
BT Mort. Investors	NY	6¾	+ 2¾
Cameron Brown	NY	2¾	+ ⅝
Capitol Mortgage SBI	NY	3	+ ¾
Chase Manhattan	NY	5⅜	+ ⅜
CI Mortgage Group	NY	2⅛	+ ½
Citizens Mtg.—d	AM	3	+ ½
Citizens & So. Rlty.	NY	4⅜	+ ¾
Cleve. Trust Rlty. Inv.	OT	3¼	+ ¼
Colwell Mtg. Trust	AM	3⅝	– ⅝
Conn. General	NY	14½	+ 1½
•Cont. Mtg. Investors—d	NY	1⅜	+ ¼
Cousins Mtg. & Eq. Inv.	NY	2⅞	+ ½
Diversified Mtg. Inv.	NY	2⅛	+ ⅜
Equitable Life	NY	17¼	+ 2⅝
Fideico Growth Inv.	AM	10⅛	+ 2¾
First Memphis Realty	OT	3½	– ¼
•First Mtg. investors	NY	1⅝	+ ⅜
First of Denver	AM	3¼	+ ¼
First of Pennsylvania	NY	4⅜	+ ¾
Franklin Realty—d	AM	3⅜	+ ¾
Fraser Mtg.	OT	9	– ¼
Gould Investors	AM	4¾	+ ⅛
Great Amer. Mtg. Inv.—d	NY	2¾	+ ½
Guardian Mtg.	AM	3⅜	+ ⅜
Gulf Mtg. & Realty	AM	3⅛	+ ¾
Hamilton Inv.	OT	1⅞	.....
Heitman Mtg. Investors	AM	2½	+ ⅛
Hubbard R. E. Inv.	NY	12⅜	– ½
ICM Realty	AM	10⅞	+ ⅝
Larwin Mtg.	AM	2⅜	+ ⅝
Lincoln Mtg.	OT	1⅛	+ ½
Mass Mutual Mtg. & Rlt.	NY	10¾	– ¼
Mission Inv. Trust (formerly Palomar)	AM	15/16	– 1/16
Mony Mtg. Inv.	NY	7	+ ½
Mortgage Trust of Amer.	NY	3⅝	+ ½
National Mortgage Fund	NY	2⅛	+ ⅞
Nationwide R.E. Inv. (Galbreath Mtg. Inv.)	OT	4⅜	– ⅜
North Amer. Mtg. Inv.	NY	9⅜	+ ⅞
Northwest Mut. Life Mtg. & Rlty.	NY	9⅝	– ⅞
PNB Mtg. Rlty. Inv.	NY	5⅞	+ 1⅛
Penn. R. E. Inv. Tr.	AM	9½	+ ¾
Property Capital—d	AM	9	---
Realty Income Tr.—d	AM	6⅛	+ 1⅜
Republic Mtg. Inv.	NY	2½	.....
B. F. Saul, R.E.I.T.	NY	3¾	+ ¼
Security Mtg. Inv.	AM	1⅛	.....
Stadium Realty Tr.	OT	2½	.....
State Mutual SBI	NY	3	+ ⅛
Sutro Mtg.	NY	4⅜	+ ¾
Unionamerica Mtg. & Equity	AM	2¼	+ ⅜

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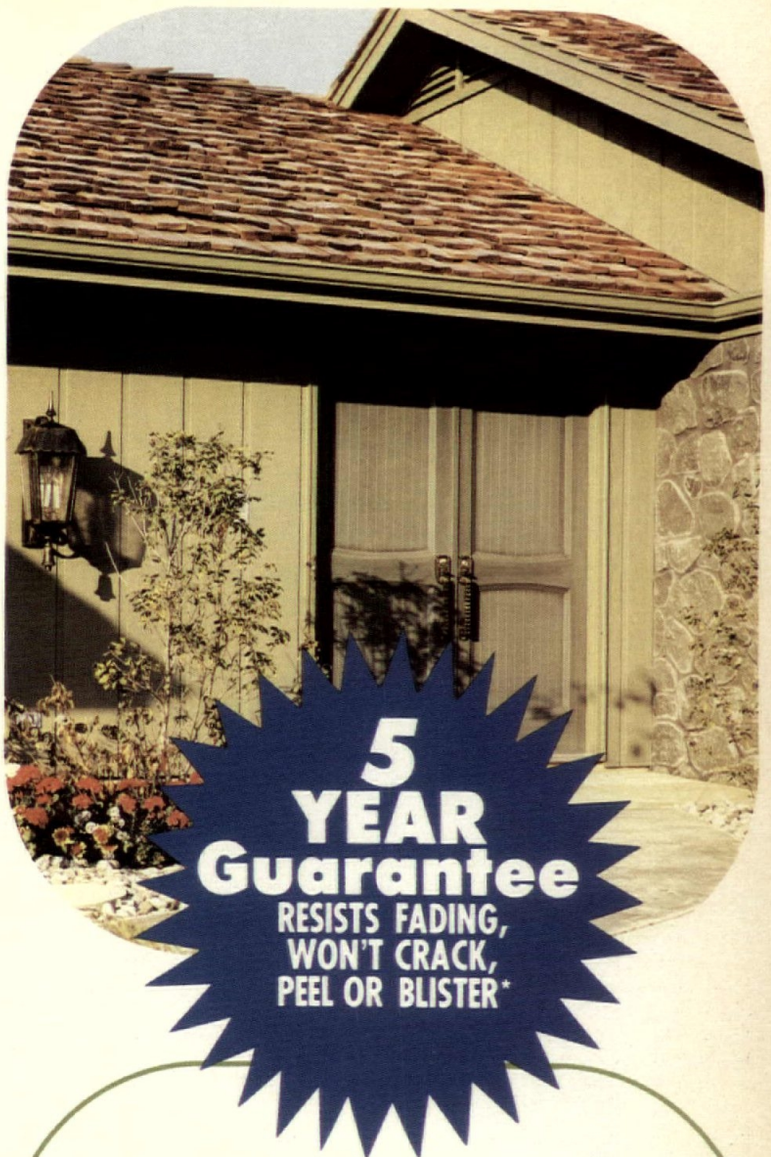


For lasting beauty on exterior or interior wood, specify REZ® Acrylic Latex Stain. It forms a tough, flexible film that clings to the wood—so tough that we **guarantee*** it for five years . . . colors stay bright. And, because it's latex, REZ Acrylic Latex Stain goes on easily, with less spattering. Easy cleanup with just soap and water.

Use REZ Solid Color Acrylic Latex Stain where a full-color, low-gloss sheen is desired. Or, to highlight the natural grain beauty and texture of wood, use REZ Semi-Transparent Acrylic Latex Stain.

Detailed information on REZ Acrylic Latex Stains can be found in Sweet's Catalog (9.9/Re). Or write to The REZ Company, One Gateway Center, Pittsburgh, PA 15222.

* *When applied according to label instructions.*

Rez®
Natural Wood Finishes
by
PITTSBURGH PAINTS
PPG INDUSTRIES, Inc., One Gateway Center, Pittsburgh, Pa. 15222

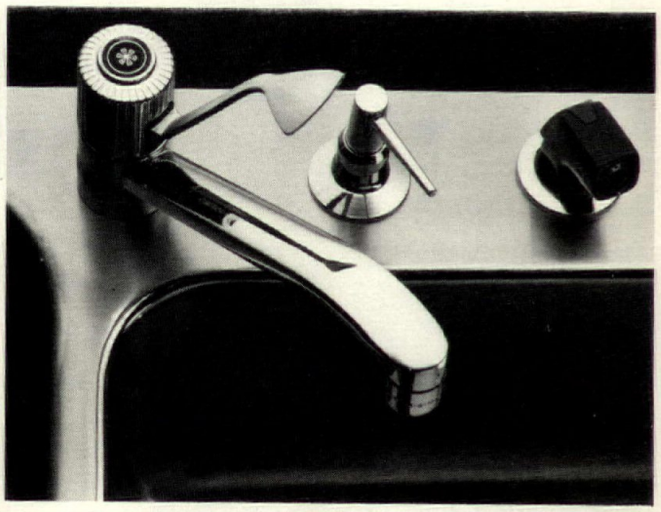
NEW SPACE-SAVERS FROM MOEN CONCENTRATE ON QUALITY SALES APPEAL.

Because today's trend is to upscale quality and downscale size, Moen introduces two new classics: the Chateau 78™ faucet and the Camelot™ Stainless Steel sinks. Both are designed to help you fit traditional Moen quality into compact space. And provide more sales appeal at competitive prices.

This is the Chateau 78, a beautiful blend of style and economy.
It's lean, crisp and contemporary with the right touch of functional design elegance that enhances any kitchen decor. The hose and spray fit into the mirror-polished stainless steel escutcheon to conserve space on any 3-hole sink. A choice of models lets you have it with separate hose and spray for 4-hole sinks. Both models have the famous Moen cartridge for unmatched reliability and the single handle conservation of water and fuel.

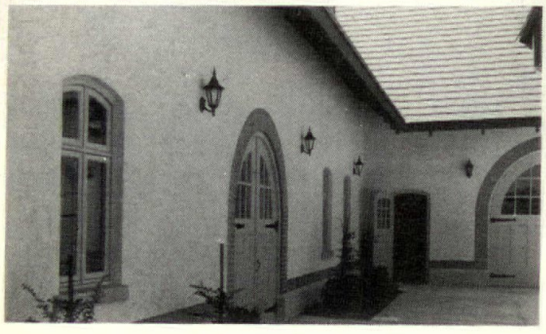
Here's a super-salesman that can save construction dollars: the Chateau 78/Bar Sink Combination. Nothing has more contemporary sales appeal than this hospitality center. If you're thinking of replacing the powder room, here's an idea that replaces it at a lot less cost, less space and still appeals to both husband and wife.

An extra-selling touch at a modest price. An exclusive feature of our Chateau 78/Camelot combination, KL 3322, is this attractive arrangement of Chateau 78 faucet, hose and spray and liquid dispenser. The homemaker has her own supply of hand lotion or liquid detergent right at hand. One more Moen feature she will really appreciate.



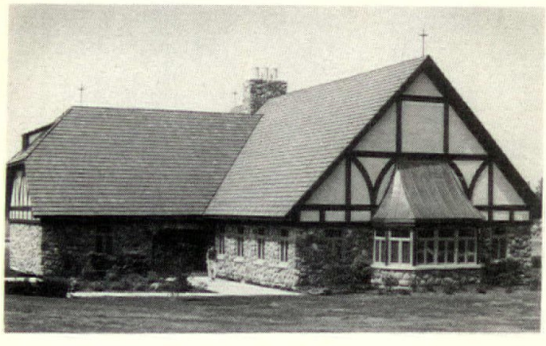
Camelot! Gleaming elegance plus bigger bowls, model-for-model, than you can get in any other sink. This new line of Moen Stainless Steel Sinks can save you up to 168 square inches of counter space because it eliminates ledges. Saves installation time, too, with self-rimming feature, exclusive Jiffy Clamp and built-in Sealtite strainer. Exclusive feature: Chateau 78 faucets in space-saving single-post mounting. Six models, single and double bowls.

Moen reliability: this cartridge is the heart of every Moen faucet. It's the big reason why Moen has an unequalled record of reliability. When you have the combination of Moen reliability and Moen marketing innovation, you really don't need another choice. See your Moen man today. Or contact Moen, a Division of Stanadyne, Elyria, Ohio 44035.



Budweiser Barns, Merrimack, N.H.
Arch.: Peckham, Guyton, Inc., Contr.: Harvey Construction Co., Manchester, N.H.: Appl.: Associated Concrete Coatings, Manchester, N.H.

Old German Bauernhof stucco texture duplicated on new barn for Clydesdales, with THORO SYSTEM PRODUCTS



THOROSEAL PLASTER MIX applied by trowel and stipple brush achieved the old European atmosphere of the barns of the original Clydesdale breeders. The effect was accomplished by troweling on a thin, tight coat of cement-based THOROSEAL PLASTER MIX, letting it cure for a week then doubling back with another thin coat and textured with a stipple brush.

The beautifully designed and constructed barns and outbuildings are now completely waterproofed with a permanent finish—thanks to THOROSEAL PLASTER MIX.

Products of the THORO SYSTEM can help solve many design and masonry protection problems.

THORO

STANDARD DRY WALL PRODUCTS

DEPT. 75-HH-1 • 7800 N.W. 38th ST., MIAMI, FLORIDA 33166

CIRCLE 40 ON READER SERVICE CARD

Company		Apr. 1 Bid/ Close	Chng. Prev. Month
U.S. Realty Inv.	NY	4	+ ¾
Wachovia Realty Inc.	NY	3⅝	+ ⅜
Wells Fargo Mortgage	NY	5⅝	+ ½
LAND DEVELOPERS			
All-State Properties	OT	.07	– .08
•AMREP Corp.	NY	2¾	– ⅜
Arvida Corp.	OT	6⅜	+ 1
Atlantic Imp.—d	OT	2½	.....
Canaveral Int.	AM	¾	.....
Cavanagh Communities—d	NY	⅞	.....
Crawford Corp.	OT	4	.....
•Deltona Corp.	NY	6⅞	+ ⅛
Dominion Holding (Disc. Inc. of America)	OT	⅜	.....
Fairfield Communities—d	OT	¼	.....
•Gen. Development	NY	5⅞	+ 1½
Getty Financial Corp. (Don the Beachcomber)	OT	1	.....
•Horizon Corp.	NY	2¾	– ⅝
Landmark Land Co. (Gulf State Land)	AM	1⅝	.....
Land Resources	OT	¾	+ ⅛
Major Realty	OT	1.44	.....
•McCulloch Oil	AM	4	– ⅛
Sea Pines Co.	OT	2¾	+ ⅛
South. Rlty., Util.—d	AM	4⅝	+ ⅛
MOBILE HOMES & MODULES			
•Champion Home Bldrs.	AM	3⅞	+ ⅜
•Commodore Corp.—d	AM	1¼	.....
Conchemco	AM	7½	– ½
De Rose Industries	AM	2⅛	+ ⅞
•Fleetwood	NY	11⅞	+ 1⅛
Golden West	AM	3⅜	+ 1⅜
Moamco Corp. (formerly Mobil Americana)	AM	¾	+ 1/16
Mobile Home Ind.	NY	4	+ 1¼
Monarch Inc.	OT	1¼	– ⅛
•Redman Inc.	NY	3¾	+ ¾
Rex Noreco	NY	1⅜	+ ⅛
•Skyline	NY	18	+ 1⅜
Town and Country	AM	3½	+ 1¼
Zimmer Homes	AM	4⅛	+ 1⅜
Brigadier Inc.	OT	1	.....
Environmental Commun.	OT	1/16	– 1/16
Hodgson Houses	OT	¾	+ ⅛
Liberty Homes	OT	2¼	+ ⅜
Lindal Cedar Homes	OT	1	– ¼

Company		Apr. 1 Bid/ Close	Chng. Prev. Month
Nationwide Homes	AM	9½	– ½
Shelter Resources	AM	4	+ ½
Swift Industries—d	OT	¼	+ 3/16
DIVERSIFIED COMPANIES			
American Cyanamid	NY	25¼	– ⅜
Amer. Standard	NY	12¼	.....
Amterre Development	OT	1⅛	.....
Arlen Realty & Develop.	NY	2½	+ ¾
AVCO Corp.	NY	4½	+ ⅞
Bendix Corp.	NY	31¼	+ 2
Bethlehem Steel	NY	34	+ 3
Boise Cascade	NY	17⅛	+ 1¼
Building & Land Tech.	OT	1¾	+ ½
CNA Financial (Larwin)	NY	4⅝	+ ¾
Campeau Corp.	TR	5½	+ ½
Castle & Cooke (Oceanic Prop.)	NY	15¼	+ 1⅛
CBS (Klingbeil)	NY	45½	+ 4¼
Champion Int. Corp. (U.S. Plywood-Champion)	NY	14¾	– 1¼
Christiana Securities	OT	97½	– 1
Citizens Financial—d	AM	1⅛	– ½
City Investing (Sterling Forest)	NY	6¾	+ ⅝
Corning Glass	NY	43⅛	+ 1⅛
Cousins Properties	OT	3½	+ ⅛
Dreyfus Corp. (Bert Smokler)	NY	7	+ 1
Environmental Systems	OT	1/16	.....
ERC Corp. (Midwestern Fin.)	OT	17¾	+ ¼
Evans Products	NY	5⅜	+ 2
Ferro Corp.	NY	26¼	+ 1¾
First Gen. Resources	OT	1/16	+ .013
First Rlty. Inv. Corp.	AM	⅞	– ⅛
Fishback & Moore	NY	31¾	+ 1¼
Forest City Ent.	AM	3⅞	– ⅜
Flagg Industires	AM	3	.....
Frank Paxton Corp. (Builders Assistance Corp.)	OT	8	+ ¾
Fruehauf Corp.	NY	16⅝	– 1¼
Fuqua Corp.	NY	5⅝	+ ⅝
Georgia Pacific	NY	39⅜	+ 1
Glassrock Products	AM	3¼	+ 1
Great Southwest Corp.—d	OT	⅛	– .187
Gulf Oil (Gulf Reston)	NY	19¼	– 1¼
Gulfstream Land & Dev.—a (Bel-Aire Homes)	AM	6¾	– 1¾
INA Corp. (M. J. Brock)	NY	31¾	– ¼

Company		Apr. 1 Bid/ Close	Chng. Prev. Month
Inland Steel (Scholz)	NY	39⅞	+ 3¾
International Basic Econ.	OT	1¾	+ ⅜
International Paper	NY	41⅝	+ 1¾
Inter. Tel. & Tel.	NY	19⅞	+ ¾
Investors Funding—d	AM	1	.....
Killearn Properties—d	AM	1¾	.....
Leroy Corp.	OT	1¼	– ¼
Ludlow Corp.	NY	9¾	– ¾
Monogram Industries	NY	7¾	+ ⅜
Monumental Corp. (Jos. Meyerhoff Org.)	OT	11½	+ ¾
Mountain States Fin. Corp.	OT	5	– ¼
National Homes	NY	4¼	+ ⅞
National Kinney (Uris Bldg.)	AM	2¾	+ ½
NEI Corp.	OT	4½	– ⅝
Occidental Petroleum (Occ. Pet. Land & Dev.)	NY	13¼	– 1⅝
Pacific Coast Prop.—d	AM	⅜	.....
Perini Corp.	AM	5¾	– ¾
Philip Morris (Mission Viejo Co.)	NY	47⅞	+ 1⅛
Pope & Talbot	NY	13¾	+ 1⅝
Republic Housing Corp.—d	AM	2	+ ⅛
Rouse Co.	OT	3⅞	+ ⅜
Santa Anita Consol. (Robt. H. Grant Corp.)	OT	6	.....
Tenneco Inc. (Tenneco Realty)	NY	22⅝	– ⅛
Time Inc. (Temple Industries)	NY	34¾	+ ¼
Tishman Realty	OT	12⅜	+ ¼
Titan Gorup Inc.	OT	1	+ 1/16
UGI Corp.	NY	12½	+ ½
Weil-McLain	NY	8¼	.....
Westinghouse (Coral Ridge Prop.)	NY	14⅜	+ 1⅝
Weyerhaeuser (Weyer. Real Est. Co.)	NY	33½	+ ⅜
Whittaker (Vector Corp.)	NY	2⅞	+ ¾
Wickes Corp.	NY	12	+ 1¼
SUPPLIERS			
Armstrong Cork	NY	24¾	– ⅝
Automated Bldg. Comp.—d.	AM	3⅝	+ ⅝
Bird & Son	OT	35½	+ 2½
Black & Decker	NY	30¼	.....
Carrier Corp.	NY	12	+ 1¾
Certain-teed	NY	9⅞	+ ⅝

Company		Apr. 1 Bid/ Close	Chng. Prev. Month
Crane	NY	39¾	+ ⅝
Dexter	NY	11½	+ ⅞
Dover Corp.	NY	38⅞	+ 2⅜
Emerson Electric	NY	30¾	– 3½
Emhart Corp.	NY	18⅞	– ⅛
Fedders	NY	5½	+ 1½
Flintkote	NY	15¼	– ⅝
GAF Corp.	NY	9½	– ⅞
General Electric	NY	45⅞	+ 1
Goodrich	NY	17	+ ¾
Hercules	NY	23¼	– 4¼
Hobart Manufacturing	NY	17⅜	– ⅝
Int. Harvester	NY	25½	– 1
Johns-Manville	NY	20½	– ⅞
Kaiser Aluminum	NY	22½	+ 4½
Keene Corp.	NY	5⅝	+ ½
Leigh Products	AM	6⅞	+ 1⅜
Masco Corp.	NY	41¾	+ 2½
Masonite Corp.	NY	30⅝	+ ¼
Maytag	NY	26¾	+ ¾
National Gypsum	NY	13¼	+ ¼
Norris Industires	NY	15⅞	+ ⅝
Overhead Door	NY	7	+ ½
Owens Corning Fibrgl.	NY	35½	– 2
Potlatch Corp.	NY	31¼	+ 4¼
PPG Industries	NY	26½	+ 1
Reynolds Metals	NY	18¾	+ 1⅞
Rohm & Haas	NY	59¼	– 4⅛
Ronson	NY	6⅞	– ⅛
Roper Corp.	NY	11⅞	– 1⅛
St. Regis Paper	NY	23¼	– 1
Scovill Mfg.	NY	12¼	+ 1½
Sherwin Williams	NY	43⅛	+ 3⅛
Skil Corp.	NY	9⅝	– ¾
Slater Electric	OT	4¼	+ ½
Stanley Works	NY	20⅜	+ 2
Tappan	NY	5⅝	+ ¾
Thomas Industries	NY	8¾	+ 1¾
Triangle Pacific	NY	9	+ 1½
U.S. Gypsum	NY	19⅛	+ 1⅜
U.S. Steel	NY	57¾	+ 7½
Wallace Murray	NY	8⅜	+ ⅞
Jim Walter	NY	34	+ 6¾
Whirlpool Corp.	NY	23½	+ 3

AM—closing price American Stock Exchange. NY—New York Stock Exchange. OT—over-the-counter bid price. PC—Pacific Exchange. TR—Toronto Stock Exchange. 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.

ANSWERING THE NEED

SEVENTEENTH ANNUAL PACIFIC COAST BUILDERS CONFERENCE
JUNE 25, 26 AND 27, 1975 SAN FRANCISCO, CALIFORNIA

PCBC

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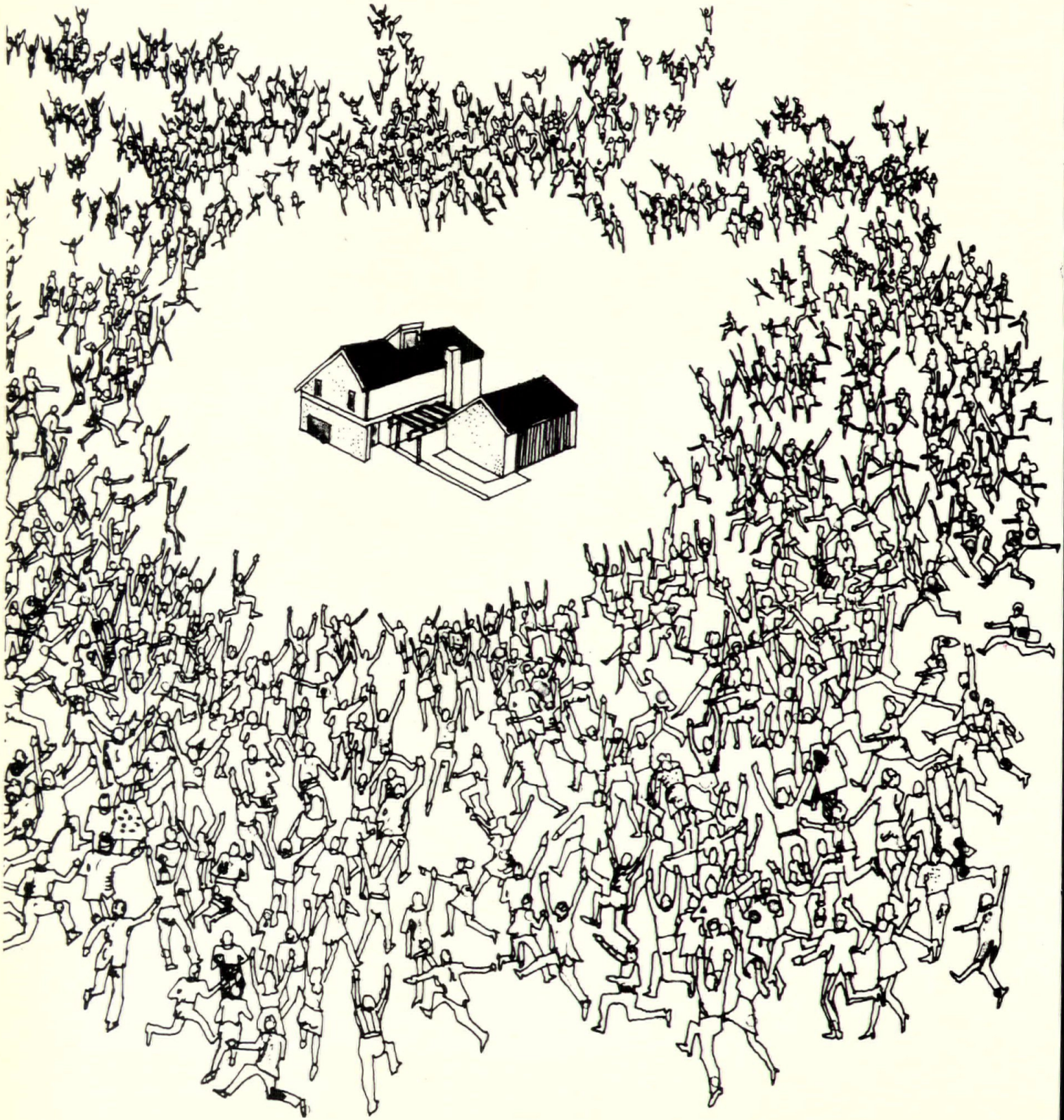
Pacific Coast Builders Conference
235 Montgomery Street, Suite 1407
San Francisco, California 94104
(415) 981-1067

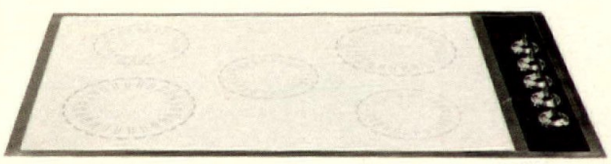


hermador's new smoothtops mean business.

The house will be pre-sold when you install a Thermador Thermaglass™ cooktop in the kitchen. It's loaded with sales appeal and cooking conveniences not available on other glass cooktops. Plus the fine craftsmanship that distinguished Thermador's entire line of built-in kitchen appliances.

Besides providing a streamlined, uncluttered look, here are some of the extra features you'll find:

Model TGT45, above, is a one-of-a-kind cooktop with barbecue grill that trades places with a griddle. When the lid is lowered, the griddle area becomes a warming surface. Four elements have infinite heat controls, providing cooking speeds from a rolling boil to slow simmer. Each element has an "on" light to indicate that it is in operation. A handsome sunburst design defines each cooking area. Any type flat-bottom utensil may be used.



Model TGT36 is the only smooth cooktop with five surface units, two large and three regular size, with integral controls on the side.

Write for information on the complete line of Thermador appliances for remodeling, replacement or new construction:

THE ELEGANT DIFFERENCE
Thermador
A DIVISION OF NORRIS INDUSTRIES
5123 District Blvd., Los Angeles, Ca. 90040

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NORRIS INDUSTRIES

Sold through Thermador/Waste King Marketing Department
Eastern office: 615 Sherwood Parkway, Mountainside, N.J. 07092

CIRCLE 43 ON READER SERVICE CARD

Here's proof of what is—and isn't—a condo market

It's a marketing axiom that the people most likely to buy condo are singles, empty nesters and others wanting the freedom of condo living. Conversely, people with children are supposed to prefer detached housing.

This project, the Terraces at Snapfinger Woods, bears out both axioms. Its smaller units have sold well: Twenty-six of the project's 33 two- and two-bedroom-plus-dens (starting at $38,000 and 1,550 sq. ft.) have been sold since opening in October 1973. But only nine of the 28 family-size, three- and four-bedroom units (up to 2,130 sq. ft. for $60,000) have been sold.

And the average project buyer matches the typical condo-buyer profile: He is 35 years old, has a $22,000 income, and, in 23 of 35 cases, is childless. Eight buyers are either single, widowed or divorced.

Why did the developer, Phipps Land Co., build such a large proportion of family-size units? There seemed to be a good reason: A neighboring, family-oriented rental project had 98% occupancy.

"Our conclusion," says Phipps vice president Joe Hamilton, "is that people with children will rent for $550 a month, but won't buy a $60,000 condo."

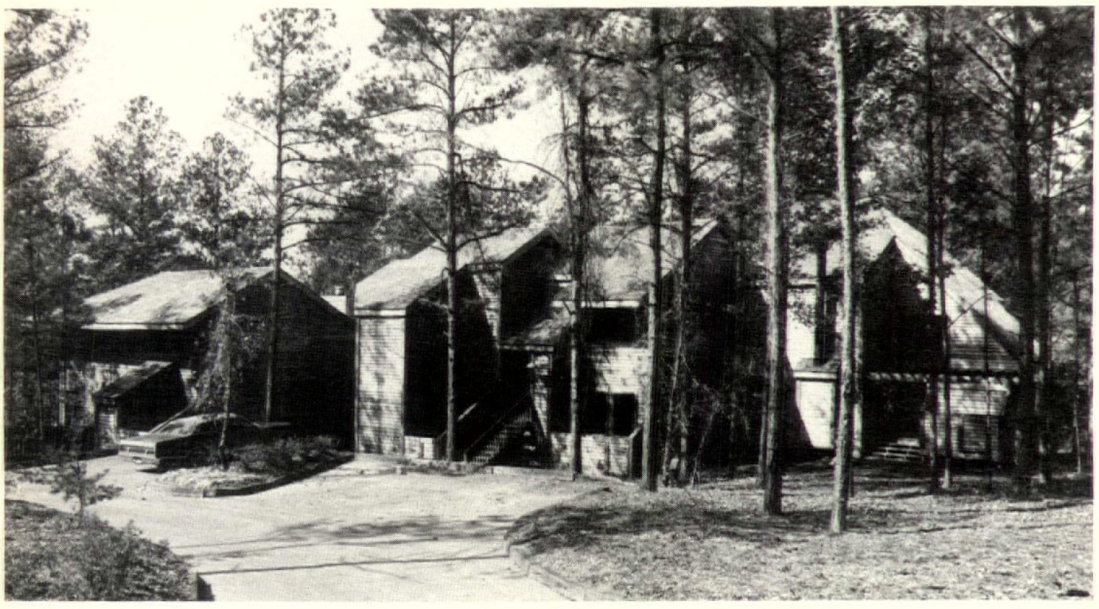
The Terraces is part of Phipps Land Co.'s 1,450-acre Snapfinger Woods, a PUD 12 miles east of downtown Atlanta. It contains 61 units in 22 one- to five-unit buildings on 9.6 acres.

Land costs were $174,000. Direct construction costs were $2,411,000; general and administrative and construction-loan costs were $579,000.

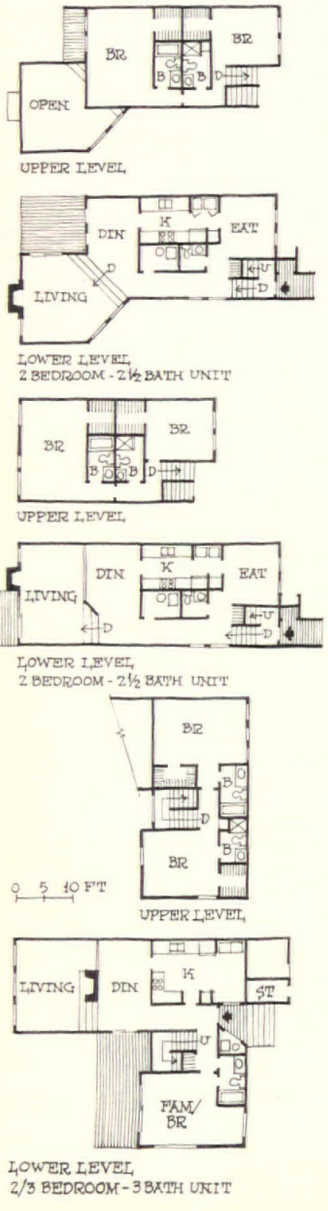
Despite the market problem, and despite the 4,000-condo inventory in the Atlanta area, the Terraces was 66% occupied 16 months after opening. Project Manager Ralph Jones says this respectable record is due in large part to the Snapfinger amenities, which include a 27-hole golf course, a 35,000-sq.-ft. village center and, at the Terraces, a swimming pool.

To meet competition from the big Atlanta condo-inventory the Phipps Co. has recently taken these steps:

- Reduced prices on the four-bedroom units by about $3,000. (Prices on remaining two- and two-bedroom-plus-den units have gone up.)
- Begun accepting lease-purchases. For this program, the company requires a $500 non-refundable down payment and monthly payments that cover debt service, maintenance and common-area fees.
- Started an advertising campaign (previously prospects came only by referral) publicizing the 7¾% interest rate now available from Atlanta-area S&Ls, and emphasizing lenders' eagerness to place the money now flowing in.

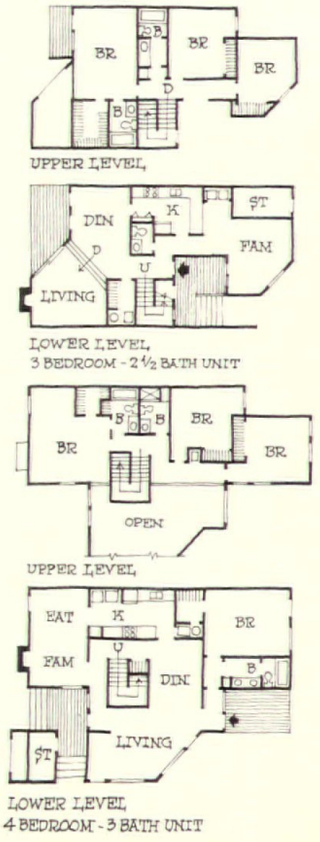


Typical exteriors are shown above, area between clusters below; design is by John Phelps, Arch., Inc. of Atlanta.



Fast sellers *(left)* include two 2-bedroom units containing about 1,550 sq. ft. and a 1,725-sq.-ft. two-bedroom-plus-den unit. At opening, two-bedroom units were priced at $38,000. They now sell for as much as $47,500. Construction is wood frame with pine roof decks and laminated beams. Construction costs averaged $22.78 per sq. ft.

Slow sellers *(right)* are 1,750-sq.-ft., three-bedroom unit and 2,130-sq.-ft., four-bedroom unit. Four-bedroom units were originally priced at $63,000, but the project manager says he has recently offered them for $60,000. Project density is 6.4-units per acre. The site is roughly rectangular, and on one side is bordered by a golf course. Units are oriented either toward the golf course or a pine and hardwood forest; units on golf course went for up to $8,000 premiums. Project includes $45,000 pool and pavilion.



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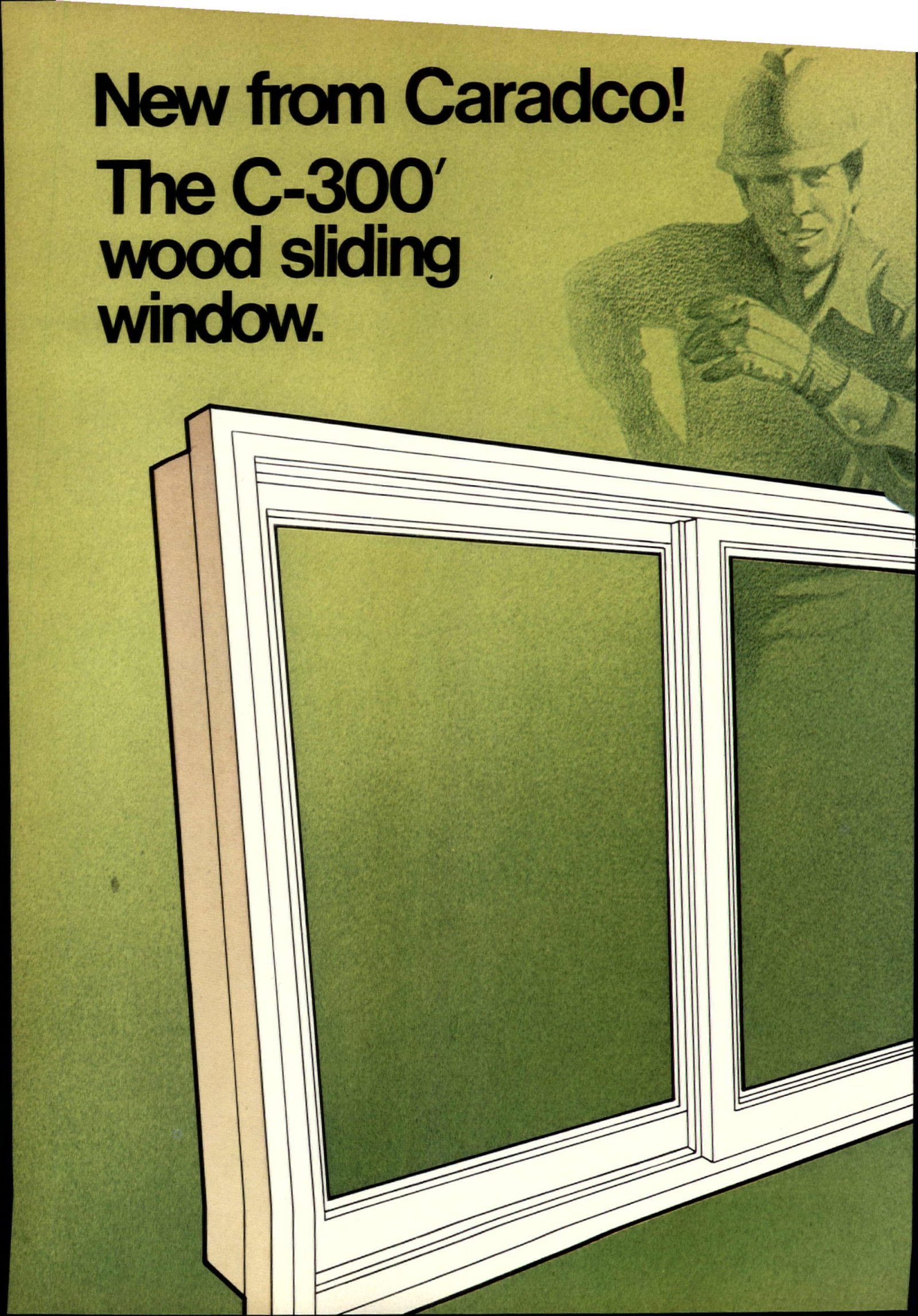

Decorating case history: How we used demographic data to design model-home interiors for the first-time-buyer market

Walnut Hills is a 45-acre, single-family project being developed in Walnut, Calif., which is about 20 miles from downtown Los Angeles. The moderate-price project (a basic three-bedroom, 1,250-sq.-ft. plan sells for $33,900) was opened last year by the Robert H. Grant Corp. just when the economy began going sour.

The market—primarily moderate-income, first-time buyers—is one that has been particularly hurt by inflation and the economic crunch. It is also, according to Grant research, a market that is extremely selective, value conscious and quite aware of upward mobility. So a primary goal of the model-home merchandising program was to zero-in on the country life-style of Walnut Hills, which Grant believed would be recognized by most prospects as a step upward from their urban-apartment environment.

In planning the model interiors *(shown below and on page 49)* we wanted the decor to radiate warmth and livability as well as reinforce the country feeling. But TO PAGE 48

JORDON LAGMAN

In a model for newlyweds, we conveyed the country life-style with a house-and-garden design that extended to the patio, which we accessorized with an abundance of plants and shrubbery.

To achieve the necessary bright, airy feeling indoors, we specified a green, yellow and white color scheme that extended from the yellow carpeting through daisy-print upholstery fabric to the latticework wallpaper print.

Because this model was aimed at young marrieds, the emphasis was on budget decorating; but we still had to stress the move-up life-style. So although wicker furniture—a characteristic of house-and-garden design treatment—was used in the family room *(above)*, we selected traditional furnishings for the living room.

As a further convincer that this model was truly practical for young marrieds, we created special designs for the two secondary bedrooms.

One, next to the master bedroom, was decorated as a nursery to demonstrate that new parents could be close to their baby at night. The other was designed as a hobby/work area, with emphasis on its use as a sewing room. The reason: Many prospects for this model would be looking for ways to cut costs once they bought the house. So there was a good chance the wife would be making draperies, slipcovers and perhaps her own clothing.

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CONTINUED FROM PAGE 47

above all the decorating had to be believable. The reason: This market would be intimidated and scared off by furniture, accessories and wall treatments the prospects couldn't relate to.

So before we began designing the interiors, we envisioned the prototype families who might buy each of the models. Only then did we choose our model themes and select furnishings suitable to the imagined life-style of each typical family.

Those themes were carried over into the project's sales-office design—a natural/eclectic blend, which we achieved by using solid, substantial furniture and lots of

Designed for an older family, one with a son of ten and a daughter of 12, this model featured eclectic decor. In the living room *(right),* the mixture of brown and beige furniture blended comfortably with a contemporary chrome-and-glass coffee table, a traditional display cabinet and the modern tapestry that decorated the paneled wall. To increase the feeling of spaciousness, we used beige carpeting.

We imagined that the son would collect model boats. So everything in his bedroom—furniture and accessories—had a nautical flavor. And for the daughter, we created an old-fashioned "Hello Dolly" bedroom motif.

For the more-established family, one with three children, this model was given a country-ranch motif. We strengthened the theme by using a considerable amount of barn siding as paneling and by choosing a squirrel color for the carpeting that ran through the living room into the dining area and family room *(right),* which is part of a country kitchen.

To give this model a maximum feeling of warmth, we used gingham fabric as both upholstery and wallcovering, and provided ample shelf space for displaying family collectibles. A Franklin stove furnished the final warming accent.

The secondary bedrooms were decorated to appeal to each child's interest.

Because the ten-year-old boy played in the Little League, his room became a mini-stadium accessorized with pennants, baseball gloves, scorecards, etc. Abner Doubleday would have been proud.

A 12-year-old girl had a green thumb. So her room was filled with greenery. And the walls were covered with pictures of different kinds of plants.

In a room for the youngest girl—a five-year-old—we created an antique schoolhouse effect. Prized finger-painting artwork decorated the walls, and stuffed animals filled the shelves.

CIRCLE 48 ON READER SERVICE CARD

live plants to offset the heavy look.

The overall model complex was left open and was extensively landscaped. The message was unmistakably clear: Here was an inviting environment where the prospect would feel immediately at ease.

The results. According to Charles Dreyer, Grant's vice president of marketing, the total sales package accomplished the original sales objective in what at the time was a tight market. Actually, 62 homes were sold during the first five months. Says Dreyer: "At Grant, we feel it all hinges on how well you identify your prospect, then tailor your homes to his specific needs."

PHOTOS: JORDON LAGMAN

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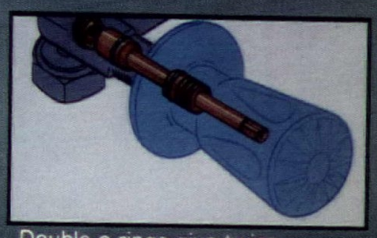

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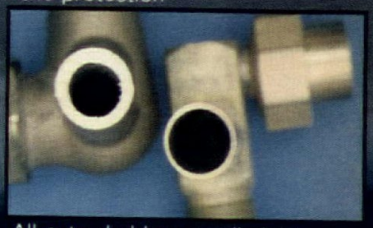

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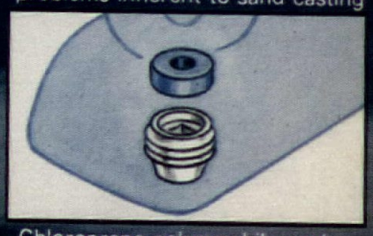

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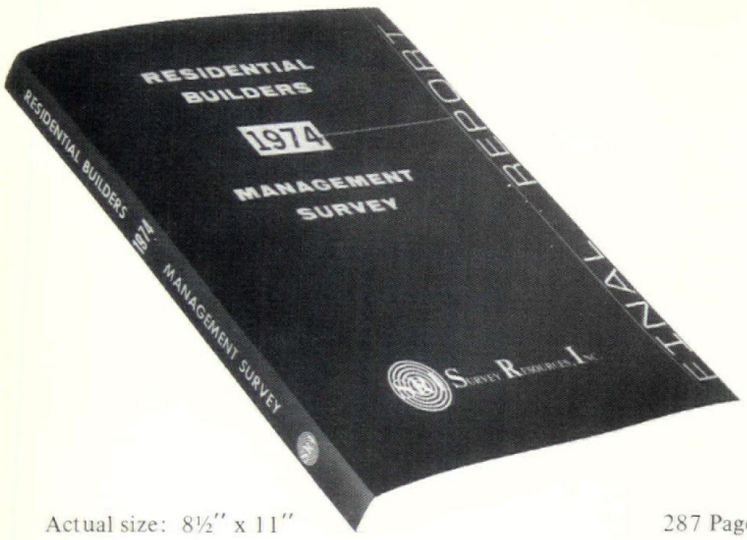

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COMPENSATION METHODS

Just as important as dollars are the policies, practices, procedures, techniques, and methods used in structuring and packaging compensation.

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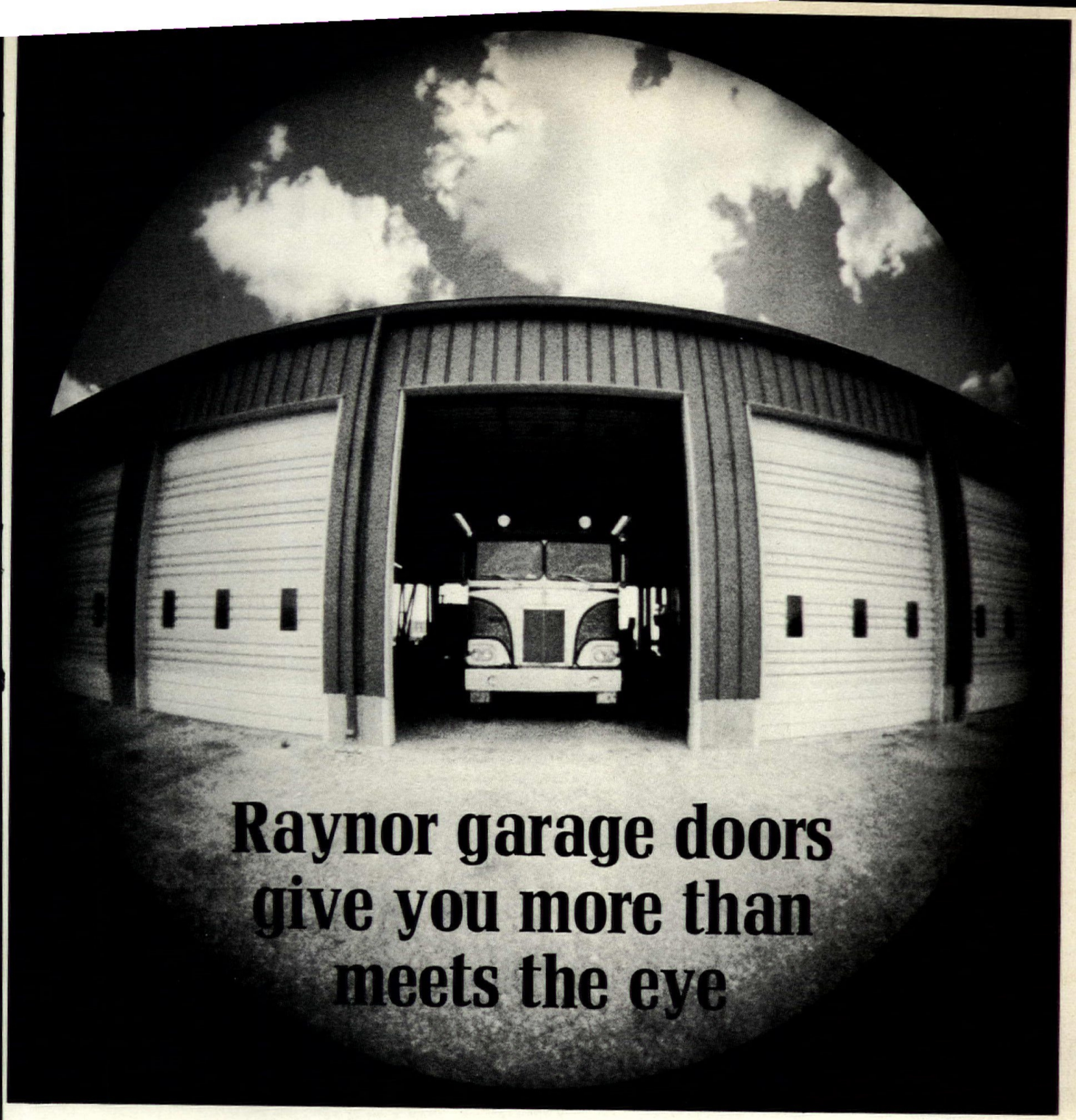

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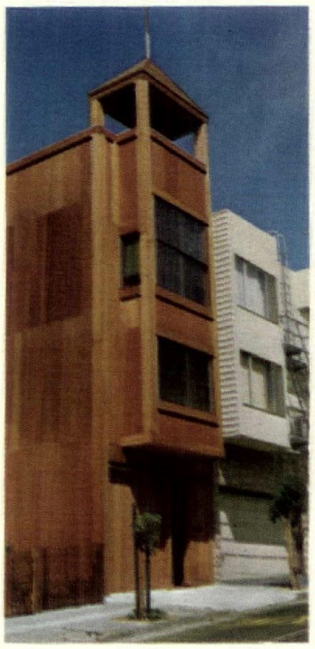

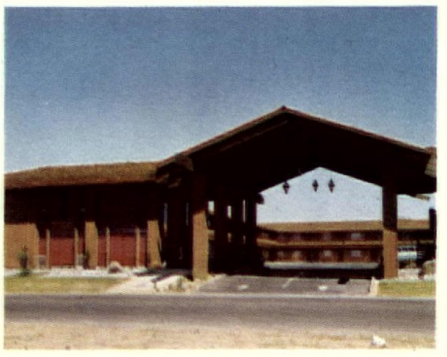

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How should you monitor your competition to further your own success?

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How do you pick—and work with—a good advertising agency?

How much should the ad budget be in your particular market?

What are the three key ingredients in every good ad?

How can you slant your advertising towards a specific market?

Where is the prospect in today's tougher market, and what new advertising approaches will bring him out?

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Can a good PR program make an ad campaign more effective?

What are some of the new ways to use the media?

How can you make referrals really work?

What kinds of communications are most effective after a prospect has visited your project?

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Movable? Model? Garage
Nothing?

What percent of the mercha
dising budget should go into th
sales and model area?

How do you create graphic
that make the sales area and th
models more appealing?

How can you control traffic
the sales and model area?

Model Presentation

How can you minimiz
model-area costs?

How much should you spen
to decorate your models?

When don't you need to de
orate?

What colors turn buyers on
and off?

How can you make on
model do the work of many?

Sales and Sales Training

What motivates today's buy
ers, and how can these motiv
tions be turned into an effectiv
sales program?

What criteria should you us
in determining how to compen
sate your sales staff?

Which face-to-face sale
techniques are most likely t
give results?

How do you train and mot
vate your sales staff to sell **you**
product?

What monitoring system
can you use to make sure you
salesmen are performing at thei
peak?

How can your salesme
reach your prospects most eff
ciently in today's fuel-sh
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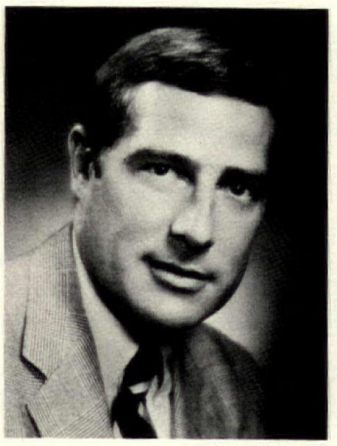
T RESEARCH, ADVERTISING MERCHANDISING, MODEL ING & SALES TECHNIQUES

yne A. Sparks is vice esident, communications Santa Anita Consoli- ted, whose homebuilding osidiary, Grant Corp., is e of the country's major velopers. Formerly, as rporate vice president of rketing for Grant Corp., supervised the firm's rketing and merchan- ing operations in North- and Southern California, vada, Arizona and Ha- ii. Before joining Grant rp., Mr. Sparks directed rketing and sales opera- ns for Coronado Cays d for Rancho Bernardo, ll-known projects in the n Diego area.

W. E. Mitchell is president and senior associate of Market Profiles, a marketing, merchandising, sales and research consulting firm. Previously, he was director of residential marketing for Walker & Lee, Inc., one of the West's largest residential real-estate firms, and later became general sales manager for Deane Brothers, Inc., a builder widely respected as one of the most creative marketeers in the country. Market Profiles was formed in 1968.



Jack Risbrough is founder and head of Jack Risbrough Associates, a consulting firm that provides comprehensive marketing services specially designed for the small and medium-volume builder. Before founding his own firm he held a number of key marketing positions: general sales manager of a division of American Housing Guild, project manager for Deane Brothers, Inc., national marketing vice president of J. H. Snyder, Co., and national marketing vice president of Deane & Deane, Inc. He is currently Region II chairman of the Sales and Marketing Council of NAHB.

Dave Stone is president of The Stone Institute, Inc., a market and management consulting firm with offices in California, Minnesota, Missouri and Washington, D.C. He has been both a realtor and a builder, and served as general manager of Stone & Schulte Inc., a realty firm that represented many of the San Francisco Bay Area's most successful builders. He is best known as homebuilding's leading expert on sales and sales training; over the last 20 years he has lectured on these subjects to more than 100,000 industry people in 50 states, and he has authored eight books on real-estate selling.

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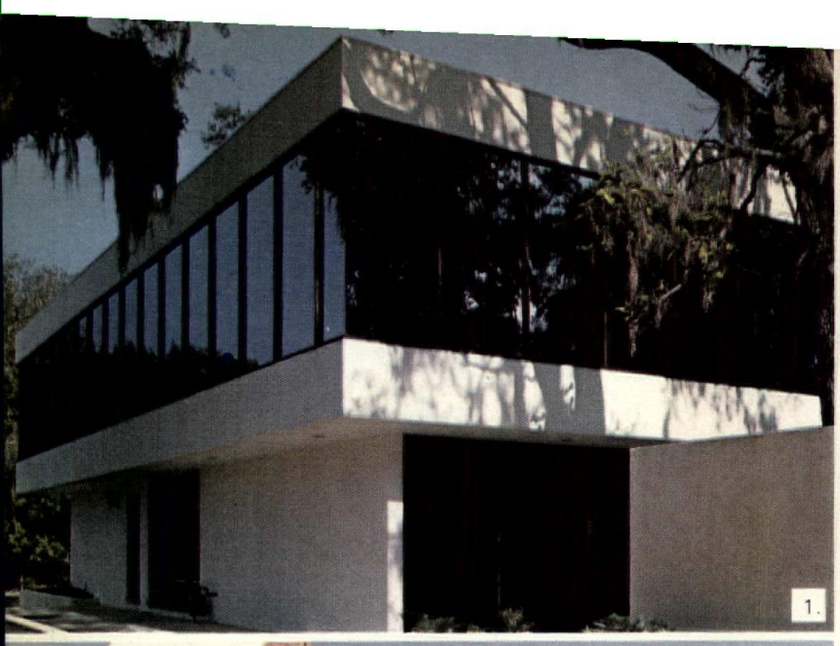
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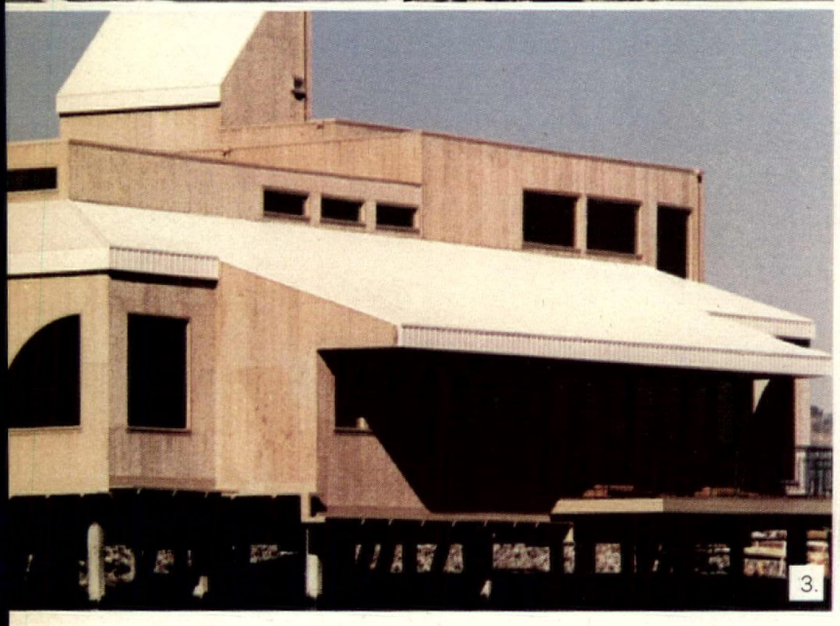
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   Architect: Arkhora & Associates
   Contractor: Hails Construction

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CIRCLE 58 ON READER SERVICE CARD

Editorial

Coming: better business—but not business as usual

Things seem to be looking up a bit for housing.

Traffic is up in most parts of the country, and sales are too. The plummeting prime is pulling more and more money into thrift institutions, and this will make mortgages more available. The monstrous inventory hanging over from last year is beginning to diminish, and the $2,000 tax credit for homebuyers should speed up the deinventorying process even more.

All of this is certainly good news, and it's very tempting to start thinking about business as usual within a matter of months.

But watch out. It isn't going to be business as usual next month, next year, or ten years from now. Housing has been through (and is still going through, for that matter) a wringer that is changing the industry permanently and, in some cases, drastically. And if you charge ahead without facing up to these changes you could find yourself in big trouble.

Financing will see the biggest change. Thanks to the inordinate flow of REIT money into what recently became sick projects, and thanks to a lot of very dubious loans of their own, commercial banks have been badly burned in real estate. When they get through swallowing their write-downs they may think twice about going back into the fire. And if they do they're going to be a lot more careful about how much they lend, for what, and to whom. This will trigger a chain reaction affecting everything—project size, financing programs, marketing programs, and ultimately the kind of company that can make it in housing.

Construction costs will force changes too. As you'll see on the pages immediately following, basic costs are up, and they'll almost certainly keep climbing as the building pace increases. This will mean more and smaller houses on a given site if housing's to stay in the mass market's reach.

All of the foregoing factors will, of course, create new attitudes and concerns on the part of the buyer, and new products and new ways to market them will emerge.

In other words, what we're going to have is a new housing industry. In the coming months, HOUSE & HOME will explore that new industry in a series of articles. The first, on zoning and related questions, appears on page 84 of this issue.

It's easy to follow the pack, but where did it get you last time?

Now that things are apparently starting to roll again, we can look for vast numbers of developers to toss aside the painfully learned lessons of the past 18 months and jump on a bandwagon again. You hear people saying things like this:

The single-family detached house is the only thing that will sell, and the bottom-priced, stripped-down version is the only part of that market to be in.

And on the other side of the coin:

Condos are sure death, as proven by 1) the huge inventory we still have and 2) the fact that almost all of the projects currently in imminent foreclosure trouble are condo projects.

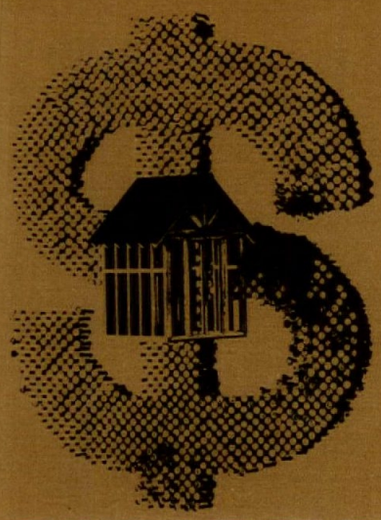
Let's apply a little hindsight. Condos are in trouble because a couple of years ago everyone decided *they* were the only market to be in, and they were built and overbuilt.

It's no news that almost all buyers would rather have a single-family home than a condo; surveys have been showing that for years. But a lot of people can't afford the space they need in a single-family, and the condo represents an affordable compromise. Also, a lot of families without children prefer the no-maintenance lifestyle of a condo. So condos, or some other form of multi-family unit, will remain a very viable market.

Conversely, the bottom-of-the-line, basic single-family house can easily be overbuilt. And one of the unpleasant side effects—acres and acres of the old ticky-tacky box—would give housing a black eye it can ill afford right now.

Deciding what product to build is the crucial decision. Study the market, bring in outside market analysts if necessary, and monitor your competition relentlessly. Forget the bandwagon. As a lot of developers and lenders have discovered in the past few months, it can provide a quick trip to disaster.

—MAXWELL C. HUNTOON JR.



BUILDING COSTS
WHAT'S UP, WHERE, AND HOW MUCH?

The answers are everything, everywhere and too much.

That's the grim but inescapable conclusion that jumps out of the next 13 pages—a report of key homebuilding costs in 102 cities across the country at the start of 1975, and a comparison with the same costs a year ago.

There's no clear pattern to the cost hikes. For example:

The cost of insulation in place has risen brutally—anywhere from 30% to 100% during 1974. During 1973 it rose only about 4%.

Roofing is up about 15%, compared with roughly half that percentage last year.

Millwork rose by about the same proportion as last year—from 10% to 23%.

But drywall, which showed a 40% to 60% jump last year, rose less than 10% in this report. Framing lumber, up as much as 17% at the end of 1973 rose less than 10% last year. And sheathing actually dropped as much as 20% during 1974.

Just to compound the conclusion, all costs must be viewed within the framework of a very bad 1974 for housing. As starts pick up this year, so will the costs of many materials—especially lumber—and they'll take in-place costs with them.

This report consists of two parts

The first, at right, is a table of adjustment factors showing the city-to-city variations in labor, material and in-place costs. Those factors are to be used with the pages that follow them.

The second, starting overleaf, is 12 pages of cost breakdowns of key operations: crew size, average output per day, material, labor and total costs, and the average cost change from the start of 1974.

What's the source of this report?

It's the 1975 *Dodge Manual for Building Construction, Pricing and Scheduling,** generally considered the most authoritative compilation of cost data in the world. The 226-page manual is published by Dodge Building Cost Service, a division of McGraw-Hill Information Systems Co.

* The manual is available from Dodge Building Cost Service, Room 2149, McGraw-Hill Information Systems Co., 1221 Avenue of the Americas, New York, N.Y. 10020. To order, send $17.95, plus your local or state tax where applicable. If you wish to be billed there is a $1.35 charge. Discounts are available on bulk orders.

CITY	LABOR	MATERIALS	TOTAL
Albany, N.Y.	1.00	0.93	0.97
Albuquerque, N.M.	0.82	1.03	0.93
Amarillo, Tex.	0.72	1.01	0.87
Anchorage, Alaska	1.36	1.12	1.24
Atlanta, Ga.	0.83	0.89	0.86
Austin, Tex.	0.75	0.99	0.87
Baltimore, Md.	0.86	1.06	0.96
Billings, Mont.	0.83	0.96	0.87
Birmingham, Ala.	0.80	0.88	0.84
Bismarck, N.D.	0.76	0.90	0.83
Boise, Idaho	0.81	0.92	0.87
Boston, Mass.	1.05	1.03	1.04
Bridgeport, Conn.	1.03	0.99	1.01
Buffalo, N.Y.	1.04	1.07	1.06
Burlington, Vt.	0.84	1.09	0.97
Charleston, S.C.	0.60	0.89	0.75
Charleston, W.Va.	0.92	1.01	0.97
Charlotte, N.C.	0.63	0.91	0.77
Chattanooga, Tenn.	0.78	0.95	0.87
Cheyenne, Wyo.	0.83	0.84	0.84
Chicago, Ill.	1.06	0.92	0.99
Cincinnati, Ohio	1.05	1.01	1.03
Cleveland, Ohio	1.12	1.01	1.07
Columbia, S.C.	0.61	0.88	0.75
Columbus, Ohio	0.99	0.97	0.98
Dallas, Tex.	0.82	0.96	0.89
Denver, Colo.	0.91	0.98	0.95
Des Moines, Iowa	0.88	1.12	1.00
Detroit, Mich.	1.13	1.13	1.13
Duluth, Minn.	0.95	1.00	0.98
Edmonton, Alta., Can.	0.78	0.99	0.89
El Paso, Tex.	0.66	1.02	0.84
Evansville, Ind.	0.92	0.91	0.92
Halifax, N.S., Can.	0.67	1.00	0.84

CITY	AVERAGE ADJUSTMENT		
	LABOR	MATERIALS	TOTAL
Harrisburg, Pa.	0.95	1.00	0.98
Hartford, Conn.	1.03	1.00	1.02
Honolulu, Hawaii	0.88	1.12	1.00
Houston, Tex.	0.85	0.86	0.86
Indianapolis, Ind.	0.94	0.89	0.92
Jackson, Miss.	0.69	0.89	0.79
Jacksonville, Fla.	0.82	0.97	0.90
Kansas City, Mo.	1.00	0.95	0.98
Lansing, Mich.	0.97	0.92	0.95
Las Vegas, Nev.	1.12	0.93	1.03
Little Rock, Ark.	0.73	0.88	0.81
Los Angeles, Calif.	1.12	0.94	1.03
Louisville, Ky.	0.93	0.88	0.91
Madison, Wis.	0.91	0.96	0.94
Manchester, N.H.	0.87	1.05	0.96
Memphis, Tenn.	0.81	1.05	0.93
Miami, Fla.	1.07	0.87	0.97
Milwaukee, Wis.	1.02	0.94	0.98
Minneapolis, Minn.	0.92	1.05	0.99
Mobile, Ala.	0.88	0.87	0.88
Montreal, Que., Can.	0.78	0.96	0.87
Nashville, Tenn.	0.72	0.93	0.83
Nassau-Suffolk, N.Y.	1.23	1.06	1.15
Newark, N.J.	1.08	0.98	1.03
New Orleans, La.	0.84	0.89	0.87
New York, N.Y.	1.22	1.11	1.17
Norfolk, Va.	0.68	0.88	0.78
Oklahoma City, Okla.	0.83	0.94	0.89
Omaha, Neb.	0.90	1.10	1.00
Ottawa, Ont., Can.	0.86	0.91	0.89
Peoria, Ill.	0.97	1.06	1.02
Philadelphia, Pa.	1.07	1.03	1.05
Phoenix, Ariz.	0.98	0.89	0.94
Pittsburgh, Pa.	1.07	1.04	1.06

CITY	AVERAGE ADJUSTMENT		
	LABOR	MATERIALS	TOTAL
Portland, Me.	0.81	1.04	0.93
Portland, Ore.	0.95	0.94	0.95
Providence, R.I.	0.98	1.08	1.03
Quebec City, Que., Can.	0.70	1.07	0.89
Rapid City, S.D.	0.69	1.04	0.87
Regina, Sask., Can.	0.66	1.00	0.83
Reno, Nev.	1.04	0.94	0.99
Richmond, Va.	0.71	0.97	0.84
Rochester, N.Y.	1.06	1.03	1.05
Sacramento, Calif.	1.04	0.98	1.01
St. Louis, Mo.	1.01	1.00	1.01
Salt Lake City, Utah	0.92	0.97	0.95
San Diego, Calif.	1.13	0.95	1.04
San Francisco, Calif.	1.16	1.07	1.12
Savannah, Ga.	0.72	0.91	0.82
Seattle, Wash.	0.96	1.03	1.00
Shreveport, La.	0.73	0.93	0.83
Sioux Falls, S.D.	0.77	0.99	0.88
Spokane, Wash.	0.99	1.01	1.00
Springfield, Ill.	0.91	1.05	0.98
Springfield, Mass.	0.99	1.03	1.01
Syracuse, N.Y.	1.08	1.12	1.10
Tampa, Fla.	0.88	1.04	0.96
Toronto, Ont., Can.	0.92	0.91	0.92
Trenton, N.J.	1.04	1.07	1.06
Tulsa, Okla.	0.83	0.94	0.89
Tucson, Ariz.	1.00	0.95	0.98
Vancouver, B.C., Can.	0.81	1.01	0.91
Washington, D.C.	0.94	0.98	0.96
Wichita, Kan.	0.89	1.00	0.95
Wilmington, Del.	1.03	0.96	1.00
Windsor, Ont., Can.	0.84	1.03	0.94
Winnipeg, Man., Can.	0.70	0.92	0.81
Youngstown, Ohio	1.00	1.01	1.01

Here's what you need to know to use the cost tables:

The construction process is broken down into selected basic jobs or components. Thirteen major groupings are covered in this order: earthwork, cast-in-place concrete, unit masonry, rough carpentry, finish carpentry, insulation, roofing and siding, doors and frames, windows, wallboard, tile, flooring, painting.

For each component the table shows the size and makeup of the crew and the crew's daily output. It also shows unit costs broken down into materials and labor and then totaled.

Costs, calculated late in 1974, reflect the impact of last year's energy crisis and the material shortages that followed.

Labor costs are based on union scale and are typical of large jobs where supervision is poorer and productivity therefore lower than on small jobs.

Some abbreviations may be unfamiliar. Check this list before reading the tables.

BL—brick layer
CM—cement mason
CP—carpenter
csf—hundred square feet
EO—equipment operator
LA—laborer
mf bm—thousand feet board measure
m—one thousand
opg—opening
PA—painter
RF—roofer
SI—structural ironworker
SM—sheetmetal worker
TM—teamster
TS—tile setter

BREAKDOWN OF CONSTRUCTION COSTS

DESCRIPTION		OUTPUT Crew	Per Day	Unit	UNIT COSTS Labor	Material	Total	% CHANGE FROM 1974
EARTHWORK								
SITE GRADING								
Earth excavation, average soil on minimum of 5 acre site. Equipment shown as material cost.								
Balanced cut & fill w/max. haul 500′: front end loader	1 CY	1 LA, 1 EO	350	cu. yd.	0.48	0.73	1.21	+7.1
	2 CY	1 LA, 1 EO	400	cu. yd.	0.42	0.60	1.02	+7.4
	3 CY	1 LA, 1 EO	520	cu. yd.	0.32	0.47	0.79	+6.8
rubber-tired scraper	10 CY	1 LA, 1 EO	720	cu. yd.	0.23	0.40	0.63	+6.8
	15 CY	1 LA, 1 EO	1000	cu. yd.	0.17	0.30	0.47	+6.8
Balanced cut & fill with 1000′ haul: rubber-tired scraper	10 CY	1 LA, 1 EO	600	cu. yd.	0.28	0.62	0.90	+7.1
	15 CY	1 LA, 1 EO	850	cu. yd.	0.20	0.42	0.62	+6.9
	20 CY	1 LA, 1 EO	1050	cu. yd.	0.16	0.33	0.49	+8.9
scraper with dozer	10 CY	1 LA, 1 EO	550	cu. yd.	0.31	0.71	1.02	+8.5
	15 CY	1 LA, 1 EO	800	cu. yd.	0.21	0.51	0.72	+7.5
	20 CY	1 LA, 1 EO	975	cu. yd.	0.17	0.40	0.57	+7.5
tractor scraper	10 CY	1 LA, 1 EO	430	cu. yd.	0.39	0.85	1.24	+7.8
	15 CY	1 LA, 1 EO	600	cu. yd.	0.28	0.65	0.93	+6.9
	20 CY	1 LA, 1 EO	780	cu. yd.	0.21	0.52	0.73	+7.4
Cut & load on trucks. Hauling not included. Open site:								
loader	1 CY (earth)	1 LA, 1 EO	650	cu. yd.	0.26	0.50	0.76	+7.0
	2 CY (earth)	1 LA, 1 EO	1100	cu. yd.	0.15	0.34	0.49	+8.9
	3 CY (earth)	1 LA, 1 EO	1500	cu. yd.	0.11	0.24	0.35	+9.4
	1 CY (clay)	1 LA, 1 EO	450	cu. yd.	0.37	0.77	1.14	+6.5
	2 CY (clay)	1 LA, 1 EO	620	cu. yd.	0.27	0.58	0.85	+7.6
	3 CY (clay)	1 LA, 1 EO	800	cu. yd.	0.21	0.42	0.63	+6.8
Less than 5 acre site add to labor & materials: 3-5 acres	25%							0
1-3 acres	50%							0
less than 1 acre	100%							0
Highway congestion, road crossings, add to labor & materials:	50%							0
Site grading, overall grading to approx. grade with cut & fill limited to 6″:								
uncongested	less than 1 acre	1 LA, 1 EO	800	sq. yd.	0.21	0.13	0.34	+6.3
	1-5 acres	1 LA, 1 EO	1000	sq. yd.	0.17	0.11	0.28	+7.7
	over 5 acres	1 LA, 1 EO	1200	sq. yd.	0.14	0.09	0.23	+9.5
moderate congestion add to labor & materials: 50%								0

DESCRIPTION		OUTPUT Crew	Per Day	Unit	UNIT COSTS Labor	Material	Total	% CHANGE FROM 1974
EARTHWORK continued								
heavy congestion add to labor & materials: 100%								0
Truck hauling, including loading time:								
1 mile round trip	5 CY	1 TM	150	cu. yd.	0.48	0.53	1.01	+7.4
	8 CY	1 TM	200	cu. yd.	0.36	0.48	0.84	+7.7
	12 CY	1 TM	280	cu. yd.	0.26	0.40	0.66	+8.2
3 mile round trip	5 CY	1 TM	100	cu. yd.	0.72	0.77	1.49	+6.4
	8 CY	1 TM	135	cu. yd.	0.53	0.67	1.20	+7.1
	12 CY	1 TM	200	cu. yd.	0.36	0.56	0.92	+8.2
6 mile round trip	5 CY	1 TM	75	cu. yd.	0.96	0.95	1.91	+6.1
	8 CY	1 TM	110	cu. yd.	0.66	0.84	1.50	+7.9
	12 CY	1 TM	150	cu. yd.	0.48	0.67	1.15	+7.5
Heavy traffic add:	50-100%							0
Off-site disposal add:	dump charges							
BUILDING EXCAVATION								
Basement excavation, machine work only. No shoring pumping or lay-out. Excavation loaded on trucks								
hauling not included:								
front-end loader	1 CY (earth)	1 LA, 1 EO	400	cu. yd.	0.42	0.70	1.12	+7.7
	2 CY (earth)	1 LA, 1 EO	600	cu. yd.	0.28	0.48	0.76	+7.0
	1 CY (clay)	1 LA, 1 EO	300	cu. yd.	0.56	0.99	1.55	+7.6
	2 CY (clay)	1 LA, 1 EO	450	cu. yd.	0.37	0.64	1.01	+7.5
	1 CY (hard pan)	1 LA, 1 EO	200	cu. yd.	0.85	1.50	2.35	+7.8
	2 CY (hard pan)	1 LA, 1 EO	300	cu. yd.	0.56	0.98	1.54	+7.7
Trench or pier excavation w/backhoe. Earth piled								
adjacent to excavation, no sheeting or pumping:								
to 4′ deep	1/2 CY	1 LA, 1 EO	100	cu. yd.	1.70	1.74	3.44	+7.2
	3/4 CY	1 LA, 1 EO	140	cu. yd.	1.21	1.33	2.54	+7.2
	1 CY	1 LA, 1 EO	170	cu. yd.	1.00	0.92	1.92	+7.3
4′ to 10′ deep	1/2 CY	1 LA, 1 EO	80	cu. yd.	2.12	2.08	4.20	+6.9
	3/4 CY	1 LA, 1 EO	115	cu. yd.	1.47	1.62	3.09	+6.9
	1 CY	1 LA, 1 EO	140	cu. yd.	1.21	1.33	2.54	+7.2
For clay add to labor & materials: 50%								0
For hard pan add to labor & materials: 100%								0
CAST-IN-PLACE CONCRETE								
Placing costs only. Materials cost is for placing equipment:								
footings under good conditions								
	20-50 cu. yds.	5 LA, 1 CM	40	cu. yd.	11.59	0.61	12.20	+3.5
	over 50 cu. yds.	7 LA, 1 CM	70	cu. yd.	8.75	0.50	9.25	+3.6
footings under difficult conditions								
	20-50 cu. yds.	6 LA, 1 CM	25	cu. yd.	21.52	7.48	29.00	+5.0
	over 50 cu. yds.	8 LA, 1 CM	50	cu. yd.	13.74	4.98	18.72	+5.2
walls under good conditions		5 LA, 1 CM	35	cu. yd.	13.25	0.74	13.99	+3.5
walls under difficult conditions		6 LA, 1 CM	25	cu. yd.	21.52	7.48	29.00	+5.0
slabs w/float finish	on grade	6 LA, 2 CM	50	cu. yd.	12.59	0.24	12.83	+3.0
	above grade	6 LA, 2 CM	50	cu. yd.	12.59	4.98	17.57	+5.0
columns & beams		6 LA, 1 CM	30	cu. yd.	17.93	6.99	24.92	+5.2
Winter cast-in-place extra costs:								
add to material cost				cu. yd.		0.67	0.67	+11.7
add to labor cost	10%							
add to finishing cost	20%							
for heat & protection		1 LA	50	cu. yd.	1.48	1.24	2.72	+6.7
UNIT MASONRY								
BRICK MASONRY								
Masonry prices are for all labor & materials including hoisting, scaffolding and cleaning straight								
walls. Productivity shown is based on average output. Since wide variations occur, estimator								

BREAKDOWN OF CONSTRUCTION COSTS

DESCRIPTION		OUTPUT Crew	Per Day	Unit	UNIT COSTS Labor	Material	Total	% CHANGE FROM 1974
UNIT MASONRY continued								
should adjust for actual production. Common brick:								
red clay	4" back-up	4 BL, 2 LA	2	m	273.60	114.00	387.60	+4.1
	8" back-up	4 BL, 2 LA	2.1	m	260.57	120.00	380.57	+4.9
	12" wall struck joints	4 BL, 2 LA	2.2	m	248.72	124.00	372.72	+5.7
	16" wall struck joints	4 BL, 2 LA	2.3	m	237.91	124.00	361.91	+5.8
	4" wall used as face brick	4 BL, 2 LA	1.6	m	342.00	117.00	459.00	+4.5
Face brick:								
red clay, standard size running bond	4" veneer	4 BL, 2 LA	1.5	m	364.80	184.00	548.80	+8.3
special bonds 4" veneer	4" cavity wall	4 BL, 2 LA	1.5	m	364.80	189.00	553.80	+9.0
	full headers at 6th course	4 BL, 2 LA	1.4	m	390.85	184.00	574.85	+7.5
	snap headers at 6th course	4 BL, 2 LA	1.4	m	390.85	190.00	580.85	+7.4
	Flemish, full header at 6th course	4 BL, 2 LA	1.4	m	390.85	182.00	572.85	+7.3
special types, standard size								
	glazed brick 4" veneer	4 BL, 2 LA	1.4	m	390.85	232.00	622.85	+5.6
	sand-line brick 4" veneer	4 BL, 2 LA	1.5	m	364.80	173.00	537.80	+7.4
special sizes, 4" veneer	scantled brick, moderate	4 BL, 2 LA	1.2	m	456.00	194.00	650.00	+7.2
	jumbo	4 BL, 2 LA	1.4	m	390.85	226.00	616.85	+6.5
	Norman	4 BL, 2 LA	1.5	m	364.80	246.00	610.80	−2.1
	Roman	4 BL, 2 LA	1.4	m	390.85	259.00	649.85	−2.4
CONCRETE UNIT MASONRY								
Block back-up hollow cinder block, 8"x16":	2" furring "soap"	2 BL, 1 LA	300	sq. ft.	0.91	0.37	1.28	+12.3
	3" furring "soap"	2 BL, 1 LA	280	sq. ft.	0.97	0.40	1.37	+11.4
	4" block back-up	2 BL, 1 LA	260	sq. ft.	1.05	0.42	1.47	+8.1
	6" block back-up	2 BL, 1 LA	230	sq. ft.	1.19	0.48	1.67	+8.4
	8" block back-up	2 BL, 1 LA	200	sq. ft.	1.36	0.54	1.90	+7.3
	10" block back-up	2 BL, 1 LA	170	sq. ft.	1.61	0.68	2.29	+9.6
	12" block back-up	2 BL, 1 LA	140	sq. ft.	1.95	0.76	2.71	+7.5
Block back-up, concrete load bearing, 75% solid:	2" furring "soap"	2 BL, 1 LA	295	sq. ft.	0.92	0.39	1.31	+11.0
	3" furring "soap"	2 BL, 1 LA	275	sq. ft.	0.99	0.42	1.41	+9.3
	4" block back-up	2 BL, 1 LA	255	sq. ft.	1.07	0.43	1.50	+5.6
	6" block back-up	2 BL, 1 LA	225	sq. ft.	1.21	0.50	1.71	+6.2
	8" block back-up	2 BL, 1 LA	195	sq. ft.	1.40	0.67	2.07	+11.3
Block foundation walls, cinder block, 8"x16":	8" hollow load-bearing	2 BL, 1 LA	200	sq. ft.	1.36	0.62	1.98	+7.6
	8" full solid	2 BL, 1 LA	200	sq. ft.	1.36	0.73	2.09	*
	12" hollow load-bearing	2 BL, 1 LA	135	sq. ft.	2.02	0.88	2.90	+7.4
ROUGH CARPENTRY								
DECKING								
Wood decking:	3" cedar plank	1 CP	150	sq. ft.	0.62	1.43	2.05	+10.8
	4" cedar plank	1 CP	125	sq. ft.	0.75	1.71	2.46	+11.3
	3" white fir plank	1 CP	150	sq. ft.	0.62	1.28	1.90	+10.5
	4" white fir plank	1 CP	125	sq. ft.	0.75	1.57	2.32	+11.0
	3" laminated plank	1 CP	150	sq. ft.	0.62	1.14	1.76	+10.0
	4" laminated plank	1 CP	125	sq. ft.	0.75	1.43	2.18	+10.7
Floor planks T&G, fir:	2"x6"	1 CP	500	bd. ft.	0.18	0.29	0.47	−4.1
	2"x10"	1 CP	600	bd. ft.	0.15	0.29	0.44	−4.4
	3"x6"	1 CP	600	bd. ft.	0.15	0.35	0.50	+2.0
LIGHT FRAMING								
Girders:	10"x16"	1 CP	850	bd. ft.	0.11	0.41	0.52	+10.6
	12"x12"	1 CP	800	bd. ft.	0.11	0.40	0.51	+8.5
Headers:	2"x8"	1 CP	230	bd. ft.	0.41	0.24	0.65	+8.3
	2"x10"	1 CP	260	bd. ft.	0.36	0.24	0.60	+7.1
Joists:	2"x6"	1 CP	350	bd. ft.	0.27	0.24	0.51	+8.5
	2"x8"	1 CP	360	bd. ft.	0.26	0.24	0.50	+8.7

*No comparable figures from 1974

BREAKDOWN OF CONSTRUCTION COSTS

DESCRIPTION		OUTPUT			UNIT COSTS			% CHANGE FROM 1974
		Crew	Per Day	Unit	Labor	Material	Total	
ROUGH CARPENTRY continued								
Joists:	2″x10″	1 CP	380	bd. ft.	0.24	0.24	0.48	+6.7
	2″x12″	1 CP	400	bd. ft.	0.23	0.25	0.48	+9.1
Plates:	2″x4″	1 CP	200	bd. ft.	0.47	0.24	0.71	+7.6
	2″x6″	1 CP	250	bd. ft.	0.37	0.24	0.61	+7.0
Post & Girders:	4″x4″	1 CP	350	bd. ft.	0.27	0.25	0.52	+8.3
	4″x6″	1 CP	390	bd. ft.	0.24	0.26	0.50	+8.7
Rafters:	2″x6″	1 CP	340	bd. ft.	0.27	0.24	0.51	+8.5
	2″x8″	1 CP	355	bd. ft.	0.26	0.24	0.50	+8.7
	2″x10″	1 CP	370	bd. ft.	0.25	0.24	0.49	+8.9
Rafters hip & valley:		1 CP	300	bd. ft.	0.31	0.25	0.56	+7.7
Roof cants:	4″x4″	1 CP	350	ln. ft.	0.27	0.33	0.60	+9.1
	6″x6″	1 CP	300	ln. ft.	0.31	0.49	0.80	+8.1
Roof curbs:	2″x6″	1 CP	210	bd. ft.	0.44	0.24	0.68	+6.3
	2″x8″	1 CP	230	bd. ft.	0.41	0.24	0.65	+8.3
	2″x10″	1 CP	260	bd. ft.	0.36	0.25	0.61	+7.0
Rough stair stringers:	2″x8″	1 CP	100	bd. ft.	0.94	0.24	1.18	+5.4
	2″x10″	1 CP	120	bd. ft.	0.78	0.24	1.02	+5.2
	2″x12″	1 CP	140	bd. ft.	0.67	0.25	0.92	+5.7
Rough bucks-doors:	2″x6″	1 CP	200	bd. ft.	0.47	0.25	0.72	+7.5
	2″x8″	1 CP	250	bd. ft.	0.37	0.25	0.62	+6.9
	2″x10″	1 CP	300	bd. ft.	0.31	0.26	0.57	+7.5
Rough bucks-windows:	2″x6″	1 CP	200	bd. ft.	0.47	0.25	0.72	+7.5
	2″x8″	1 CP	250	bd. ft.	0.37	0.25	0.62	+6.9
	2″x10″	1 CP	300	bd. ft.	0.31	0.26	0.57	+7.5
Sills & Plates:	4″x6″	1 CP	350	bd. ft.	0.27	0.26	0.53	+8.2
Sleepers, treated:	2″x4″	1 CP	200	bd. ft.	0.47	0.32	0.79	+6.8
	2″x6″	1 CP	280	bd. ft.	0.33	0.32	0.65	+6.6
	2″x8″	1 CP	360	bd. ft.	0.26	0.32	0.58	+7.4
Studs:	2″x4″	1 CP	335	bd. ft.	0.28	0.24	0.52	+8.3
	2″x6″	1 CP	435	bd. ft.	0.21	0.24	0.45	+7.1
	2″x8″	1 CP	470	bd. ft.	0.20	0.24	0.44	+10.0
Wood firestops:	2″x8″	1 CP	280	bd. ft.	0.33	0.25	0.58	+7.4
	2″x10″	1 CP	310	bd. ft.	0.30	0.25	0.55	+7.8
	2″x12″	1 CP	340	bd. ft.	0.27	0.26	0.53	+8.2
SHEATHING								
Walls:	3/8″ plyscore	1 CP	560	sq. ft.	0.16	0.17	0.33	−15.4
	1/2″ plyscore	1 CP	535	sq. ft.	0.17	0.19	0.36	−20.0
	5/8″ plyscore	1 CP	500	sq. ft.	0.18	0.25	0.43	−12.2
	fiber-board, insulated	1 CP	470	sq. ft.	0.20	0.27	0.47	+9.3
	1″x8″ T&G	1 CP	450	mf. bm.	0.21	0.23	0.44	+4.8
Roof:	1″x8″ boards	1 CP	440	mf. bm.	0.21	0.24	0.45	+7.1
	1/2″ plyscore	1 CP	500	sq. ft.	0.18	0.19	0.37	−19.6
	5/8″ plyscore	1 CP	480	sq. ft.	0.19	0.25	0.44	−12.0
	3/4″ plyscore	1 CP	440	sq. ft.	0.21	0.31	0.52	−3.7
SUBFLOORING								
	1/2″ plyscore	1 CP	630	sq. ft.	0.15	0.19	0.34	−19.0
	5/8″ plyscore	1 CP	600	sq. ft.	0.15	0.23	0.38	−17.4
	3/8″ particleboard	1 CP	550	sq. ft.	0.17	0.12	0.29	+7.4
	5/8″ particleboard	1 CP	520	sq. ft.	0.18	0.14	0.32	+6.7
	3/8″ wood fiber-board	1 CP	550	sq. ft.	0.17	0.14	0.31	+6.9
	5/8″ wood fiber-board	1 CP	520	sq. ft.	0.18	0.21	0.39	+8.3
FINISH CARPENTRY								
WOOD TRIM								
Moldings & trim: casing door or window	2-1/2″ pine	1 CP	240	ln. ft.	0.39	0.28	0.67	+13.6
	3-1/2″ pine	1 CP	220	ln. ft.	0.42	0.35	0.77	+14.9
	2-1/2″ oak	1 CP	180	ln. ft.	0.52	0.55	1.07	+16.3
chair rail	2-1/2″ pine	1 CP	240	ln. ft.	0.39	0.43	0.82	+15.5
	2-1/2″ oak	1 CP	180	ln. ft.	0.52	0.95	1.47	+20.5

BREAKDOWN OF CONSTRUCTION COSTS

DESCRIPTION		OUTPUT			UNIT COSTS			% CHANGE FROM 1974
		Crew	Per Day	Unit	Labor	Material	Total	
FINISH CARPENTRY continued								
cove molding	1″	1 CP	300	ln. ft.	0.31	0.17	0.48	+11.6
	2″	1 CP	300	ln. ft.	0.31	0.26	0.57	+14.0
	3″	1 CP	280	ln. ft.	0.33	0.34	0.67	+15.5
cornice	1″x2″ pine plain	1 CP	240	ln. ft.	0.39	0.17	0.56	+9.8
	1″x4″ pine plain	1 CP	230	ln. ft.	0.41	0.30	0.71	+14.5
	1″x6″ pine plain	1 CP	220	ln. ft.	0.42	0.53	0.95	+17.3
	1″x8″ pine plain	1 CP	210	ln. ft.	0.44	0.66	1.10	+18.3
	1″x10″ pine plain	1 CP	200	ln. ft.	0.47	0.77	1.24	+20.4
	1″x12″ pine plain	1 CP	200	ln. ft.	0.47	0.94	1.41	+21.6
picture molding	3/4″x1-5/8″ pine	1 CP	180	ln. ft.	0.52	0.37	0.89	+14.1
	3/4″x1-5/8″ oak	1 CP	120	ln. ft.	0.78	0.77	1.55	+15.7
shoe molding	3/4″ pine	1 CP	300	ln. ft.	0.31	0.20	0.51	+13.3
	3/4″ oak	1 CP	240	ln. ft.	0.39	0.36	0.75	+15.4
baseboard	1″x4″ pine plain	1 CP	200	ln. ft.	0.47	0.30	0.77	+13.2
	1″x6″ pine plain	1 CP	180	ln. ft.	0.52	0.51	1.03	+15.7
	1″x4″ pine molded	1 CP	175	ln. ft.	0.53	0.54	1.07	+15.1
	1″x6″ pine molded	1 CP	145	ln. ft.	0.65	0.86	1.51	+18.0
	1″x4″ oak plain	1 CP	140	ln. ft.	0.67	0.58	1.25	+14.7
MILLWORK								
Cabinets, prefinished:								
kitchen	base, no countertop							
	24″ deep, 35″ high	1 CP	18	ln. ft.	5.23	49.00	54.23	+23.0
	wall, 12″ deep, 30″ high	1 CP	24	ln. ft.	3.92	32.75	36.67	+23.0
	drawers for base unit	1 CP	10	each	9.41	26.20	35.61	+18.9
	corner base unit	1 CP	8	each	11.77	106.00	117.77	+22.8
	lazy Susan corner base unit	1 CP	8	each	11.77	147.00	158.77	+23.6
	84″ broom closet	1 CP	12	ln. ft.	7.84	98.00	105.84	+23.6
	corner china unit-unfinished pine	1 CP	3	each	31.38	180.00	211.38	+9.8
vanity base cabinets	30″ high w/drawer & door	1 CP	6	ln. ft.	15.69	40.90	56.59	+18.5
	30″ high w/door only	1 CP	6	ln. ft.	15.69	24.50	40.19	+15.7
Countertops: factory-formed stock unit w/4″ backsplash								
plastic laminated top, 7/8″ plastic edge	economy type-3/4″ thick	1 CP	30	ln. ft.	3.13	5.72	8.85	+19.4
	no backsplash	1 CP	24	ln. ft.	3.92	11.46	15.38	+22.5
	with backsplash	1 CP	24	ln. ft.	3.92	14.73	18.65	+23.8
Fireplace mantels:								
built-in-place	plain	1 CP	3	each	31.38	57.31	88.69	+19.5
prefabricated colonial	economy	1 CP	4	each	23.54	65.50	89.04	+22.2
	deluxe	1 CP	2	each	47.08	210.00	257.08	+10.5
Fireplace mantel beams:	3″x10″ hardwood	1 CP	24	ln. ft.	3.92	6.55	10.47	+18.8
	4″x8″ rough type	1 CP	24	ln. ft.	3.92	4.08	8.00	+15.4
	4″x10″ rough type	1 CP	24	ln. ft.	3.92	4.91	8.83	+16.8
Paneling, including furring & layout:								
prefinished, 1/4″ thick, 4′x8′								
	birch	1 CP	260	sq. ft.	0.36	0.90	1.26	+8.6
	oak	1 CP	260	sq. ft.	0.36	0.90	1.26	+8.6
	walnut	1 CP	260	sq. ft.	0.36	0.90	1.26	+8.6
	cherry	1 CP	260	sq. ft.	0.36	0.90	1.26	+8.6
	chestnut	1 CP	200	sq. ft.	0.47	0.94	1.41	*
	mahogany-African	1 CP	275	sq. ft.	0.34	0.96	1.30	+10.2
	mahogany-Lauan	1 CP	275	sq. ft.	0.34	0.36	0.70	+7.7
knotty pine	1/4″ thick	1 CP	260	sq. ft.	0.36	0.56	0.92	+8.2
Pegboard, including furring & layout:								
untempered	1/8″	1 CP	260	sq. ft.	0.36	0.13	0.49	+6.5
	1/4″	1 CP	240	sq. ft.	0.39	0.17	0.56	+5.7
tempered	1/8″	1 CP	240	sq. ft.	0.39	0.22	0.61	+5.2
	1/4″	1 CP	220	sq. ft.	0.42	0.29	0.71	+6.0
Hardboard, including furring & layout:								
plastic-faced	1/8″	1 CP	240	sq. ft.	0.39	0.76	1.15	+8.5
	1/4″	1 CP	200	sq. ft.	0.47	1.04	1.51	+9.4
plain	1/8″	1 CP	260	sq. ft.	0.36	0.09	0.45	+4.7

*No comparable figures from 1974

DESCRIPTION		OUTPUT			UNIT COSTS			% CHANGE FROM 1974
		Crew	Per Day	Unit	Labor	Material	Total	
FINISH CARPENTRY continued								
plain	1/4"	1 CP	240	sq. ft.	0.39	0.13	0.52	+4.0
Shelving:	1"x8" pine	1 CP	120	lin. ft.	0.78	0.65	1.43	+20.2
	1"x10" pine	1 CP	110	lin. ft.	0.85	0.93	1.78	+22.8
	1"x12" pine	1 CP	100	lin. ft.	0.94	1.13	2.07	+24.7
	3/4"x12" plywood edged	1 CP	80	lin. ft.	1.17	0.84	2.01	+18.2
	12" closet shelf & rod	1 CP	32	lin. ft.	2.94	1.88	4.82	+17.6
Stairs: prefabricated	3' wide, oak treads, no handrail	1 CP	16	lin. ft.	5.88	33.75	39.63	+29.1
	3'6" wide, oak treads, no handrail	1 CP	14	lin. ft.	6.72	37.12	43.84	+28.9
	4' wide, oak treads, no handrail	1 CP	12	lin. ft.	7.84	40.50	48.34	+28.5
	open, 3' wide, oak treads, w/handrails	1 CP	10	each	9.41	84.37	93.78	+30.9
	open, 4' wide, oak treads, w/handrails	1 CP	10	each	9.41	92.81	102.22	+31.2
handrails		1 CP	35	lin. ft.	2.69	20.25	22.94	+30.3
balusters	1-1/4"x30" pine	1 CP	16	each	5.88	1.84	7.72	+9.0
	1-1/4"x30" birch	1 CP	16	each	5.88	2.52	8.40	+10.8
WOOD SIDING								
Siding:	1/2"x6" cedar beveled	1 CP	360	sq. ft.	0.26	0.50	0.76	+26.7
	1/2"x8" cedar beveled	1 CP	400	sq. ft.	0.23	0.42	0.65	+20.4
	16" cedar shingles	1 CP	320	sq. ft.	0.29	0.43	0.72	+14.3
	1"x4" redwood T&G	1 CP	290	sq. ft.	0.32	0.80	1.12	+17.9
	1"x8" redwood T&G	1 CP	340	sq. ft.	0.27	0.70	0.97	+14.1
	1"x12" board & batten	1 CP	240	sq. ft.	0.39	0.65	1.04	+22.4
INSULATION								
WALL INSULATION								
Batt fiber glass:	2-1/2"	1 CP	1000	sq. ft.	0.09	0.08	0.17	+21.4
	3-1/2"	1 CP	1000	sq. ft.	0.09	0.11	0.20	+33.3
Mineral fiber batts:	2"	1 CP	770	sq. ft.	0.12	0.14	0.26	+62.5
	3"	1 CP	770	sq. ft.	0.12	0.21	0.33	+83.3
	4"	1 CP	770	sq. ft.	0.12	0.28	0.40	+100.0
Polystyrene:	1"	1 CP	650	sq. ft.	0.14	0.21	0.35	+29.6
	2"	1 CP	650	sq. ft.	0.14	0.43	0.57	+39.0
Polyurethane:	1"	1 CP	650	sq. ft.	0.14	0.34	0.48	+37.0
	2"	1 CP	650	sq. ft.	0.14	0.65	0.79	+43.6
Fire-resistant urethane:	1"	1 CP	750	sq. ft.	0.12	0.38	0.50	+38.9
	2"	1 CP	710	sq. ft.	0.13	0.65	0.78	+47.2
PERIMETER INSULATION								
Fiber glass:	1"	1 CP	690	sq. ft.	0.13	0.28	0.41	+32.3
	2"	1 CP	690	sq. ft.	0.13	0.48	0.61	+41.9
Polystyrene:	1"	1 CP	690	sq. ft.	0.13	0.21	0.34	+30.8
	2"	1 CP	690	sq. ft.	0.13	0.43	0.56	+40.0
Polyurethane:	1"	1 CP	690	sq. ft.	0.13	0.34	0.47	+38.2
	2"	1 CP	690	sq. ft.	0.13	0.65	0.78	+44.4
ROOF INSULATION								
Batt fiber glass:	6"	1 CP	1000	sq. ft.	0.09	0.18	0.27	+28.6
Mineral fiberboard:	1"	1 CP	600	sq. ft.	0.15	0.16	0.31	+24.0
	1-1/2"	1 CP	600	sq. ft.	0.15	0.22	0.37	+27.6
	2"	1 CP	600	sq. ft.	0.15	0.30	0.45	+32.4
Fiber glass sheets:	3/4"	1 CP	600	sq. ft.	0.15	0.15	0.30	+25.0
	1"	1 CP	600	sq. ft.	0.15	0.19	0.34	+25.9
	2"	1 CP	600	sq. ft.	0.15	0.40	0.55	+37.5
Polystyrene sheets:	1"	1 CP	600	sq. ft.	0.15	0.19	0.34	+25.9
	2"	1 CP	600	sq. ft.	0.15	0.40	0.55	+37.5
Urethane:	1"	1 CP	600	sq. ft.	0.15	0.35	0.50	+35.1

BREAKDOWN OF CONSTRUCTION COSTS

DESCRIPTION		OUTPUT			UNIT COSTS			% CHANGE FROM 1974
		Crew	Per Day	Unit	Labor	Material	Total	
INSULATION continued								
Urethane:	2"	1 CP	600	sq. ft.	0.15	0.65	0.80	+42.9
Sprayed urethane:	1"	1 CP	250	sq. ft.	0.37	0.57	0.94	+30.6
	2"	1 CP	200	sq. ft.	0.47	0.99	1.46	+36.4
BLOWN-IN INSULATION								
Fiber glass:		1 CP	380	cu. ft.	0.24	0.32	0.56	+27.3
Mineral wool:		1 CP	380	cu. ft.	0.24	0.40	0.64	+30.6
Vermiculite:		1 CP	380	cu. ft.	0.24	0.73	0.97	+38.6
ROOFING & SIDING								
SHINGLES								
Asphalt shingle roofing w/15# felt:		1 RF	5	csf	17.74	25.93	43.67	+41.3
Asbestos shingle roofing:								
standard	325#/csf	1 RF	2.7	csf	32.86	38.94	71.80	+9.5
	500#/csf	1 RF	1.7	csf	52.18	69.38	121.56	+10.9
	540#/csf	1 RF	1.6	csf	55.45	80.53	135.98	+11.3
colored	325#/csf	1 RF	2.7	csf	32.86	43.36	76.22	+10.9
	500#/csf	1 RF	1.7	csf	52.18	73.10	125.28	+11.1
	540#/csf	1 RF	1.6	csf	55.45	84.25	139.70	+11.5
hip & ridge roll		1 RF	50.0	lin. ft.	1.77	0.99	2.76	+7.8
Asbestos shingle siding:	9"x32"	1 CP	240	sq. ft.	0.39	0.36	0.75	+8.7
	12"x24"	1 CP	240	sq. ft.	0.39	0.30	0.69	+7.8
Wood shingle roofing:								
#1 red cedar	16" w/5" exposure	1 RF	2.0	csf	44.36	43.29	87.65	+11.4
	18" w/6" exposure	1 RF	2.2	csf	40.32	46.62	86.94	+12.3
	18" w/7" exposure	1 RF	2.3	csf	38.57	53.28	91.85	+13.1
	16" fire-rated	1 RF	2.0	csf	44.36	174.46	218.82	+17.5
	18" fire-rated	1 RF	2.2	csf	40.32	178.12	218.44	+17.9
hand split red cedar shakes		1 RF	2.5	csf	35.48	53.28	88.76	+13.5
white cedar	standard	1 RF	1.9	csf	46.69	41.62	88.31	+11.0
	select	1 RF	1.9	csf	46.69	48.28	94.97	+11.7
Wood shingle siding:								
#1 red cedar	16" w/5" exposure	1 CP	1.5	csf	62.77	43.29	106.06	+9.9
	18" w/6" exposure	1 CP	1.7	csf	55.38	46.62	102.00	+10.9
	18" w/7" exposure	1 CP	1.8	csf	52.31	53.28	105.59	+11.8
	16" fire-rated	1 CP	1.5	csf	62.77	174.46	237.23	+16.3
	18" fire-rated	1 CP	1.8	csf	52.31	178.12	230.43	+17.1
hand split red cedar shakes		1 CP	1.8	csf	52.31	48.29	100.60	+11.3
white cedar	standard	1 CP	1.4	csf	67.25	41.62	108.87	+9.5
	select	1 CP	1.4	csf	67.25	48.28	115.53	+10.1
Slate shingles:								
Pennsylvania	ribbon	1 RF	1.2	csf	73.93	64.34	138.27	+9.7
	clear	1 RF	1.2	csf	73.93	83.64	157.57	+10.8
Vermont	black	1 RF	1.2	csf	73.93	121.38	195.31	+12.3
	gray	1 RF	1.2	csf	73.93	121.38	195.31	+12.3
	green	1 RF	1.2	csf	73.93	121.38	195.31	+12.3
	red non-fade	1 RF	1.2	csf	73.93	242.50	316.43	+19.0
ROOFING TILE								
Clay tile:	flat red, 11" exposure	1 RF	1.4	csf	63.37	126.31	189.68	+56.6
	colored glazed interlock	1 RF	1.4	csf	63.37	126.31	189.68	+28.0
	Spanish tile	1 RF	1.4	csf	63.37	126.31	189.68	+28.0
	Mission tile	1 RF	1.2	csf	73.93	142.10	216.03	+27.6
	Greek tile	1 RF	1.0	csf	88.72	346.02	434.74	+34.5
Concrete tile:	flat standard	1 RF	2.0	csf	44.36	52.99	97.35	+22.5
	flat selected	1 RF	2.0	csf	44.36	57.81	102.17	+23.5
	interlocked	1 RF	2.0	csf	44.36	56.21	100.57	+23.2
PREFORMED ROOFING & SIDING								
Aluminum siding:	horizontal plain	1 SM	240	sq. ft.	0.48	0.54	1.02	+14.6
	insulated	1 SM	240	sq. ft.	0.48	0.62	1.10	+17.0

DESCRIPTION		OUTPUT			UNIT COSTS			% CHANGE FROM 1974
		Crew	Per Day	Unit	Labor	Material	Total	
ROOFING & SIDING continued								
Felt underlayment:	asphalt felt 15#	1 CP	50	csf	1.88	1.56	3.44	+22.4
	asphalt felt 30#	1 CP	50	csf	1.88	2.78	4.66	+30.2
MEMBRANE ROOFING								
Built-up roofing:	3 ply	1 RF	480	sq. ft.	0.18	0.13	0.31	+6.9
	4 ply, 10 yr. bond	1 RF	375	sq. ft.	0.23	0.17	0.40	*
	4 ply, 20 yr. bond	1 RF	350	sq. ft.	0.25	0.20	0.45	*
	5 ply, 10 yr. bond	1 RF	325	sq. ft.	0.27	0.18	0.45	*
	5 ply, 20 yr. bond	1 RF	315	sq. ft.	0.28	0.21	0.49	*
for gravel surfacing add				sq. ft.		0.03	0.03	+50.0
DOORS & FRAMES								
WOOD DOORS & FRAMES								
Wood frames: exterior stock units	without sill	1 CP	8	each	11.77	20.39	32.16	+12.0
	with sill	1 CP	6	each	15.69	28.03	43.72	+12.1
	with side lites	1 CP	4.5	each	20.92	70.09	91.01	+14.2
interior stock units	3'x7'	1 CP	14	each	6.72	14.41	21.13	+12.8
	6'x7'	1 CP	13	each	7.24	47.15	54.39	+15.8
	3'x10' w/transom	1 CP	12	each	7.84	20.96	28.80	+13.5
	6'x10' w/transom	1 CP	11	each	8.56	60.25	68.81	+15.9
interior custom units	3'x7'	1 CP	14	each	6.72	26.19	32.91	+14.5
	6'x7'	1 CP	13	each	7.24	58.94	66.18	+16.2
	3'x10' w/transom	1 CP	12	each	7.84	34.05	41.89	+14.8
	6'x10' w/transom	1 CP	11	each	8.56	68.11	76.67	+16.1
Prehung door, including frame, sill & hardware:	exterior	1 CP	7	each	13.45	173.50	186.95	+16.8
	interior	1 CP	9	each	10.46	65.49	75.95	+15.7
Pocket door frame w/hardware:		1 CP	6	each	15.69	26.20	41.89	+11.9
Flush type door, hollow core 1-3/8" thick: birch face	2'0"x6'6"	1 CP	2	each	47.08	17.02	64.10	+6.6
	2'6"x6'8"	1 CP	2	each	47.08	19.64	66.72	+7.0
	2'8"x6'8"	1 CP	2	each	47.08	22.26	69.34	+7.4
	3'0"x6'8"	1 CP	2	each	47.08	23.57	70.65	+7.5
	3'0"x7'0"	1 CP	2	each	47.08	24.88	71.96	+7.7
lauan face	2'0"x6'6"	1 CP	2	each	47.08	13.09	60.17	+5.9
	2'6"x6'8"	1 CP	2	each	47.08	15.71	62.79	+6.4
	2'8"x6'8"	1 CP	2	each	47.08	19.64	66.72	+7.0
	3'0"x6'8"	1 CP	2	each	47.08	20.95	68.03	+7.2
	3'0"x7'0"	1 CP	2	each	47.08	23.57	70.65	+7.5
Flush type door, hollow core 1-3/4" thick:								
birch face	2'8"x6'8"	1 CP	2	each	47.08	26.20	73.28	+7.9
	3'0"x6'8"	1 CP	2	each	47.08	28.81	75.89	+8.2
	3'0"x7'0"	1 CP	2	each	47.08	31.43	78.51	+8.5
	3'0"x8'0"	1 CP	2	each	47.08	36.70	83.78	+9.1
lauan face	2'8"x6'8"	1 CP	2	each	47.08	19.65	66.73	+7.0
	3'0"x6'8"	1 CP	2	each	47.08	23.57	70.65	+7.5
	3'0"x7'0"	1 CP	2	each	47.08	26.20	73.28	+7.9
	3'0"x8'0"	1 CP	2	each	47.08	31.43	78.51	+8.5
Flush type door, particle board filler 1-3/8" thick: birch face	2'8"x6'8"	1 CP	2	each	47.08	28.81	75.89	+8.2
	3'0"x6'8"	1 CP	2	each	47.08	32.75	79.83	+8.7
	3'0"x7'0"	1 CP	2	each	47.08	36.67	83.75	+9.0
	3'0"x8'0"	1 CP	1.8	each	52.31	45.84	98.15	+9.5
lauan face	2'8"x6'8"	1 CP	2	each	47.08	23.57	70.65	+7.5
	3'0"x6'8"	1 CP	2	each	47.08	27.50	74.58	+8.0
	3'0"x7'0"	1 CP	2	each	47.08	31.50	78.58	+8.6
	3'0"x8'0"	1 CP	1.8	each	52.31	40.60	92.91	+9.0
Flush type door, particle board filler 1-3/4" thick:								
birch face	2'8"x6'8"	1 CP	2	each	47.08	41.91	88.99	+9.5
	3'0"x6'8"	1 CP	2	each	47.08	45.85	92.93	+9.9
	3'0"x7'0"	1 CP	2	each	47.08	48.45	95.53	+10.1
	3'6"x7'0"	1 CP	1.5	each	62.77	65.50	128.27	+10.1

*No comparable figures from 1974

BREAKDOWN OF CONSTRUCTION COSTS

DESCRIPTION		OUTPUT Crew	Per Day	Unit	UNIT COSTS Labor	Material	Total	% CHANGE FROM 1974
DOORS & FRAMES continued								
birch face	4′0″x7′0″	1 CP	1.5	each	62.77	70.73	133.50	+10.4
	3′0″x8′0″	1 CP	1.5	each	62.77	68.10	130.87	+10.3
	3′6″x8′0″	1 CP	1.5	each	62.77	89.06	151.83	+11.3
	4′0″x8′0″	1 CP	1.5	each	62.77	94.31	157.08	+11.5
lauan face	2′8″x6′8″	1 CP	2	each	47.08	36.68	83.76	+9.1
	3′0″x7′0″	1 CP	2	each	47.08	39.29	86.37	+9.3
	3′0″x8′0″	1 CP	1.5	each	62.77	55.01	117.78	+9.5
Flush type door, fire-rated 3/4 hour, w/particle board filler:	2′8″x6′8″	1 CP	2	each	47.08	52.39	99.47	+10.4
	3′0″x6′8″	1 CP	2	each	47.08	55.01	102.09	+10.6
	3′0″x7′0″	1 CP	2	each	47.08	57.65	104.73	+10.8
	3′6″x7′0″	1 CP	1.5	each	62.77	78.59	141.36	+10.8
	4′0″x7′0″	1 CP	1.5	each	62.77	85.14	147.91	+11.1
Plastic laminate doors: add to birch prices 35%								0
Flush type solid doors: pine	2′8″x6′8″	1 CP	2	each	47.08	95.60	142.68	+12.6
	3′0″x6′8″	1 CP	1.5	each	62.77	98.25	161.02	+11.7
	3′0″x7′0″	1 CP	1.5	each	62.77	104.78	167.55	+11.9
Panel type doors 3′x7′x1-3/4″, raised panel: oak		1 CP	1.5	each	62.77	78.60	141.37	+10.8
walnut		1 CP	1.5	each	62.77	98.23	161.00	+11.6
Exterior wood doors, 3′x7′:								
birch	1-3/4″ thick	1 CP	2	each	47.08	78.59	125.67	+11.9
	2-1/4″ thick	1 CP	1.5	each	62.77	91.69	154.46	+11.4
pine paneled colonial design w/frame & trim		1 CP	1.5	each	62.77	65.49	128.26	+10.1
		1 CP	1	each	94.16	143.96	238.12	+11.6
Bi-folding, prehung: louvered pine	3′x6′x8″	1 CP	4	each	23.54	39.30	62.84	+11.9
	6′x6′x8″	1 CP	3.5	each	26.90	62.87	89.77	+13.1
pine paneled	3′x6′x8″	1 CP	4	each	23.54	44.53	68.07	+12.3
	6′x6′x8″	1 CP	3.5	each	26.90	78.50	105.40	+13.7
birch	3′x6′x8″	1 CP	4	each	23.54	39.28	62.82	+11.9
	6′x6′x8″	1 CP	3.5	each	26.90	69.42	96.32	+13.4
hardboard	3′x6′x8″	1 CP	4	each	23.54	36.67	60.21	+11.6
	6′x6′x8″	1 CP	3.5	each	26.90	62.87	89.77	+13.1
SPECIAL DOORS								
French doors, 5′x7′:	wood	1 CP	0.5	opg	188.32	195.00	383.32	+10.2
	steel	1 CP	0.5	opg	188.32	248.00	436.32	+19.9
Sliding glass doors, 6′x7′: standard		1 SI	1.7	each	58.77	238.00	296.77	+30.7
deluxe		1 SI	1.7	each	58.77	523.00	581.77	+35.0
Storm & screen combination doors: residential	aluminum	1 CP	3.5	each	26.90	108.90	135.80	+25.0
	wood	1 CP	3.5	each	26.90	77.88	104.78	+13.7
OVERHEAD DOORS								
Fiber glass & aluminum w/o frames: standard	8′x7′	1 CP	0.8	each	117.70	128.30	246.00	+16.3
	16′x7′	1 CP	0.8	each	117.70	227.00	344.70	+20.4
deluxe	8′x7′	1 CP	0.8	each	117.70	178.20	295.90	+18.7
	16′x7′	1 CP	0.8	each	117.70	270.00	387.70	+21.4
Wood w/hardboard panels, w/o frames: standard	8′x7′	1 CP	0.8	each	117.70	102.00	219.70	+9.5
	16′x7′	1 CP	0.5	each	188.32	203.00	391.32	+10.3
deluxe	8′x7′	1 CP	0.8	each	117.70	120.00	237.70	+9.9
	16′x7′	1 CP	0.5	each	188.32	229.00	417.32	+10.7
Wood w/track, springs, etc.: flush insulated	9′x7′	2 CP	2.0	each	94.16	100.80	194.96	*
	16′x7′	2 CP	1.6	each	117.70	191.95	309.65	*
raised panel	9′x7′	2 CP	2.0	each	94.16	106.95	201.11	*
	16′x7′	2 CP	1.6	each	117.70	227.20	344.90	*

*No comparable figures from 1974

DESCRIPTION		OUTPUT			UNIT COSTS			% CHANGE FROM 1974
		Crew	Per Day	Unit	Labor	Material	Total	
WINDOWS								
STEEL WINDOWS W/O GLAZING								
Basement sash:	2'8"x1'2"	2 Sl	15	each	13.32	17.50	30.82	+19.1
	2'8"x1'6"	2 Sl	15	each	13.32	20.40	33.72	+20.3
	2'8"x1'10"	2 Sl	15	each	13.32	26.25	39.57	+22.3
ALUMINUM WINDOWS W/O GLAZING								
Average costs per sq. ft.:								
	fixed	1 Sl	70	sq. ft.	1.42	1.99	3.41	+18.0
	casement	1 Sl	70	sq. ft.	1.42	4.84	6.26	+24.0
	projected	1 Sl	70	sq. ft.	1.42	6.27	7.69	+25.4
	sliding	1 Sl	70	sq. ft.	1.42	3.84	5.26	+22.6
	screens	1 Sl	550	sq. ft.	0.18	1.13	1.31	+27.2
Awning type:	3'1"x2'2"	2 Sl	10	each	19.98	69.85	89.83	+24.2
	4'5"x2'2"	2 Sl	10	each	19.98	81.25	101.23	+25.1
	3'1"x3'3"	2 Sl	9	each	22.20	74.13	96.33	+24.0
	3'1"x4'3"	2 Sl	7	each	28.54	82.68	111.22	+23.1
	4'5"x4'3"	2 Sl	6	each	33.30	95.51	128.81	+23.1
	4'5"x5'3"	2 Sl	5	each	39.96	102.64	142.60	+22.4
Casement, standard:	3'1"x2'2"	2 Sl	14	each	14.27	37.06	51.33	+22.4
	4'5"x2'2"	2 Sl	11	each	18.16	58.44	76.60	+23.7
	3'1"x3'3"	2 Sl	11	each	18.16	42.76	60.92	+21.8
	5'9"x3'3"	2 Sl	7	each	28.54	71.28	99.82	+22.2
	5'9"x4'3"	2 Sl	7	each	28.54	81.25	109.79	+23.0
	5'9"x5'3"	2 Sl	6	each	33.30	89.80	123.10	+22.7
	7'7"x5'3"	2 Sl	6	each	33.30	95.51	128.81	+23.1
Double hung standard:	2'4"x3'1"	2 Sl	8	each	24.98	74.13	99.11	+23.3
	3'8"x3'1"	2 Sl	6.5	each	30.74	84.10	114.84	+22.8
	3'8"x5'9"	2 Sl	5.5	each	36.33	99.80	136.13	+22.8
WOOD WINDOWS								
Average cost per sq. ft. w/o glazing:								
	sliding	1 CP	55	sq. ft.	1.71	3.19	4.90	+12.4
	double hung	1 CP	50	sq. ft.	1.88	2.80	4.68	+11.7
	casement	1 CP	60	sq. ft.	1.57	3.82	5.39	+13.2
	picture	1 CP	55	sq. ft.	1.71	3.80	5.51	+12.5
Bow window w/glazing	7'0"x5'0"	2 CP	2	each	94.16	167.56	261.72	+12.1
	8'9"x5'0"	2 CP	1.5	each	125.54	229.00	354.54	+12.2
	7'0"x6'6"	2 CP	1.8	each	104.62	223.00	327.62	+12.7
	8'9"x6'6"	2 CP	1.4	each	134.51	279.60	414.11	+12.6
Basement sash w/o glazing:								
fixed	2'8"x1'4"	2 CP	16	each	11.77	19.10	30.87	+11.7
	2'8"x1'10"	2 CP	15	each	12.55	21.65	34.20	+11.9
top hung	2'8"x1'4"	2 CP	12	each	15.69	22.90	38.59	+11.3
	2'8"x1'10"	2 CP	10	each	18.83	28.03	46.86	+11.5
Casement w/glazing:	2'0"x2'6"	2 CP	8	each	23.54	50.98	74.52	+12.8
	3'6"x2'6"	2 CP	6.5	each	28.97	98.10	127.07	+14.2
	5'0"x2'6"	2 CP	4.8	each	39.23	128.60	167.83	+14.1
	3'6"x3'0"	2 CP	6	each	31.38	112.15	143.53	+14.3
Picture window, w/glazing & D.H. side sash:								
	10'3"x4'6"	2 CP	3	each	62.77	363.50	426.27	+15.5
	12'3"x4'6"	2 CP	2.4	each	78.46	452.00	530.46	+15.5
	12'3"x5'6"	2 CP	2.0	each	94.16	509.75	603.91	+15.4
	12'3"x6'6"	2 CP	1.8	each	104.62	611.00	715.62	+15.5
Double hung pine w/o glazing:								
	2'0"x3'2"	2 CP	7	each	26.90	42.05	68.95	+11.6
	2'0"x4'6"	2 CP	6	each	31.38	47.15	78.53	+11.5
	2'8"x3'2"	2 CP	6	each	31.38	44.60	75.98	+11.3
	2'8"x5'2"	2 CP	4.2	each	44.83	56.00	100.83	+10.7
	3'4"x5'2"	2 CP	3.8	each	49.55	63.75	113.30	+10.9
Window trim:								
pine	1"x4" molded	1 CP	180	ln. ft.	0.52	0.41	0.93	+9.4
	1"x6" stool	1 CP	100	ln. ft.	0.94	0.55	1.49	+8.0

*No comparable figures from 1974

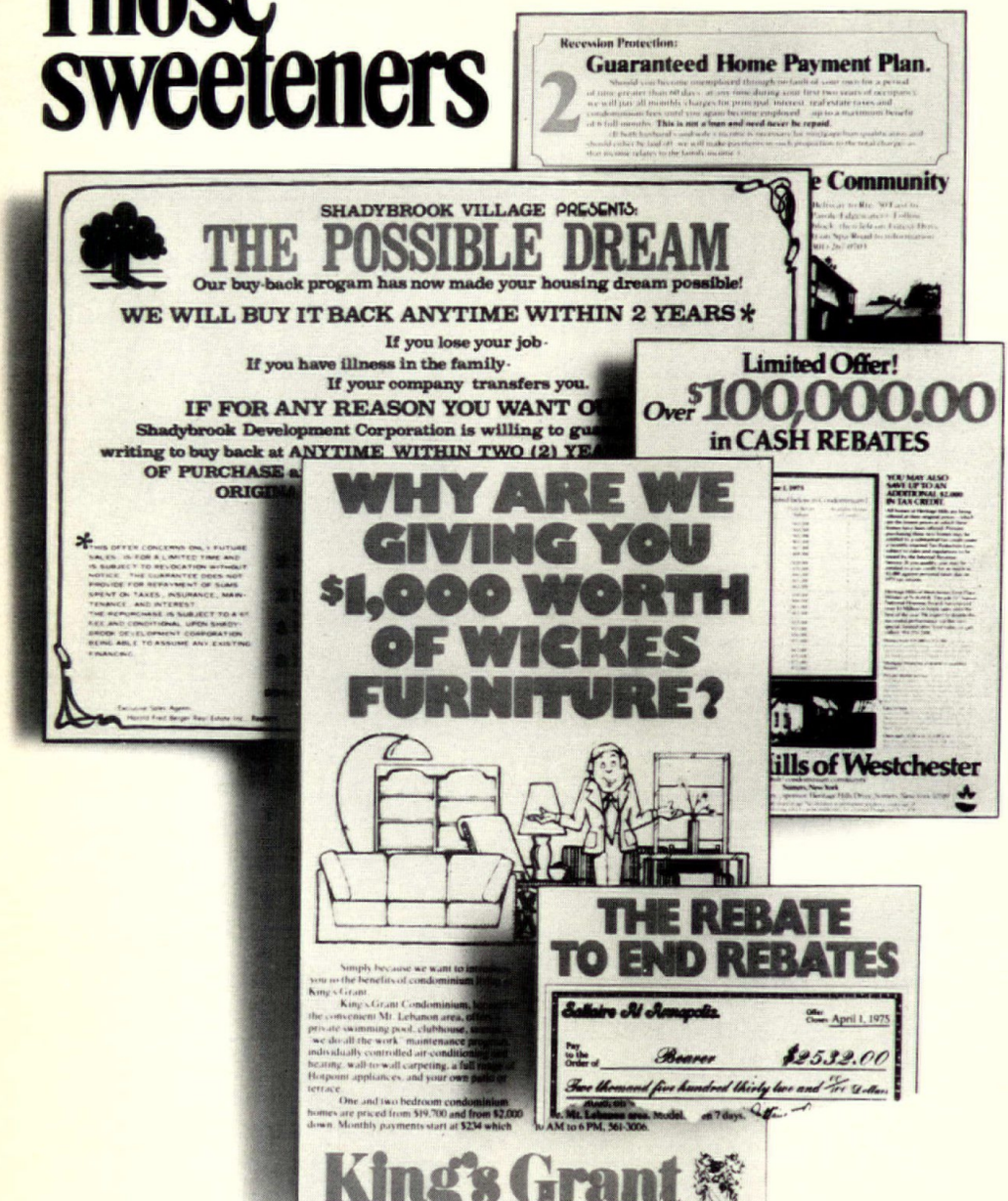
DESCRIPTION		OUTPUT Crew	OUTPUT Per Day	UNIT COSTS Unit	UNIT COSTS Labor	UNIT COSTS Material	UNIT COSTS Total	% CHANGE FROM 1974
WINDOWS continued								
oak	1″x4″ molded	1 CP	130	ln. ft.	0.72	0.49	1.21	+8.0
	1″x6″ stool	1 CP	90	ln. ft.	1.04	0.70	1.74	+8.8
birch	1″x4″ molded	1 CP	110	ln. ft.	0.85	0.64	1.49	+8.8
	1″x6″ stool	1 CP	80	ln. ft.	1.17	0.84	2.01	+8.6
Storm windows:	to 12 sq. ft.	2 CP	9	ln. ft.	20.92	16.55	37.47	+9.1
	12 to 20 sq. ft.	2 CP	8	ln. ft.	23.54	25.50	49.04	+10.3
WALLBOARD								
GYPSUM DRYWALL								
Drywall including taping:	3/8″	1 CP	780	sq. ft.	0.12	0.09	0.21	+10.5
	1/2″	1 CP	750	sq. ft.	0.12	0.12	0.24	+4.3
	5/8″	1 CP	700	sq. ft.	0.13	0.13	0.26	+4.0
	3/8″+5/8″ laminated	1 CP	420	sq. ft.	0.22	0.21	0.43	+7.5
	5/8″+5/8″ laminated	1 CP	400	sq. ft.	0.23	0.24	0.47	+6.8
Suspended drywall ceiling, including channel:		1 CP	250	sq. ft.	0.37	0.26	0.63	+5.0
Drywall nailed to wood joists:		1 CP	300	sq. ft.	0.31	0.12	0.43	+4.9
Drywall partitions complete:								
2-1/2″ metal studs	1/2″ drywall	1 CP	98	sq. ft.	0.96	0.42	1.38	+9.5
	5/8″ drywall	1 CP	86	sq. ft.	1.09	0.48	1.57	+9.8
	5/8″+3/8″ laminated	1 CP	69	sq. ft.	1.36	0.74	2.10	+11.1
	5/8″+5/8″ laminated	1 CP	53	sq. ft.	1.77	0.79	2.56	+9.9
3-5/8″ metal studs	1/2″ drywall	1 CP	90	sq. ft.	1.04	0.45	1.49	+9.6
	5/8″ drywall	1 CP	80	sq. ft.	1.17	0.50	1.67	+9.2
	5/8″+3/8″ laminated	1 CP	65	sq. ft.	1.44	0.76	2.20	+10.6
	5/8″+5/8″ laminated	1 CP	51	sq. ft.	1.84	0.81	2.65	+9.5
TILE								
CERAMIC TILE								
Wall tile:								
glazed on mud set								
one color	1″x1″	1 TS	75	sq. ft.	1.18	1.07	2.25	+8.7
	4-1/4″x4-1/4″	1 TS	75	sq. ft.	1.18	0.95	2.13	+8.7
multi-color	1″x1″	1 TS	75	sq. ft.	1.18	1.20	2.38	+9.2
	4-1/4″x4-1/4″	1 TS	75	sq. ft.	1.18	1.07	2.25	+8.7
glazed on thin set								
one color	1″x1″	1 TS	105	sq. ft.	0.84	0.95	1.79	+2.9
	4-1/4″x4-1/4″	1 TS	105	sq. ft.	0.84	0.86	1.70	+4.3
multi-color	1″x1″	1 TS	105	sq. ft.	0.84	1.10	1.94	+4.9
	4-1/4″x4-1/4″	1 TS	105	sq. ft.	0.84	0.96	1.80	+3.4
Floor tile:								
mud set								
one color	1″x1″	1 TS	95	sq. ft.	0.93	0.96	1.89	+3.3
multi-color	1″x1″	1 TS	95	sq. ft.	0.93	1.08	2.01	+3.6
thin set								
one color	1″x1″	1 TS	120	sq. ft.	0.74	0.99	1.73	+5.5
multi-color	1″x1″	1 TS	120	sq. ft.	0.74	1.10	1.84	+5.1
For epoxy grout add				sq. ft.		0.36	0.36	+63.6
For abrasive non-slip tile add				sq. ft.		0.24	0.24	+33.3
Cove base tile:								
mud set	4-1/2″x4-1/4″	1 TS	38	ln. ft.	2.33	0.83	3.16	+6.8
	6″x4-1/4″	1 TS	38	ln. ft.	2.33	0.90	3.23	+7.0
	6″x4-1/4″ sanitary	1 TS	38	ln. ft.	2.33	1.08	3.41	+11.1
	6″x6″ sanitary	1 TS	38	ln. ft.	2.33	1.09	3.42	+7.5
thin set	4-1/2″x4-1/4″	1 TS	46	ln. ft.	1.93	0.83	2.76	+7.4
	6″x4-1/4″	1 TS	46	ln. ft.	1.93	0.90	2.83	+7.6
	6″x4-1/4″ sanitary	1 TS	46	ln. ft.	1.93	0.96	2.89	+7.8
	6″x6″ sanitary	1 TS	46	ln. ft.	1.93	1.09	3.02	+8.2
Bullnose trim 4-1/4″:	mud set	1 TS	34	ln. ft.	2.61	0.90	3.51	+6.7
	thin set	1 TS	42	ln. ft.	2.11	0.90	3.01	+7.1

BREAKDOWN OF CONSTRUCTION COSTS

DESCRIPTION		OUTPUT			UNIT COSTS			% CHANGE FROM 1974
		Crew	Per Day	Unit	Labor	Material	Total	
FLOORING								
WOOD STRIP FLOORING								
Fir, no finish:	1"x4" T&G	1 CP	230	sq. ft.	0.41	0.89	1.30	+17.1
	1"x6" T&G	1 CP	250	sq. ft.	0.37	0.85	1.22	+16.2
White or red oak 25/32"x2-1/4":								
	no finish	1 CP	135	sq. ft.	0.69	1.06	1.75	+14.4
	prefinished	1 CP	130	sq. ft.	0.72	1.20	1.92	+15.0
Sanding & finishing:		1 CP	225	sq. ft.	0.41	0.09	0.50	+6.4
WOOD BLOCK FLOORING								
Hardwood block 25/32": Parquet flooring 5/16" thick:		1 CP	120	sq. ft.	0.78	1.04	1.82	+12.3
no finish	oak	1 CP	120	sq. ft.	0.78	1.09	1.87	+10.0
	walnut	1 CP	120	sq. ft.	0.78	1.50	2.28	+10.7
	teak	1 CP	120	sq. ft.	0.78	1.33	2.11	+10.5
prefinished	oak	1 CP	110	sq. ft.	0.85	1.22	2.07	+9.5
	walnut	1 CP	110	sq. ft.	0.85	1.63	2.48	+10.7
	teak	1 CP	110	sq. ft.	0.85	1.46	2.31	+10.5
CARPETING								
Wool carpet:	shag			sq. yd.		23.18	23.18	+33.0
	plush			sq. yd.		19.75	19.75	+33.0
Nylon carpet:	shag			sq. yd.		9.98	9.98	+21.0
	plush			sq. yd.		6.65	6.65	+20.9
Acrylic carpet:	plush			sq. yd.		10.44	10.44	+21.0
Polyester carpet:	shag			sq. yd.		8.31	8.31	+21.0
Commercial carpet:	acrylic			sq. yd.		12.57	12.57	+21.0
	nylon			sq. yd.		9.31	9.31	+20.9
RESILIENT FLOORING								
Sheet vinyl flooring: Vinyl asbestos tile:	9"x9"x1/8"	1 CP	325	sq. ft.	0.29	0.79	1.08	+9.1
		1 CP	400	sq. ft.	0.23	0.42	0.65	+12.1
	9"x9"x1/16"	1 CP	400	sq. ft.	0.23	0.53	0.76	+13.4
Vinyl tile:	12"x12"x1/8"	1 CP	480	sq. ft.	0.19	0.94	1.13	*
	12"x12"x1/8" travertine	1 CP	480	sq. ft.	0.19	1.20	1.39	*
	12"x12"x1/8" florentine	1 CP	480	sq. ft.	0.19	1.60	1.79	*
PAINTING								
EXTERIOR WALLS								
2 coats: wood	oil base	1 PA	500	sq. ft.	0.17	0.07	0.24	+14.3
metal	oil base	1 PA	450	sq. ft.	0.19	0.07	0.26	+13.0
masonry	latex	1 PA	450	sq. ft.	0.19	0.07	0.26	+13.0
shingles	stain	1 PA	410	sq. ft.	0.21	0.04	0.25	+8.7
windows & doors	enamel	1 PA	300	sq. ft.	0.29	0.07	0.36	+9.1
INTERIOR WALLS								
Plaster or drywall:	3 coats flat	1 PA	500	sq. ft.	0.17	0.07	0.24	+14.3
	2 coats enamel	1 PA	400	sq. ft.	0.21	0.10	0.31	+10.7
Wood:	2 coats enamel	1 PA	375	sq. ft.	0.23	0.10	0.33	+13.8
	filler, stain, 2 coats varnish	1 PA	320	sq. ft.	0.27	0.11	0.38	+11.8
Masonry or concrete:	2 coats latex	1 PA	190	sq. ft.	0.46	0.19	0.65	+12.1
CEILINGS								
Plaster or drywall:	2 coats flat	1 PA	425	sq. ft.	0.20	0.07	0.27	+12.5
	2 coats enamel	1 PA	400	sq. ft.	0.21	0.07	0.28	+7.7
Wood:	2 coats enamel filler, stain, 2 coats	1 PA	360	sq. ft.	0.24	0.10	0.34	+17.2
	varnish	1 PA	205	sq. ft.	0.42	0.17	0.59	+11.3
Masonry or concrete:	2 coats latex	1 PA	360	sq. ft.	0.24	0.07	0.31	+10.7

*No comparable figures from 1974

Those sweeteners



Which ones are moving the sticky inventory?

How will the new tax credit affect them?

What legal problems can they raise?

There are all kinds of sweeteners—cash rebates, price cuts, rent-before-you-buy plans, decorator packages and reduced down payments—to name a few.

And while relatively few builders are using them, they generally work—sometimes spectacularly. Some recent examples:

- In Atlanta, price cuts averaging $7,500 moved 113 condominium townhouses in 20 days. The developer, Crow, Pope and Land, also offered an 18-month buy-back plan, no closing costs and 95% financing.
- In California, a sales blitz that included 2% down payments and pre-paid association dues reduced Robert H. Grant Co.'s 400-unit inventory to less than 50—in eleven weeks.
- In Dallas, price reductions averaging $2,000 generated 50 single-family sales in six weeks for Raldon Housing Corp. And the price-cut advertising campaign pulled in traffic that resulted in 50 additional sales at full price.

But all sweeteners don't work equally well. An informal HOUSE & HOME survey shows that such small sweeteners as a $500 decorator package, a trash compactor or a color television set have little impact on sales in a sluggish market. Similarly, no-down-payment plans alone usually can't spark sales. Nor can lease-before-you-buy programs—unless they are part of a bigger incentive package.

Poor results are especially evident where a single incentive has to offset a series of negative factors, such as high interest rates, inconvenient location and electric heat in an area where electric rates are soaring.

If strong negative factors aren't present, then a substantial price cut or actual cash rebate can be enough to spur sales. Slightly less effective are major decorator packages—worth $2,000 to $8,000.

Free cars—from Pintos to Cadillacs—also have quickly wiped out inventory along with a project's profitability.

There's little doubt that the best sweetener is a package of incentives that woo the prospect by fattening his purse and placating his fears. And if properly handled, the package doesn't hurt profits; it increases them.

For example, the Grant package that cut inventory by 350 units in eleven weeks included 1) a 2% down payment, with the remaining 3% paid in three installments after occupancy; 2) no closing costs; 3) a drapery package; 4) one year's pre-paid community association dues; and 5) on-site contests for prospects and buyers. Adding momentum to the promotion effort were sales contests and giant two-color display advertisements tied to a "red tag sale" theme.

Says Marketing Vice President Chuck Dreyer: "Profits are way up because of the red tag sale. It only increased our marketing costs 1% per unit." Price hikes prior to the sale covered accumulated carrying charges, according to Dreyer.

In another sweetener package, a Klingbeil Co. condominium conversion in Pittsburgh

offered 1) a $1,000 gift certificate to buy furniture; 2) $60 a month for one year; 3) a rent-before-you-buy plan; 4) a 5% down payment; and 5) a buy-back plan.

Result: The sales rate increased 80%—from 10 to 18 a month. Says marketing head Bob Lyons: "This rebate plan didn't cost us money. It made us money—first because we had previously raised prices and second because we sold out faster."

Whipped cream: the tax credit

The tax credit *(see also p. 5)* should be considered another sweetener on top of the existing package of sweeteners, says marketing consultant Ken Miller of New York City. Miller, who is president of Miller, Addison and Steele, an advertising agency specializing in real estate, says: "Right after it was announced, we advised our clients to tack on tax-credit copy to ads already running."

But much inventory won't be eligible for the tax credit because many builders are unwilling to comply with the IRS rule that a home must sell "at the lowest price at which the residence was ever offered."

For these builders, Miller advises beefing up rebate campaigns to counter competitors who will offer the tax credit.

"Builders have to have the guts to get off dead center," says Miller, "and this means offering real bait to generate traffic."

When the bait is a price cut or an upfront rebate, it usually applies only to a small portion of inventory: "We picked out 36 slow movers and sold seven in the first two weeks by offering $2,000 and $3,000 cash rebates," says Henry Paparazzo, developer of Heritage Hills in Somers, N.Y.

A WORD ON PRICING STRATEGY

Price levels of housing should anticipate the possibility of rebate plans. So says consultant Lawrence Blum, until last month national marketing director of Presidential Realty Co. of White Plains, N.Y.

A pricing schedule should be progressive, he says, starting as low as possible to generate fast sales. Then as units continue to sell prices can be hiked. The increases should cover 1) the cost of a rebate plan to keep sales moving; 2) association fees on unsold units; 3) construction-loan interest; and 4) taxes.

Obviously, if a rebate program isn't needed, profits will be higher. If it is used, profits aren't hurt.

The cash rebates shave profit margins a little, he says, but $400 a month carrying charges per unsold unit eat up profits faster: "My main concern was to get rid of the few slow movers so that we could get on to building the next phase."

Hot potato: rebate legality

Builders who don't fully disclose their rebate plans to their lenders risk violating federal criminal statutes. The crime: fraud.

That's the essence of a memorandum compiled by NAHB general counsel Herbert Colton and issued March 20 to local NAHB officials.

Legally, says Colton, a rebate can be any of a number of inducements—cash, gifts of personal property (a car or a television set), a free vacation, a promise to make specified mortgage payments and a free insurance policy that covers mortgage payments if the purchaser becomes unemployed.

The crux of the legal problem is not the rebate plans themselves, says Colton. It's what they do to appraisal values and to loans insured and/or guaranteed by the federal government and quasi-federal agencies that raises the specter of fraud.

Colton offers a series of conclusions that clarify the builder's responsibility:

- Rebates have the effect of lowering appraisal values of loans insured, guaranteed or sold to government agencies. Thus, FHA and VA regulations state that failure to mention the rebate on the proper forms is an act of criminal fraud.
- Conventional lenders who intend to keep a loan in their portfolio may not require rebate statements as do FHA and VA. But the rebate does lower the lender's appraisal of similar homes in the area, including those to be sold later by the same builder without rebates.

And if the lender requires disclosure but the builder doesn't comply, he risks committing 1) civil fraud and 2) criminal fraud if the lender is insured by the Federal Deposit Insurance Corp. or bound by certain state statutes.

- Conventional lenders who intend to re-sell their loans run into a FNMA requirement for an affidavit stating the purchaser's equity and mortgage amount. But in such cases, Colton says, Fannie Mae has not made it clear whether a builder's failure to disclose a rebate is a criminal violation. Ginnie Mae has no rules on disclosure, but will apparently follow Fannie Mae practice.
- FHLMC, which requires private-mortgage insurance on high-percentage loans, relies on the insurer to supply an affidavit disclosing any rebates. Disclosing a rebate results in a lower appraisal; failure to disclose is a federal violation.

Many lenders still won't approve rebate plans. That leaves the builder with three choices: 1) do nothing; 2) cut prices; or 3) find another lender. Increasingly, builders in soft markets are opting for the third choice. More often than not, they seek out conventional lenders who don't plan to re-sell their loans.

—MICHAEL J. ROBINSON

WHY A $3,000 REBATE COSTS THE DEVELOPER ONLY $1,100

The rebate package offered by the Klingbeil Co. at a Springfield, Va. garden apartment project *(see Super Rebate advertisement at left)* is a rent-and-purchase plan.

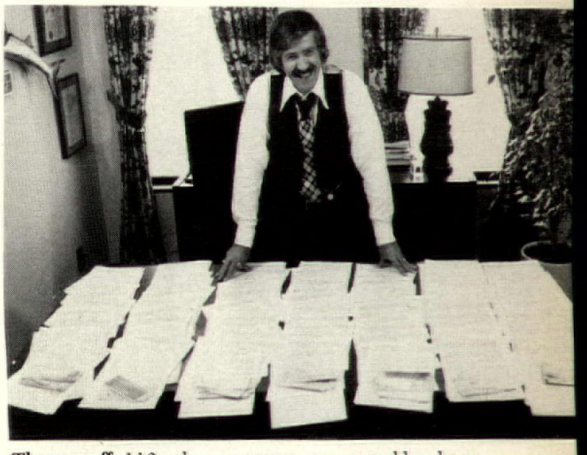
Here's how it works on a $32,000, two-bedroom unit:

1. The customer signs a reservation to purchase and is encouraged to make a token down payment, which is refunded should he decide not to buy.
2. Included in the reservation is a rental contract in which the customer agrees to pay rent for six months. The six-month rent is about the same amount he would pay as a condominium buyer with 5% down.
3. At some point during the six months, the customer comes up with a 5% down payment. Rent monies and the down payment go into separate escrow accounts.
4. When the buyer takes title after six months, the rental escrow account (about $1,900) is rebated. At the same time, Klingbeil picks up closing costs and some settlement fees (about $1,100). Total: $3,000, but the builder is only out of pocket $1,100. On smaller units the rebate will total about $2,000 and cost the builder $700 to $800.

"Super rebate is proving its worth," says Klingbeil Marketing Vice President Bill Kneeland. He sold eight units in the first two weeks, and the quality of traffic dramatically improved. "The tire kickers have been replaced by the bargain hunters," says Kneeland.

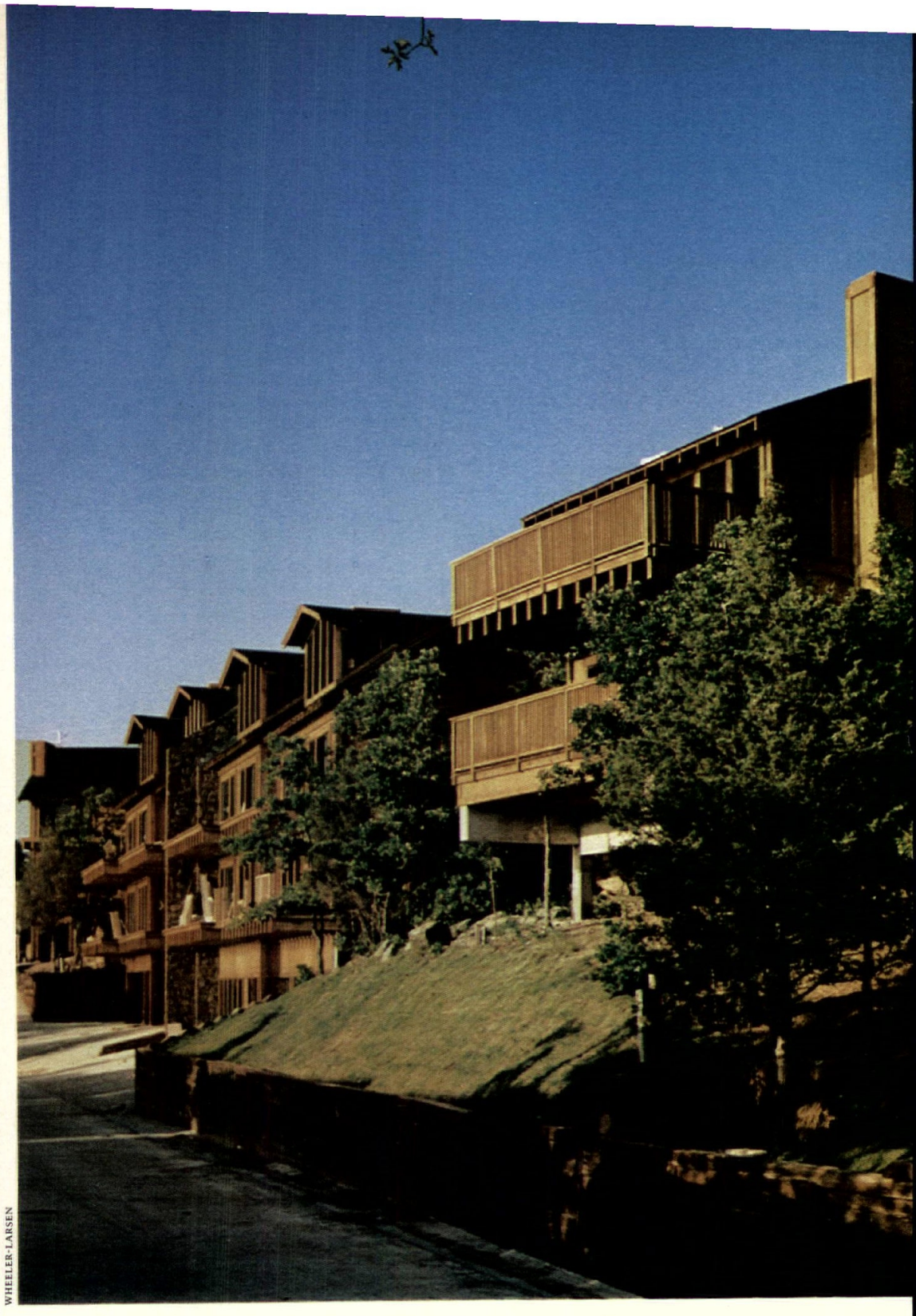
Kneeland feels that the plan benefits the company because the units are filled, cash flow isn't hurt and buyers are lined up for settlement in six months. And it has another benefit: boosting salesmen's morale. "They love the big increase in traffic," says Kneeland, "and they'll be kept busy converting renters to buyers."

Will the conversion rate be high? Kneeland believes so. "The new federal tax credit gives people a reason to buy now, and we're going to play it to the hilt."



The payoff: 113 sales contracts generated by deep price cuts cover desk of Lee Matthews, Crow, Pope and Land marketing director.

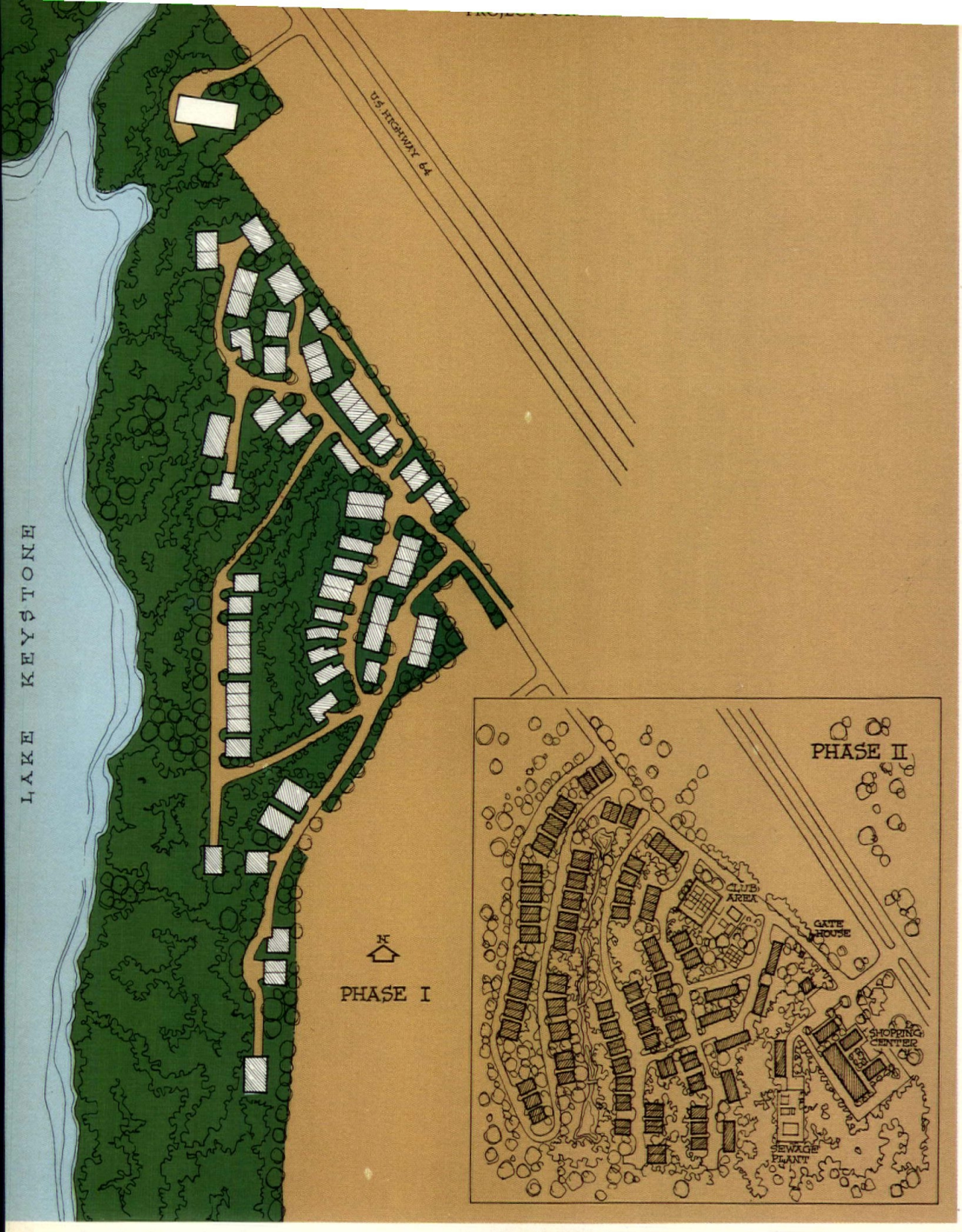
PROJECT PORTFOLIO 24



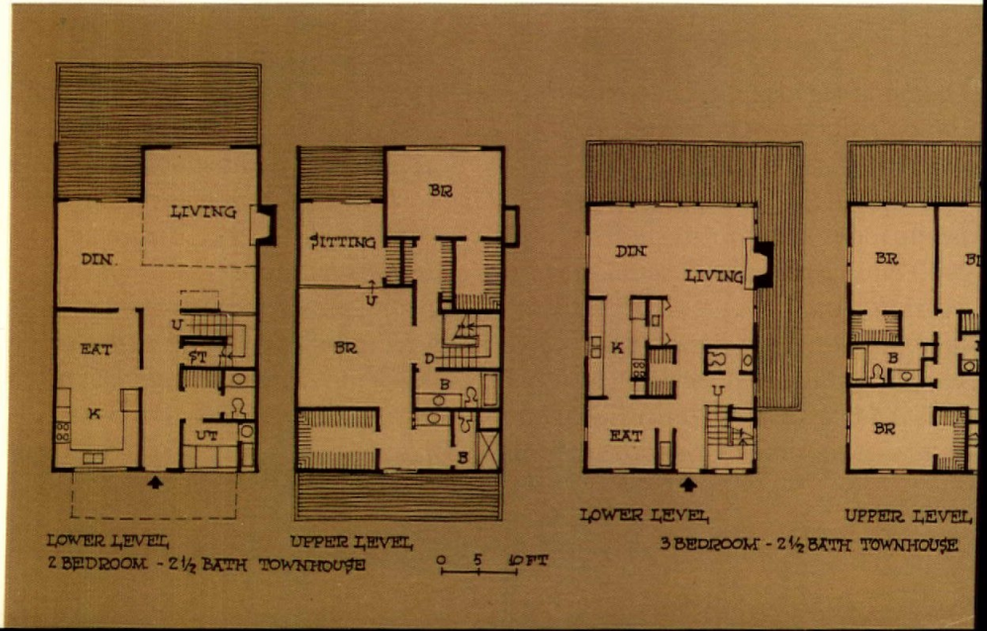
WHEELER-LARSEN

PROJECT: Diamond Head
LOCATION: Lake Keystone, Oklahoma, 15 miles from downtown Tulsa
DEVELOPER: The Alexander-Frates Company, a partnership of
Robert A. Alexander and Rex D. Frates
ARCHITECTS/LAND PLANNERS: Byron Salsman; Fell, Brusso, Knoles and Courtright
ENGINEERS: K. N. Cox & Associates; Fell, Brusso, Knoles and Courtright
INTERIOR DESIGNER: Mary Carolyn Brothers
SITE AREA: 53 acres
NUMBER OF UNITS: 188 condominium townhouses, singly and in groups of
two, three and four
PRICE RANGE: $40,000 to $140,000

Diamond Head is a good example of how to develop a beautiful but extremely difficult site without bulldozing it to death. As the photos above show, the site's chief assets are heavy tree cover and slopes that provide unobstructed views of a 26,000-acre lake and hills beyond. On the debit side, the steep terrain (some roads are built to grades of 33%) creates very difficult construction problems, especially since the tree cover was to be left as nearly intact as possible. And to top it all off, rock lies just below the surface in most areas, making any sort of digging a very expensive process. Faced with these problems, the developer managed to bring in a handsome luxury project at from $35 to $45 a sq. ft. Details shown on the next four pages include engineering solutions to some of the tougher terrain problems.



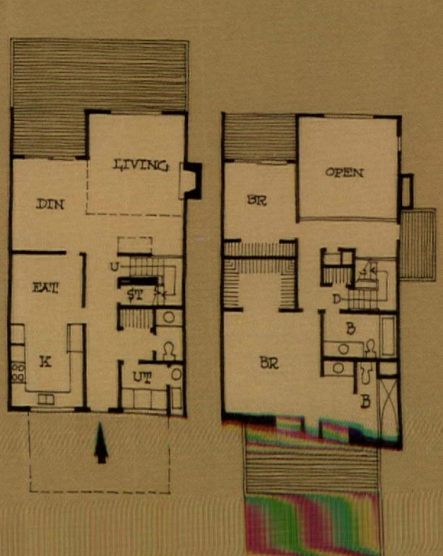
Site plan for the first phase is shown above; it has 69 units on 20 acres. The second phase, 119 units on 33 acres, is shown above right. Adjacent to both sections is an expressway which allows residents to reach downtown Tulsa in 15 minutes. The developer expects to lease a 200-acre government-owned tract south of phase two and operate it as a public park with marina facilities.



Rock outcroppings and vegetation were left intact as the photo at left shows. Foundation excavations were ripped with dozers and cut with jackhammers; little blasting was required. Foundations are cast-in-place concrete columns and beams. Many units have garages beneath and entrances on the uphill side, others have atttached or separate garages.

Stairways lead from upper units to a network of nature trails below. The trails also serve as drainage structures for rain runoff.

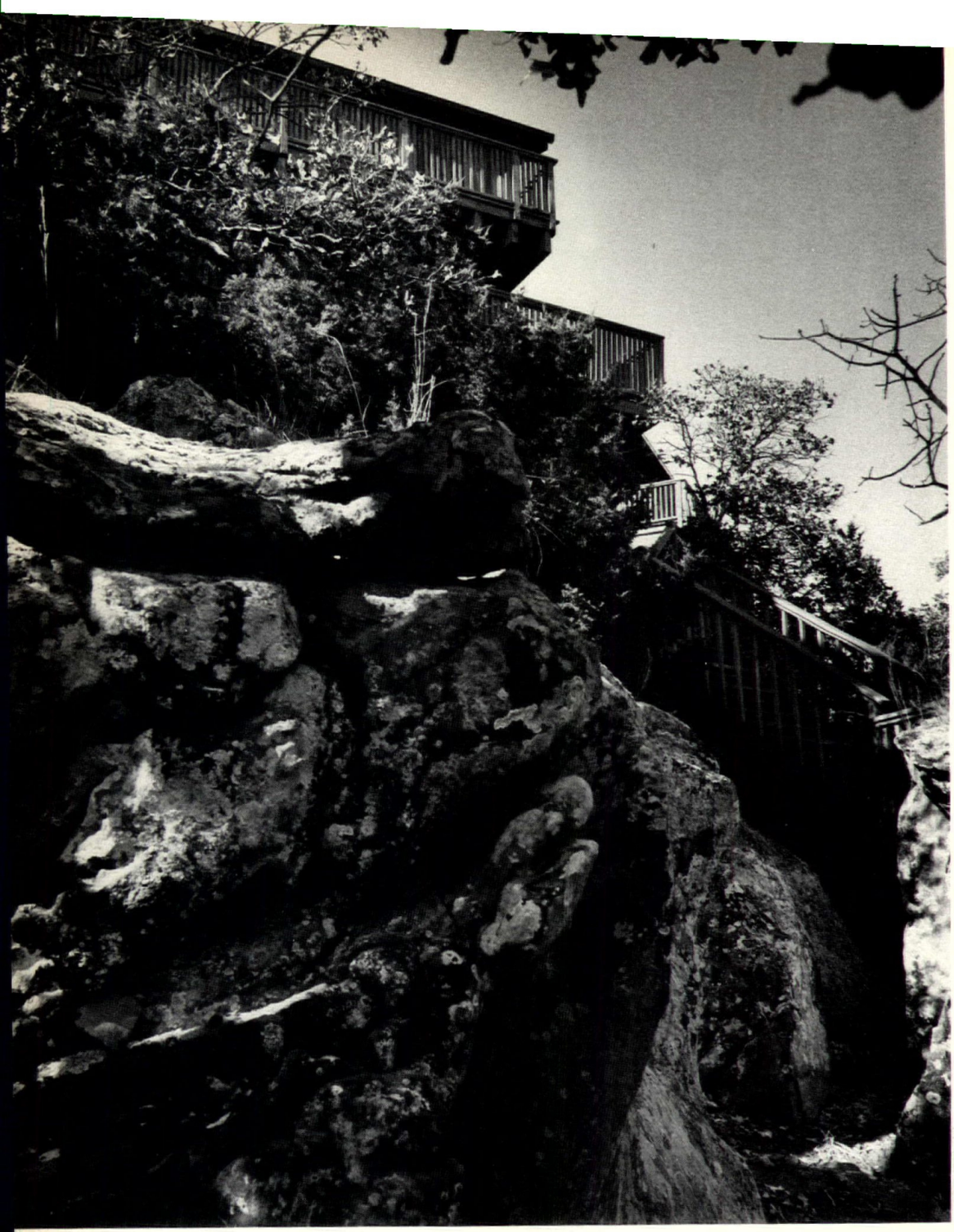
PHOTOS: WHEELER-JARSEN



LOWER LEVEL UPPER LEVEL

2 BEDROOM 2½ BATH TOWNHOUSE

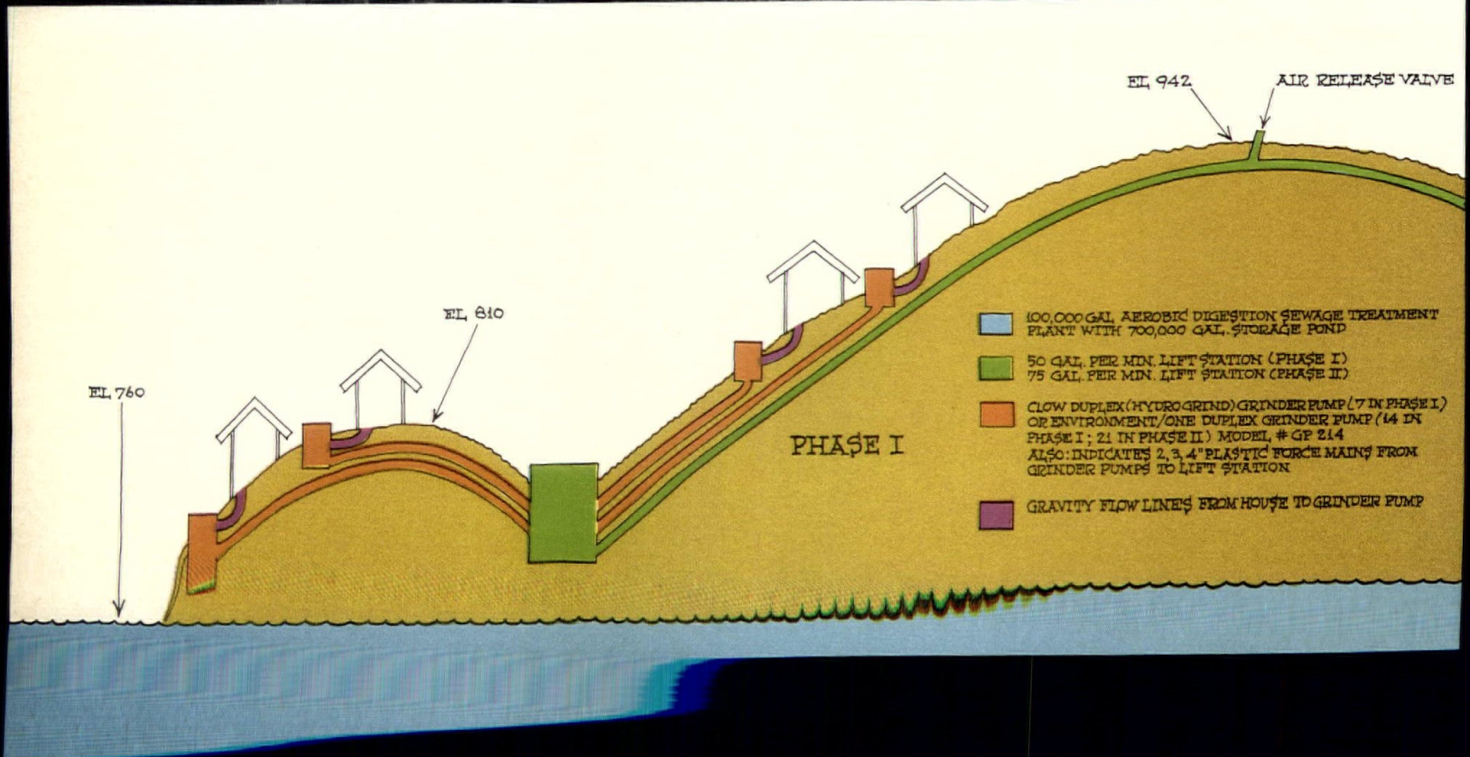
Houses are built singly, and as two-, three- and four-unit buildings. The two-bedroom, two-and-a-half-bath model *(far left)* is available only as a single. It is the best seller—mostly to empty nesters. Prices start at $72,000. The three-bedroom, two-and-a-half-bath model *(center)* comes in twos. Prices start at $58,000. The two-bedroom, two-and-a-half-bath unit *(right)* with cathedral ceiling comes in threes and fours. Prices start at $50,000.



WHEELER-LARSEN

The steep, rocky site posed engineering problems

The picture at left is typical of the terrain—steep sandstone outcroppings and dense woods on top of bedrock. It was economically impossible to cut in roads. And similarly, it wasn't practical to deeply trench for sewer lines. The solutions to both these problems are shown at right and below.



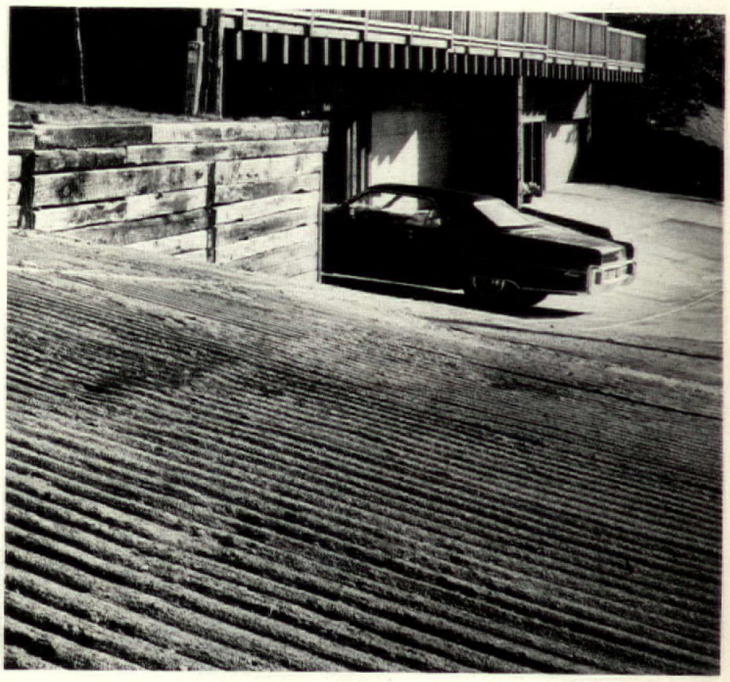
Problem 1: How to handle road traction and rain runoff

Roads had to be built on grades as steep as 33% (the average is 15%), so a corrugated finish also helps channel runoff water into roadside drainage structures hidden by railroad ties. The ties also function as sidewalks.

To support roads and parking areas, pina-treated beams and poles were used instead of concrete retaining walls. The reason: it saved money and produced an esthetically-pleasing effect.

All utility lines were buried in the road right-of-ways.

In steep ravines, drainage structures about two feet deep, made of ties, rocks and concrete, also serve as nature trails. Nature lovers who walk the trails usually wind up touring the models.



WHEELER-LARSEN

Problem 2: How to handle long sewage runs over hilly terrain

Diamond Head's nearest possible site for sewage-treatment plant and storage pond was 3,100 ft. and two hills away. So a conventional gravity-flow system—requiring deep trenching, large-diameter mains and multiple lift stations—was economically impractical.

Instead, the engineers turned to a low-pressure system which uses small-diameter laterals and mains that follow the natural land contour in shallow trenches or directly on rock. (Exposed lines are covered with soil and landscaped.)

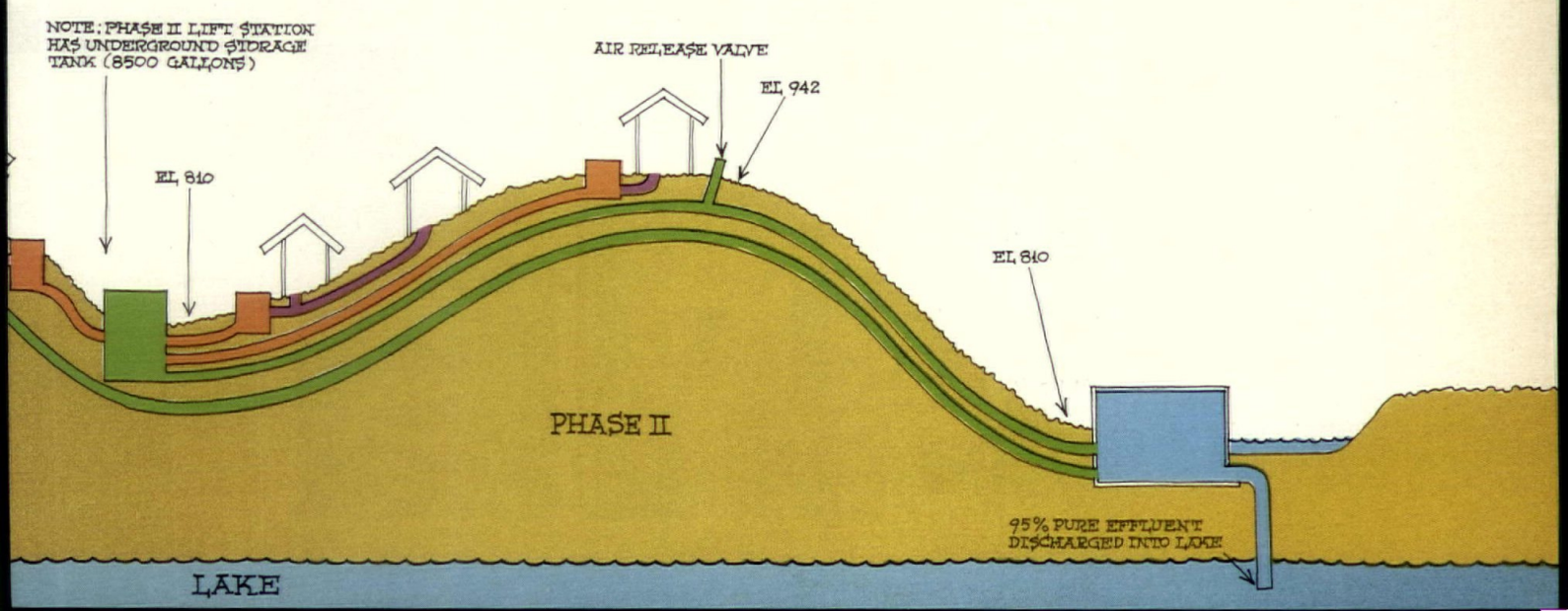
The low-pressure system, shown schematically below, works like this: sewage flows by gravity to a grinder pump (two to six units per duplex grinder pump) which slurries and pressurizes the flow to 35 psi; the flow then moves in a small main to a lift station that works on compressed air. This moves the flow into a larger main through which it is sent up and over the hills until it reaches a 100,000-gallon, aerobic-digestion sewage-treatment plant. After treatment, a 95% pure effluent is discharged into the lake.

Adjacent to the plant is a 700,000-gallon storage pond which can temporarily hold sewage flow in the event the plant becomes inoperable.

Basic components of the low-pressure system include PVC pipe 1¼ inches in diameter for laterals, and two to four inches in diameter for mains; grinder pumps; and one lift station per subdivision.

The project's sewage system cost $432,000, which includes $282,000 for sewer lines and grinders. "It was this reasonable cost that made the project possible," says Bob Alexander. (Site development work, not including the sewage system, cost $1.5 million.)

Though Diamond Head's low-pressure sewage system averaged $2,300 per unit, a more typical cost—on less rugged terrain—would be $1,000 to $1,500 per unit, according to Environment/One Corp., makers of the grinder pumps.



1975 WINNERS

Twenty-seven entries have won awards in the 20th annual Homes for Better Living program, the oldest and largest design competition devoted solely to housing. First Honor Awards will go to 11 entries and Awards of Merit to 16 others.

Three architects are multiple winners: Fisher-Friedman Assoc. of San Francisco, which took two honor and two merit awards; Baken, Arrigoni & Ross Inc. of San Francisco (three merit awards); and Myron Goldfinger of New York City (one honor and one merit).

Two juries—one for custom houses and one for production housing—spent two days judging 377 entries at the headquarters of the American Institute of Architects, which sponsors the program in cooperation with HOUSE & HOME.

The production-housing jury lauded the high environmental quality of most of the multifamily entries, particularly noting the careful integration of buildings with their sites. But the jury was disturbed by what it felt was an indulgence in architectural fads—for example, the use of wood-clad chimneys even when they clashed with basic designs.

By contrast, the custom-house jury was pleased by a trend away from in-vogue architecture and had high praise for the variety of design schemes offered by the 211 custom entries.

—JUNE R. VOLLMAN

Production-housing winners

1. Rental apartments

2. Townhouses

3. Remodeling

4. Rental apartments

5. Vacation housing

6. Attached villas

7. Condo apartments

8. Rental apartments

9. Rental apartments

10. Townhouses

11. Prototype vacation home

12. Military housing

13. Rental apartments

14. Remodeling

15. Flats and duplexes

FIRST HONOR AWARD

1. Branford, Conn.; Arch.: Dehar Buchanan Assoc.; Builder: Charles Sturgess and Co.

2. Houston, Tex.; Arch.: Fisher-Friedman Assoc. AIA; Builder: Green Mark, Inc.

3. Boston, Mass.; Arch: Gelardin/Bruner/Cott, Inc.; Builder: Gelardin-Bruner Inc.

4. Newport Beach, Calif.; Arch.: Fisher-Friedman Assoc. AIA; Builder: The Irvine Co.

5. The Sea Ranch, Calif.; Arch.: Obie G. Bowman; Builder: Matthew D. Sylvia

AWARD OF MERIT

6. Ponte Vedra Beach, Fla.; Arch.: Freedman/Clements/Rumpel; Builder: Blosam Contractors Inc.

7. Truckee, Calif.; Arch.: Bull Field Volkman Stockwell; Builder: Murchison Constr. Co.

8. San Francisco, Calif.; Arch.: Backen, Arrigoni & Ross Inc.; Builder: Williams & Burrows

9. San Francisco, Calif.: Arch.: Chan/Rader & Assoc.; Builder: TransBay/Lathrop/Low

10. Houston, Tex.; Arch.: Fisher-Friedman Assoc. AIA; Builder: Green Mark, Inc.

11. Lake Katonah, N.Y.; Arch.: Myron Goldfinger; Builder: G. N. Gironda

12. Finegayan, Guam; Arch.: Mackinlay/Winnacker/McNeil AIA & Assoc.; Builder: RSEA (Guam) International Corp.

13. San Mateo, Calif.; Arch.: Backen, Arrigoni & Ross Inc.; Builder: Bennington Constr.

14. Princeton, N.J.; Arch.: William H. Short; Builder: SBH Builders Inc.

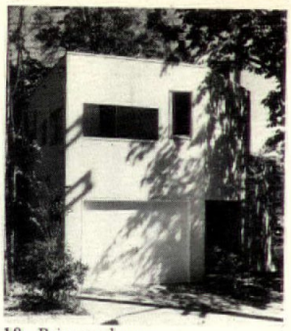
15. Foster City, Calif.; Arch.: Fisher-Friedman Assoc. AIA; Builder: Vintage Properties

The juries

Production-housing jury, standing from left: William Howe, architectural student, Boston Architectural Center; Donald Sandy Jr. AIA, San Francisco, Calif.; John Lawson AIA, Philadelphia, Pa.; Richard Aeck AIA, Atlanta, Ga. Clarence Kettler, builder, Gaithersburg, Md. Seated: June R. Vollman, associate editor, HOUSE & HOME; Ray Crites, FAIA, Cedar Rapids, Iowa, jury chairman.

16. Primary home

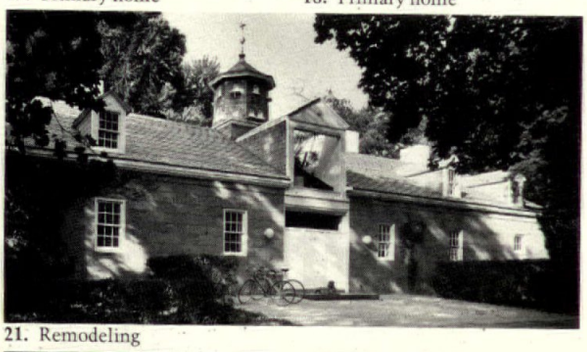
17. Primary home



18. Primary home

19. Primary home

20. Vacation home

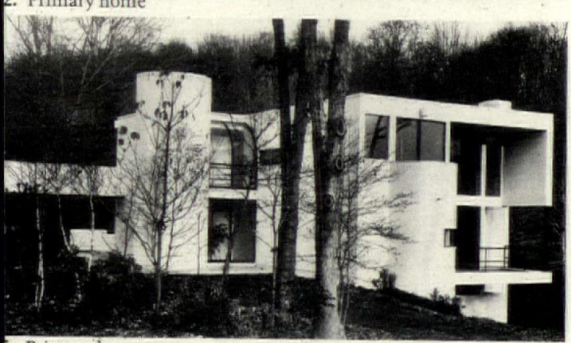


21. Remodeling

22. Primary home

23. Remodeling

24. Primary home



25. Primary home

26. Vacation home

27. Vacation home

FIRST HONOR AWARD

16. Sausalito, Calif.; Arch.: Natkin & Weber, Architects/Planners; Builder: Ludvik Limberger

17. Suburban Pennsylvania; Arch.: Hugh Newell Jacobsen FAIA; Builder: A. William Csink

18. Seattle, Wash.; Arch.: Hobbs Fukui Assoc.; Builder: John S. Reed

19. Harbor Springs, Mich.; Arch.: Richard Meier and Assoc.; Builder: Jordan Sheperd Inc.

20. Westhampton, N.Y.; Arch.: Hobart Betts; Builder: Ralph Otis

21. Bedford, N.Y.; Arch.: Myron Goldfinger; Builder: John Allen

AWARD OF MERIT

22. Lewisboro, N.Y.; Arch.: Alfredo De Vido; Builder: N/A

23. Southern Wisconsin; Arch.: Stanley Tigerman & Assoc.; Builder: Lee Whitmore

24. San Francisco, Calif.; Arch.: Backen, Arrigoni & Ross Inc.; Builder: N/A

25. Westchester County, N.Y.; Arch.: Christopher H.L. Owen; Builder: Larchmont Constr. Co. Inc.

26. Solon Spring, Wisc.; Arch.: Parker Klein Assoc. Architects Inc.; Builder: Chet Lambert

27. Martha's Vineyard, Mass.; Arch.: Bartholomew Voorsanger AIA; Builder: Pierce J. Kirby Jr.

(For photo credits, see contents page)

Custom-house jury, from left: James Nagle AIA, Chicago, Ill.; William Kessler FAIA, Grosse Pointe, Mich., jury chairman; Don Solomon AIA, San Francisco, Calif.; Willis Mills Jr. AIA, Chatham, Mass.; Walter Wagner AIA, editor, *Architectural Record.*

ZONING
NEW PROBLEMS IN THE POST-CRUNCH HOUSING INDUSTRY

The causes of the problems are already apparent.

First, there's the problem of front money. It's going to be much harder to get than in the booming pre-crunch era.

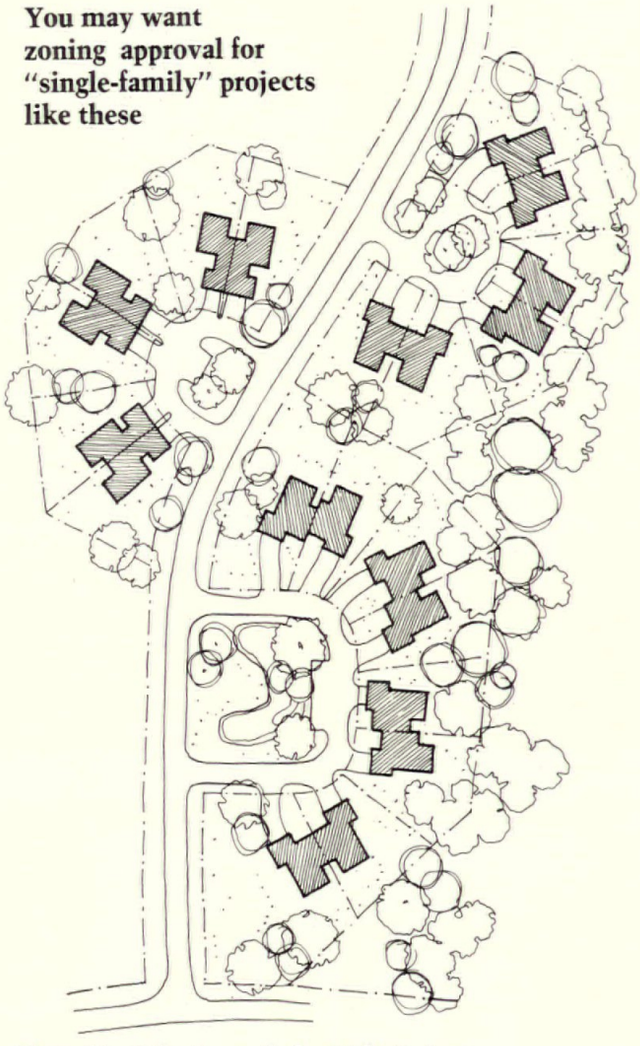
Then there's the problem of the buyer's wallet. It's thinner, and for the immediate future at least he's going to be very cautious and very tight-fisted.

Finally there's the problem of the rapidly changing market. For the moment, the buyer is off condominiums and other forms of multifamily and is buying predominantly single-family homes. But this will change, and it may change quickly if construction costs continue to rise. And although rental apartments are moribund right now, a slight change in the rent/cost equation could bring them back rapidly.

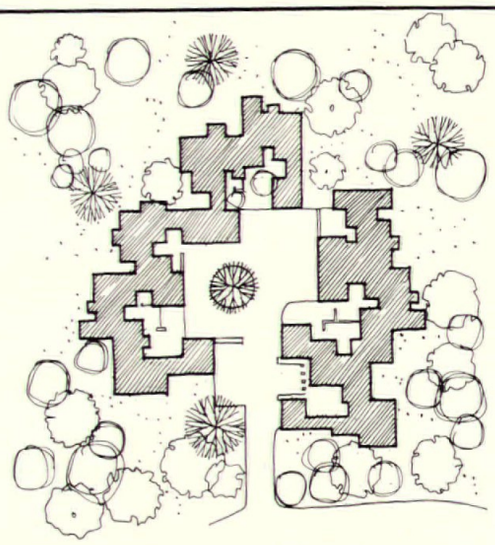
All of these factors will affect zoning.

Tight front-end financing means that the developer will be unable to control as much

You may want zoning approval for "single-family" projects like these

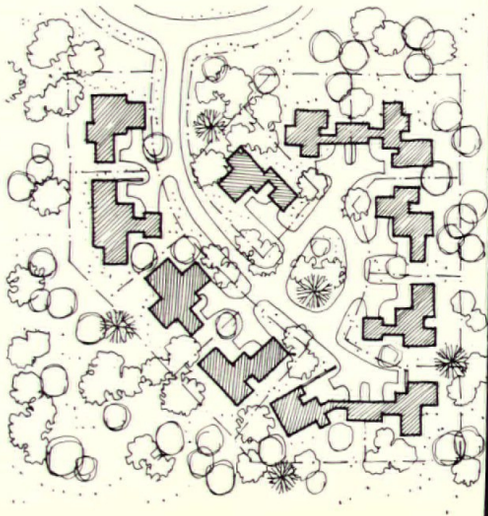


Planned by Rahenkamp, Sachs, Wells & Assoc., the projects you see here show how the need for higher densities is drawing the detached house into such tight clusters that it is becoming attached, but without losing its single-family feeling. The duplex plan above nets out at 4 d.u. per acre and still contributes to the project's open space.



With this cluster layout, 250 attached single-family units have a net density of 4 d.u. per acre. Result: 178 acres of the 250-acre site are left untouched.

Most of these units are actually detached, although some are joined at the garage. Gross density of the project is 2.4 d.u. per acre, net is 4.



acreage as he used to, so his projects are likely to be much smaller.

Tight buyers will force a less expensive housing unit. It will be smaller, and will be built at higher densities to cut raw-land and development costs.

The present preference for single-family houses means, for the moment at least, that developers will have to get approval for single-family units at higher-than-usual densities.

And the changing market means that while the developer still needs contract zoning that protects him against confiscatory zoning changes after he's started work, he also needs the flexibility to change his products to meet the changing market.

For the developer already experienced in PUDs, the new zoning scene will not be too different from the old. He is used to the problems of persuading a community to rezone for multifamily housing at higher densities than conventional single-family.

But for the builder whose previous work has been largely confined to single-family, the zoning situation will be more traumatic. In the market that seems to be shaping up for the immediate future he has a chance to do very well—if he can meet the demands outlined above.

To see how this can be done, and to find out what kind of a reception the builder can expect from the community, House & Home *talked to Walter Sachs, partner in the planning firm of Rahenkamp, Sachs, Wells & Assoc. of Philadelphia, and for several years a* House & Home *columnist on the subject of planning and zoning.*

Sachs sees these predominant zoning problems for the developer:

1. In most communities, building at higher densities will run afoul of the existing single-family zoning. Will it be best to file under a PUD ordinance, ask for a variance—or is there something else the developer can do?

2. In many communities, smaller houses may run afoul of minimum square-footage limits.

3. Even if the developer gets the approval he needs today, he may need something different tomorrow. He can't be locked into his zoning, even if he is doing a small project with a relatively short build-out time. So his approval must include the right to go back to the town at a later date to adjust the mix, the unit type, and perhaps even the density.

A corollary point: Not only does the developer need zoning changes, but to keep costs down he may also have to get some changes in subdivision and building-code regulations. Existing regulations often require road, water, sewage and drainage systems that are ridiculously over-engineered for the use to which they will be put.

These, then, are the developers' immediate zoning needs in the post-crunch market. What is the town's reaction likely to be?

The town has a stake in encouraging new development

Thus in many instances the developer's demands may not be as unrealistic as they seem.

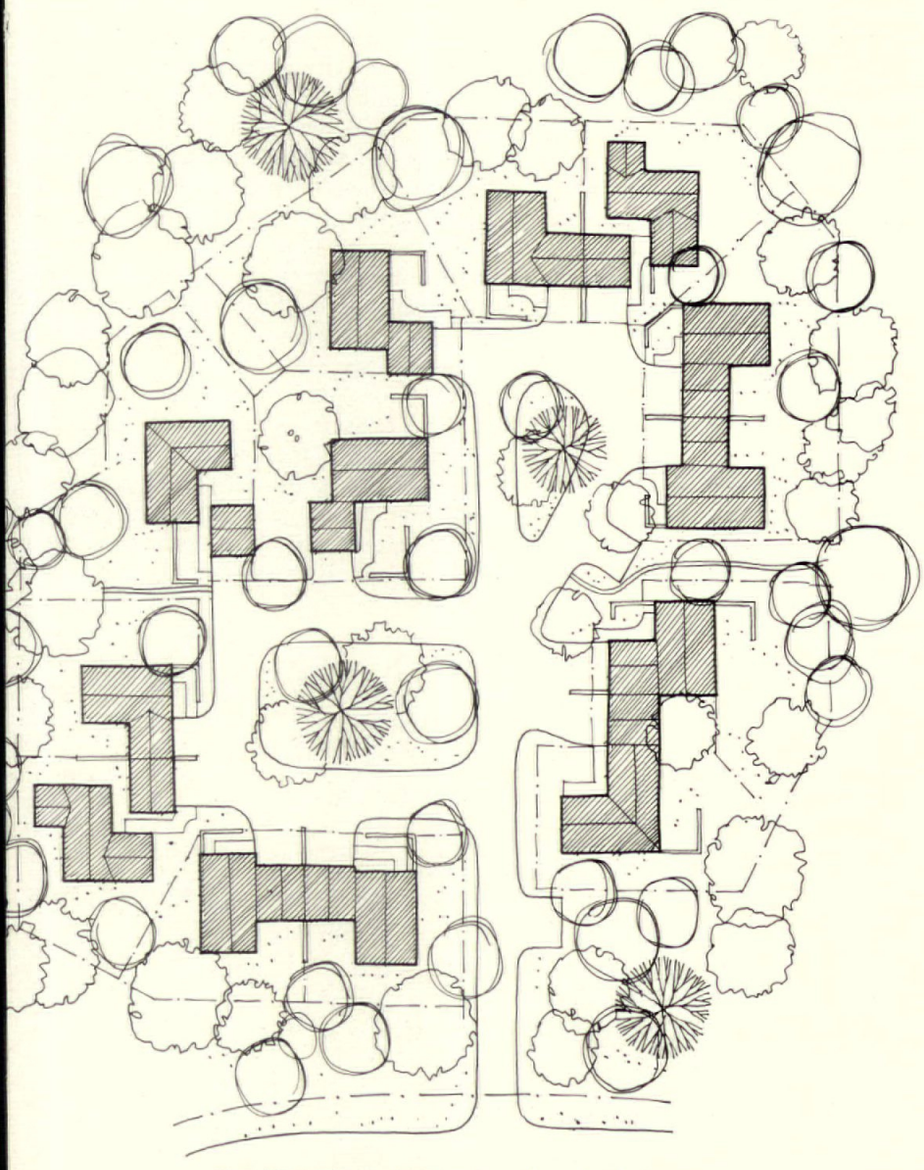
The current recession has hurt the financial position of many towns and made them realize that development is necessary if they are to balance their books and keep their taxes fairly stable.

In addition, towns with exclusionary zoning are finding it increasingly difficult to preserve the status quo simply by going to court—witness the recent Mount Laurel, N.J. decision that not only struck down the existing zoning laws, but required that the community accept its fair share of the region's moderate- and low-income families (see page 32).

Thus towns are looking to contract or PUD zoning to give them bargaining power to control the inevitable changes.

Sachs believes that more and more contract zoning will be on the basis of performance—or impact—standards. And, in fact, many towns are using the breathing spell provided by the current slowdown to inventory their natural resources and their infrastructures so that they can react more intelligently when the development process begins again.

"Towns are likely to be more sophisticated than they were in the past," says Sachs, "even though many are less opposed to new housing than they used to be. The developer should not think he has an easier game to play when he goes back with his next project." TO NEXT PAGE



Touching only at their garages, these single-family units are built at 5.3 d.u. per acre—13 units on 2½ acres.

But the town has a basic conflict to resolve

It's the conflict between the developer's need for more flexibility and the town's need for security. A large PUD in which the developer commits himself to building a certain number of specific unit types each year for, say, ten years makes it much easier for the town to plan its capital budget than smaller chunks of development in shorter time-frames.

This conflict between flexibility and security has always been there, but it was easier to deal with in the past when everyone had an exuberant let's-get-on-with-it attitude.

There are other problems, too. Many towns are still wedded to no-growth and many still firmly believe that all development is bad. In addition, people don't trust their government as much as they used to, so there is a strong tendency to much broader community review of proposed projects. Conservation groups, homeowners' associations, the League of Women Voters and similar organizations are all getting into the act.

Taxpayer suits are becoming more common as many of these groups recognize their legal rights. The mere threat of such a suit exposes a developer to a major financial risk—another argument in favor of smaller projects with less exposure.

On the other hand, smaller projects are more likely to be built close in and therefore to abut built-up areas. Thus more neighbors will be directly affected.

"And it's much easier," says Sachs, "for a town to make a commitment to one or two big PUDs than to take the time to evaluate ten smaller ones."

Sachs believes that smaller projects will increase the pressure for towns to have a fairly systematic method of contract zoning—which is where performance zoning fits in.

But in the absence of such performance zoning, what can the developer do to get what he needs?

The developer has several ways to get flexibility

These will vary, of course, according to local conditions and whether or not the town has a PUD ordinance.

A good approach is for the developer to look for community problems he can help solve. These may be fiscal—the need to raise taxes because single-family homes are generating too many schoolchildren, for example. Or they may be physical—inadequate sewage or drainage facilities. Or market—lack of housing for teachers, policemen, firemen, etc.

From the outset the developer should try to involve the whole community in his project, and deal with community groups openly and factually.

"Don't believe that you can make a private political deal," says Sachs. "When a client tells us he's wired in politically and that he'll get approval if we plan his project a certain way, it rarely turns out to be true."

Whenever possible, the developer should try to reach a tacit understanding with the town that he will not create negative impact on it if the town does not lock him into a development plan. In return for flexibility, the developer promises that his demands will not exceed the town's capabilities; in other words, he will not create a tax deficit, substantially upset the town's demographic characteristics, or create a public burden, such as traffic congestion at intersections or an overloaded sewer or water system.

In some parts of the Midwest, developers working under such an arrangement agree to pay for any negative impact on the town out of their profits. Or they put aside a community benefit, such as a school site, to give to the town if they create a negative impact.

"For this kind of negotiation to be successful," says Sachs, "it's absolutely essential that the developer do his homework." This means he must calculate both his and the town's break-even points and translate them into housing types and densities that will give him a reasonable profit and produce a tax surplus for the town.

Once this is done, the developer can bracket his negotiations with the town and keep them in an area that will be beneficial to both.

But what if the town lacks a PUD ordinance, which is the usual vehicle for such negotiations?

It's not the end of the road if there's no PUD

For one thing, a developer who thinks he needs a PUD ordinance can always draft one and offer it to the town. This has been done successfully many times.

Sometimes, however, it's better not to go the PUD route. If a town already has a strong conventional single-family market and excess school capacity, it often makes more sense to build single-family homes because there's no need to create favorable school-district impacts. Thus the developer may merely want the right to cluster and build at higher densities.

Also, there may be little incentive to go PUD if there is already a fairly heavy concentration of multifamily housing in the area; in fact, the developer may want to balance out the community with some single-family homes.

Further, it can be downright dangerous to try to go PUD in some areas, such as parts of the Southeast, where there is no underlying zoning by right—in other words, where the developer does not have the option to at least build single-family homes on large lots if he gets strung out in the PUD process. In such cases the developer has no leverage because he has nothing to revert to.

Some sites can't support the higher densities of the usual PUD. They may be too steep or they may have other environmental constraints—soil problems or flood-plain locations, for example—so that they can only be developed by large-lot zoning.

Finally, some sites may just be too small for mixed uses, and thus the developer may merely want the ability to cluster and go to a higher density.

There are several legal routes other than PUD for accomplishing this:

First, the developer might ask for a curative amendment—in effect, legal spot zoning. He does this by filing a plan for his parcel of land and attaching a statement—the curative amendment—for the town to adopt. The statement indicates that the town is making the exceptions to its usual zoning for this one parcel only.

"It's a fairly sophisticated legal tool, but it's being used rather extensively in the Philadelphia area," says Sachs. He points out that the curative amendment has some leverage built into it: if the town does not adopt it, the developer has grounds for a court case. And if the court upholds his position, the town must grant building permits immediately.

Another possibility for a developer who does not want to go the PUD route is to ask for a density modification under the subdivision regulations—in other words, ask for a special exception.

The worst thing a developer can do, according to Sachs, is to ask for a variance.

"A variance implies that the town is creating a hardship for the developer," Sachs explains. "What he's really asking for is a favor, and he has to be ready to counterbalance it by giving something to the town in return."

—NATALIE GERARDI

Management meeting brings together *(left to right)* Project Manager Gary Frye, Executive Vice President Peter Ochs, President Bill Lyon, Treasurer Jim McNamara, Project Manager Jim Bailey and Construction Manager Bill Laws.

LEAN MANAGEMENT

HOW BILL LYON'S TIGHT LITTLE TEAM FATTENS UP SALES AND EARNINGS

By the time builder Bill Lyon merged his company into giant American Standard in 1968, his track record had made him a West Coast Bill Levitt.

The merger lasted four years.

Then Lyon cut loose and once again formed his own company.

With housing on the verge of its big slump, he had not chosen an auspicious time to go it alone. But while many other builders foundered, the new William Lyon Co. prospered.

The evidence:

- *Almost 1,000 sales in 1974—only the second full year of the new company's operation.*
- *Earnings of $4 million in 1974 on a volume of about $40 million.*
- *A 100% increase in one regional division's '74 sales instead of a projected 57%.*
- *A 14% sales increase for the first quarter of 1975 over the same period in '74.*

What's behind such success at such a lean time for homebuilding?

"A lean organization," says Lyon, "that concentrates on basic housing for the mass market."

That's an oversimplification, of course. Here, then, are the guidelines that put the new company where it is today:

'Get rid of middle management'

That was Lyon's first move after leaving American Standard. Middle managers—i.e., sales managers, marketing managers, even general superintendents—were cut out of the table of organization.

The only managers remaining are construction managers, one for each regional division, and project managers.

So, excluding top management, the Lyon company's table of organization now has just three levels: 1) regional managers, 2) construction and project managers, 3) superintendents and salespeople.

The project managers have taken on the roles of sales and marketing managers.

The construction managers serve as their own general superintendents.

Top management—Lyon himself as president and Executive Vice Presidents Peter Ochs and Dick Randall—handles land buying and financing.

Most Lyon executives and managers wear at least two hats. Ochs, for example, doubles as Southern California regional manager. And Randall, who just moved up to executive vice president, will continue to manage the Northern California region.

Besides eliminating many salaries, Lyon's streamlined table of organization saves time by speeding up communication between levels. For example, Randall meets with his construction manager every day for progress reports on his six projects, and he communicates directly with salesmen because he is his own sales manager.

"Despite any forms and reports we may use," says Ochs, "the heart of our control system is a monthly all-day meeting of top management with the regional and project managers."

TO NEXT PAGE

'All-purpose project managers are about as plentiful as hens' teeth'

The meeting's standard agenda: 1) reviews of all budgets, 2) reports on profit margins for each project, 3) a detailed status report on each project, those in planning as well as those on the market.

'Don't put specialists on the payroll'

Everybody at the Lyon company is a generalist, except for construction people, salespeople and the treasurer. And the salespeople don't really count because they're on straight commission rather than salary.

Lyon had its fill of staff specialists during the American Standard days. The parent company wanted Lyon to enter a lot of markets quickly, so specialized help was added freely, including a staff engineer, staff architects and staff advertising men. The main-office staff rose from 12 people to 60, each with his or her own specialty.

When the new Lyon company was set up, all those specialists went the way of the middle management people—off the T.O. chart.

Now the company buys as many services as possible from outside specialists and discourages specialization among its own staffers. Even Lyon secretaries do more than type and file. Randall's for example, spends part of her time handling FHA processing, a task that some other builders of Lyon's size consider a full-time job.

Lyon, like the legendary Parkinson, finds two things wrong with staff specialists, the second resulting from the first: They make work for themselves to justify their positions, and they waste money. Randall cites some specifics: "In-house merchandising people encourage unnecessary frosting; in-house architects waste time trying to improve on perfectly good plans."

At American Standard, Lyon even had a sign-and-office-display specialist . . . "with the result," says Randall, "that we had three times as many billboards as we needed, and most of them were too far away from the projects to do us any good."

And a former Lyon merchandising specialist used to spend hundreds of dollars photographing each new model home to have a precise record of every accessory down to the smallest ashtray. Reason: When accessories were stolen, they could be replaced with exact duplicates.

"What for?" asks Randall. "The salespeople can tell you when missing accessories leave a room looking sparse, and then you just add new ones. They don't have to be duplicates."

But outside specialists can waste money, too. So Lyon never gives an expert carte blanche. Notable examples: some interior designers.

"Builders often make a big mistake with decorators," says Ochs. "They bring in a top name, give her a budget, and tell her to go to work on the models. What makes them think the decorator knows their markets as well as they do?"

Ochs, who thinks a decorator can easily misread a model and the market it's intended for, insists on tryouts. Each new set of models is bid out to several decorators, but to get the job they must put on a presentation showing the colors, furnishings and furniture arrangements they have in mind—plus, of course, the cost.

'Let the project manager do it all'

Instead of spreading the work for each new project among layers of middle managers and staff specialists, Lyon puts everything in the hands of one person.

Each project manager usually carries at least five projects,

OUT ON THE JOB . . .

Executive VP Dick Randall *(in light jacket)* checks out partly finished houses with Jim Pirtle, construction manager.

Construction Manager Bill Laws *(in suit)*, of Lyon's Southern California region, confers with George Lacho, one of his job supers.

some in planning and some on the market. He shepherds each project from planning to groundbreaking to selling. So he's responsible for market research, marketing (including design, pricing and advertising), cost estimating, zoning, loan packaging and setting up homeowners associations. However, he's not responsible for construction—that's the regional construction manager's job—or for major financial decisions.

Under the old table of organization, loaded with department heads and specialists, no one person knew the exact status of any project under development. Buckpassing was easy because no one other than top management had full responsibility for job progress and profitability.

Under the new table of organization, the project manager answers for:

1. The bottom line—i.e., making sure that profits really are 10%.

2. The lead time between project planning and construction, which means riding herd on engineers and architects, planning commissions and city councils.

3. The sell-out period, including the efforts of salespeople and the effectiveness of merchandising materials.

How can a project manager also function as a sales manager?

"Actually," says Ochs, "he has an edge over a sales manager in dealing with salespeople. He can handle their construction problems faster because he works hand-in-glove with the construction manager. And because a project has been his baby from the start, he can convey more enthusiasm and give the salespeople more information."

Project managers aren't expected to instruct salespeople in the art of selling. For that job the company brings in a professional sales motivator for sales-staff seminars and pep talks.

Project managers also aren't saddled with sales closings and all the related paperwork. Closings are handled by the treasurer working with an escrow company.

Finding an all-purpose project manager of the William Lyon variety isn't easy: "They're about as plentiful as hens' teeth," says Ochs. "You can find guys with the qualifications, but they're usually too high up in their companies to consider working as project managers."

So Lyon manufactures its own managers. Ochs explains: "We find candidates with at least half of the qualifications we need and teach them the rest on the job." Two examples:

- Gary Frye, a market-research analyst for Lyon during the American Standard years and, for 2½ years after that, a land-acquisition specialist for another builder.
- Jim Bailey who had coordinated the work of up to nine builders, including Lyon, for the Irvine Company.

Generally, Lyon favors candidates with marketing rather than financial backgrounds.

"They need just enough financial experience to make profit-and-loss decisions," says Ochs. "But they need enough marketing sense to come up with the right product and the right program for selling it."

Two other essentials: stamina and incentive. The job takes stamina because Lyon's project managers don't delegate their work to anyone; they do it all themselves. And that often means 16-hour days and seven-day work weeks. The company provides the incentive: a percentage of the bottom line for each project.

'Develop know-it-all managers'

"They've got to have all the answers," says Ochs. "So we insist that they get firsthand experience with everything they're in charge of."

For example: He thinks every project manager should find out how title searches are handled by doing the title company's real-estate paperwork for a year.

Ochs also doesn't want his managers to be totally dependent on outside experts. That happened when the company did its first PUDs. Ochs recalls the experience:

"We grew up in the single-family business, so we were babes in the woods about landscaping an entire project. We went to landscape architects for those first PUDs and just gave them carte blanche. And we ended up with the wrong plants in the wrong locations, landscape-maintenance problems and excessive costs."

The remedy: "We had to get our people just as heavily involved in landscape architecture as they are in model-home decorating and every other facet of our product."

How? "We invited landscape architects to lecture managers and supers on how to read landscape specs, what to look for in landscape plans and how to be sure the plant materials they receive are what the company paid for."

Now Lyon controls its landscape plans as tightly as its house plans: "We spend money only where it will benefit the sales effort and the buyer," says Ochs.

'Limit your growth'

Unlike many builders, the new William Lyon Co. knows exactly how big it wants to be—both in volume and in geographic spread.

"We want to build from 1,200 to 1,500 units a year," says Ochs, "and no more." The company closed 519 sales in 1973, its first full year of operation, and 932 in 1974. This year the aim is a conservative 850.

Lyon limits its market to California. A regional office in San Jose serves the northern half of the state; the headquarters office in Newport Beach and a new office in San Diego serve the southern half.

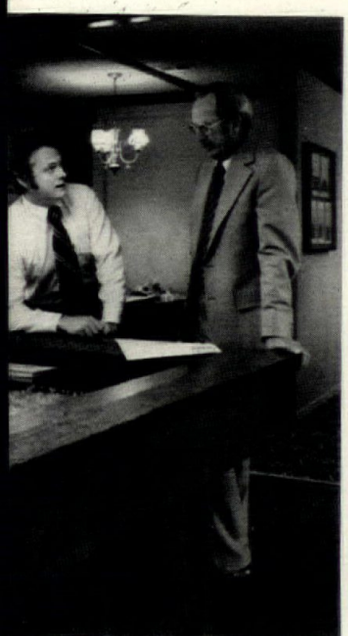
No job is more than an hour's drive from one of the three offices. And the offices, all near airports, are within an hour's flying time of each other.

Lyon also confines its production to for-sale housing for the mass market. "We have no intention of building highrise, luxury homes, or any other kind of specialty products," says Ochs.

Those limits are quite a switch from Lyon's policies under American Standard. Said a company brochure at that time: "Today (1971) the Lyon Company not only builds homes, but also constructs huge apartment complexes, recreational land projects, urban development and builds internationally in South America, the Caribbean and Africa."

In those high-flying days, Ochs was the Lyon's joint-venture manager, responsible for helping the newly acquired company mushroom as rapidly as possible. And mushroom it did: Dollar volume more than doubled in the first year under American Standard, jumping from $20 million in 1967 to $44 million in 1968, and then surged again in the second year to $70 million. Unfortunately, profit percentages didn't follow suit.

Today a wiser Ochs asks, "How big is big enough? That's the first question every builder should ask himself. In 1974, we earned $4 million on $40 million in sales. How much bigger do we need to be?"



roject Manager Gary Frye *(left)*, oubling as sales manager, discusses ales office set-up with salesman)on Rickey.

TO NEXT PAGE

'How big is big enough? That's the first question every builder should ask himself'

'Stay at the low end of the market'

Bill Lyon has been doing that for most of his 21 years as a builder. His forte is singling out the features sought by second-time homebuyers and shoehorning them into basic homes for first-time buyers at the lowest possible price.

Cases in point were the company's 1974 Lyon cluster (attached) homes in Walnut, Calif. They started at $22,990 for two bedrooms, one bath, air conditioning, carpeting, drapes and all appliances.

Recently, a similar approach worked with second-time buyers. Gary Frye explains: "We bought land in a Fullerton, Calif., neighborhood where we could have sold $100,000 houses easily. Instead, we designed a house we could sell for $45,990 to $56,990 by putting it on small lots. Then we loaded it with all the goodies second-time buyers look for—formal covered entries, formal foyers and formal dining rooms." Result: Of the first 42 houses on the market, 35 sold on the opening weekend.

Frye's pricing of detached houses is based on the prices of nearby cluster homes and townhouses: "If you can make your prices competitive with quality attached housing, you're set."

But even Lyon has had to face the realities of today's recession/inflation.

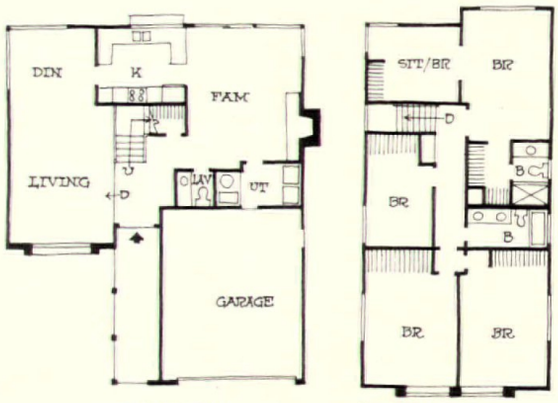
For instance, the company has had to sacrifice some of its traditional features in a single-family tract that opened last year in a lower-priced area of San Jose. The houses started at $28,990 for a three-bedroom, two-bath model, and the first phase of 88 units sold out in four months.

To get the prices down, Lyon used composition roofs instead of wood shakes, plastic-laminate kitchen countertops instead of ceramic tile, plastic-laminate kitchen cabinets instead of wood, concrete-slab floors instead of wood floors on raised foundations, vinyl floor covering instead of carpeting, single instead of double ovens, lower-cost plumbing and lighting fixtures, and reduced square footage. Dishwashers and fireplaces are optional extras.

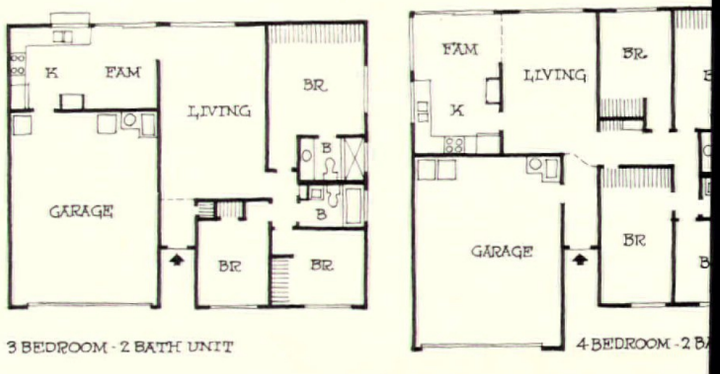
But despite the cost trim-

TYPICAL LYON PRODUCTS . . .

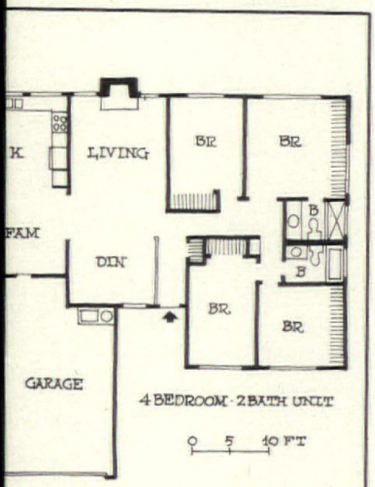
Tile roof and open kitchen are key sales features of this $39,990 model. Kitchen has ceramic-tile countertops, stained-wood cabinets, self-cleaning oven, dishwasher and single-handle faucet.

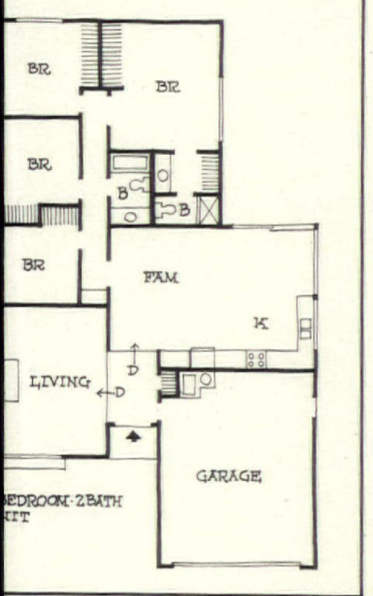


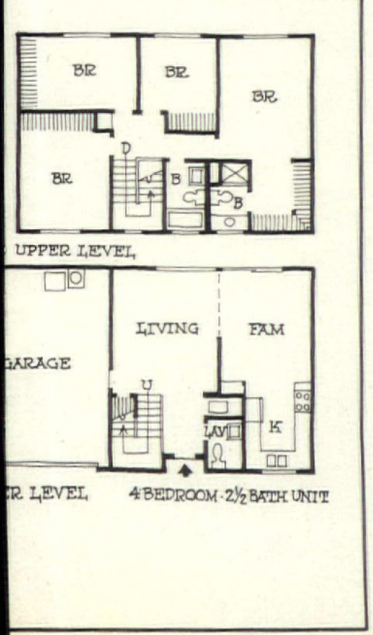
Strong sellers to second-time buyers are recently opened models at a Fullerton tract. Price range starts at $45,990. Prospects bought 35 of the first 42 houses on opening weekend.



Strong sellers to first-time buyers are these models, introduced last year in a San Jose project. Prices started at $28,990. First phase of 88 units sold out in four months.







ming, the houses are far from being stripped down. Still included are entry foyers, family rooms, kitchen-to-patio snack bars, pantries, full-roof gutters, double sinks, half-horsepower garbage disposers and fencing between houses. Says Dick Randall: "There's a limit to how much you can cut and still have a livable house."

To make earnings as well as sales, Lyon guards its profit margins in two ways:

- Construction people don't make a move in the direction of a new building site until management has all the production costs under control. One key control: buying subcontractors' services as far in advance of construction as possible.
- Salespeople don't start preselling until construction is ready to begin.

"That was essential last year," says Ochs. "Construction costs were jumping so fast that we were afraid to commit ourselves to sales prices even a month ahead of production."

'Build in obvious value and promote it'

"We will not be undervalued," say Lyon's current ads. "Compare a William Lyon home to any other new home in the neighborhood. Then come back to us and let us show you how we can beat their value."

How to show them? Lyon does it in three ways:

1. With large rooms. Lyon puts fewer rooms into the same square footage than do most of its competitors. Says Gary Frye: "Rather than include both a family room and a den, we forget the den and put all that space into the family room. We try to create a spacious feeling."

2. With major exterior features. "Prospects should be half sold before they enter the front door," says Randall. With that in mind, he put Spanish-tile roofs on a tract of San Jose houses starting at about $35,000. Normally found only in much higher price ranges, the tile roofs influenced the purchasing decisions of 75% of the buyers, according to Lyon's follow-up surveys. The company also uses stone and brick trim on streetside exteriors.

3. With noticeable interior features. Randall's tile-roof houses, which have now crept up to a $39,990 starting price, include ceramic-tile kitchen countertops, stained-wood kitchen cabinets, self-cleaning double ovens, dishwashers, single-handle faucets, fireplaces with gas log lighters and wall-to-wall carpeting.

"We're competitive on a square-footage basis," says Randall, "But we out-value the competition with our extras."

There are hidden values, too—the half-horsepower garbage disposers, for example, and stone rather than metal cores in single-handle faucets. As a salesperson explains: "Stone grinds up sand particles; metal is scored by sand. So our faucets last longer."

Value also shows up in the overall look of a Lyon project. The company saves trees by taking aerial photos of raw land and laying them over site plans so that tree locations can influence street layout wherever possible. Single-family buyers get sodded lawns and $50 for plants.

'If old plans still work, use them'

Lyon borrows heavily from a series of plans called the "Classics"—so well known in the 1960s that they led to Lyon's becoming the first builder-member of the Brand Names Foundation.

Some "Classics" features sell particularly well today—large "country" kitchens, for example—and completely separate living rooms. Others have been changed or updated: bathrooms and entry foyers are smaller. Kitchens have more cabinets. Ceilings have been raised to roof height in main living areas. And master bedrooms have been dramatized with raised ceilings and double-door entrances.

'Don't pass up small sites'

Developed individually, small sites would be out of the question for Lyon. They can't support full-scale merchandising programs, thus can't be sold out fast enough to profitably sustain a typical Lyon production operation.

"The right size project for us is 150 to 250 units," says Ochs. "We won't even consider anything under 100 units unless it offers a unique opportunity."

But Lyon makes small-site development feasible by piggybacking more than one site on a single, well-located merchandising center. Two examples:

- A low-priced San Jose tract is spread over three sites, and one of them, with only 48 lots, is a half-mile from the furnished models and sales office. Salespeople warm up prospects at the model center and then drive them to the production areas.
- The San Jose tract with the Spanish-tile roofs is actually four tracts, one of which is only four acres. "At five units to the acre, that little site gave us 20 additional lots," says Randall, "and the price was right because to anyone else it was worthless."

An occasional Lyon approach is to use unfurnished models on sites that are too small to support full-scale merchandising. Randall marketed a 77-unit site in seven months that way, duplicating three models from another Lyon sales compound that was too far away to serve the smaller site.

Having the flexibility to handle small sites lets Lyon take advantage of highly marketable parcels in already built-up suburban areas.

"We're going back and filling in," says Randall, "expanding into the outer areas as gradually as possible."

Lyon follows two rules in its piggyback tracts: Make sure the models and sales office are in a permanently visible location on a high-traffic street, and time production plans so that land doesn't have to be held more than 18 months.

—H. Clarke Wells

Postscript: Bill Lyon, a major general in the U.S. Air Force Reserve, has just been named chief of the Reserve by President Ford. If the Senate confirms the appointment, Lyon will move to Washington to devote all his time to the four-year job. Executive Vice President Peter Ochs will then replace Lyon as company president.

A forecast on the All-Weather Wood Foundation.

Five builders talk about America's new foundation:

Clearing

"I could talk all day about the All-Weather Wood Foundation. It can be installed quickly. In almost any weather. The lower level lacks the damp atmosphere of a concrete basement. And the wood foundation saves 18 to 20% on heating and cooling costs." *Gordon Hettinger, Gordon Hettinger Realty, Pewee Valley, Kentucky.*

Sunny

"This All-Weather Wood Foundation has decreased our foundation costs about 20% compared to the concrete footer foundation. It's a lot faster system. Also, the wood makes a drier, warmer basement." *Jack Ruland, Bellante, Clauss, Miller & Nolan, Scranton, Pennsylvania.*

Hot

"I don't know about the rest of the country, but I think the All-Weather Wood Foundation will replace the concrete foundation in the Southwest. It's more efficient. We can install a crawl space foundation in six man hours." *Lee F. Michels, Woodland Homes, Mesa, Arizona.*

Warm

"We've built about 500 wood foundations in seven different states. A great system. For one thing, we have a hard time getting concrete contractors to cover the rural areas. But a regular carpenter crew can handle the All-Weather Wood Foundation." *Larry Gravatt, Master Craft, Inc., Rapid City, South Dakota.*

Sunny

"APA did it again. Sold me on the All-Weather Wood Foundation. Now I plan to build 100 of them for an FHA self-help program. Using six novice homeowners and one advisor, we install the average basement in less than three hours." *Francis "Stub" Roquette, T-Dri Building Systems, Mandan, North Dakota.*

Five builders are a drop in the bucket compared to the hundreds who have started using the All-Weather Wood Foundation in the past year.

The reasons are few but important.

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According to the NAHB Research Foundation, the All-Weather Wood Foundation costs up to $300 less for a typical 1,000 sq. ft. house.

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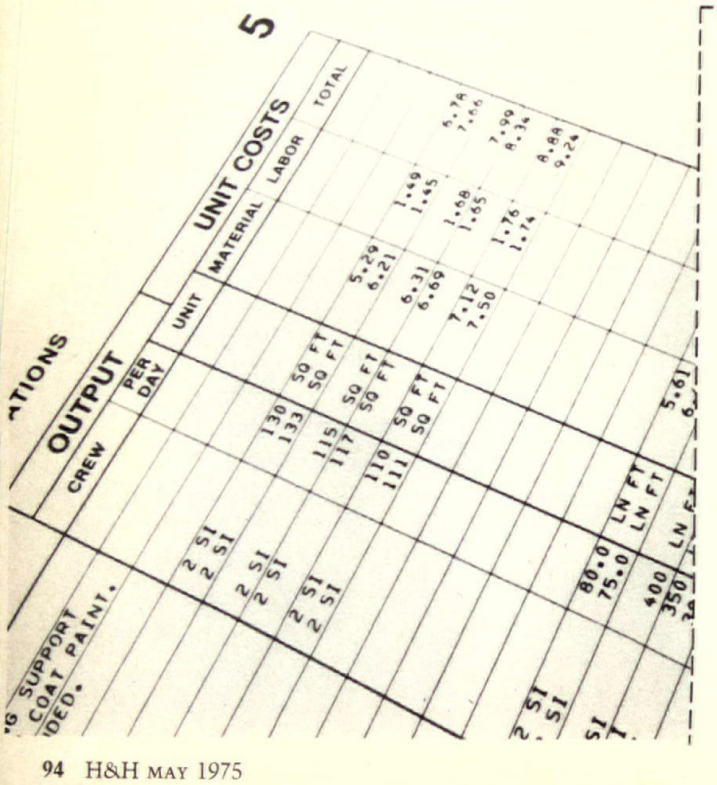

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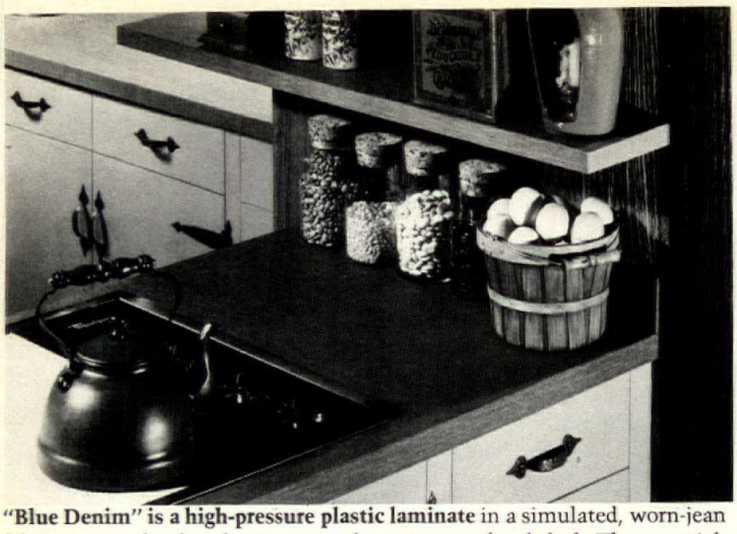
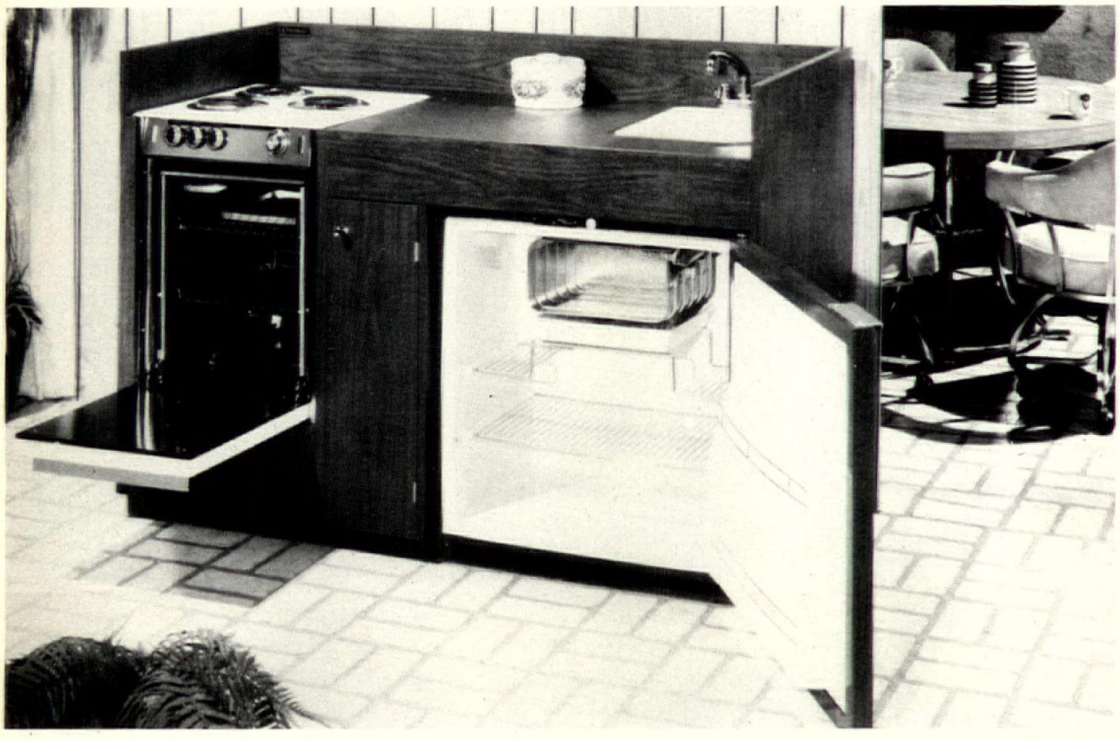
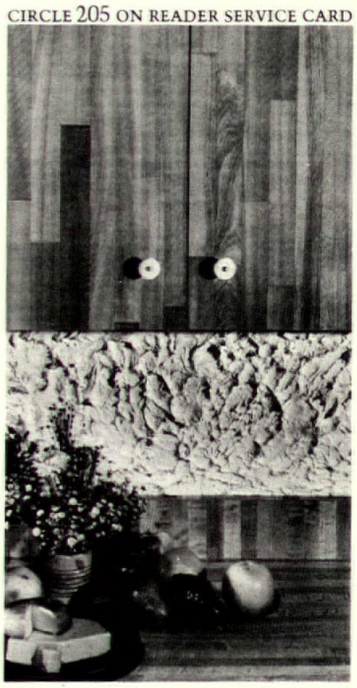


"Blue Denim" is a high-pressure plastic laminate in a simulated, worn-jean fabric pattern that has the texture and appearance of real cloth. The material, which exceeds or meets all NEMA standards, comes in popular sheet sizes. Nevamar, Exxon, Odenton, Md. CIRCLE 200 ON READER SERVICE CARD

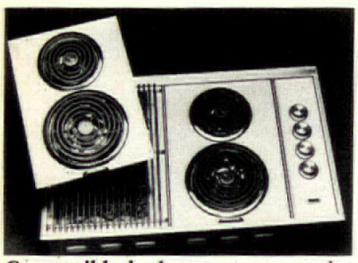


Built-in, compact convertible grill contains an integral ventilation system that pulls smoke and odors down into a surface vent and exhausts them outdoors. Electric unit also accepts a plug-in cooktop. Jenn-Air, Indianapolis, Ind.
CIRCLE 201 ON READER SERVICE CARD

Plastic laminate with a butcher block look is suitable for countertops, cabinets or built-ins. The line, consisting of five woodgrains, includes "Random Plank," shown on the cabinets, and "Cross Grain," shown on the countertops. Wilson Art, Temple, Tex.
CIRCLE 205 ON READER SERVICE CARD



Modular compact kitchen is a four-in-one unit that includes a refrigerator, sink and drop-in electric range with a three-burner cooktop and a bake-and-broil oven. Cabinet comes in a choice of colors. Cervitor, South El Monte, Calif.
CIRCLE 202 ON READER SERVICE CARD



Convertible barbecue range can be easily changed from a stainless steel, four-element cooktop to an electric grill. Used with overhead ventilation, the unit features interchangeable, plug-in modular heating elements with infinite controls. Distinctive Appliances, North Hollywood, Calif.
CIRCLE 203 ON READER SERVICE CARD

Custom-look range hood, "Heritage," is offered with a choice of ten different power units. Hood, which can be equipped to meet the specific needs of any kitchen, has a funnel shape and twin filters for greater efficiency. Nutone, Scovill, Cincinnati, Ohio. CIRCLE 204 ON READER SERVICE CARD

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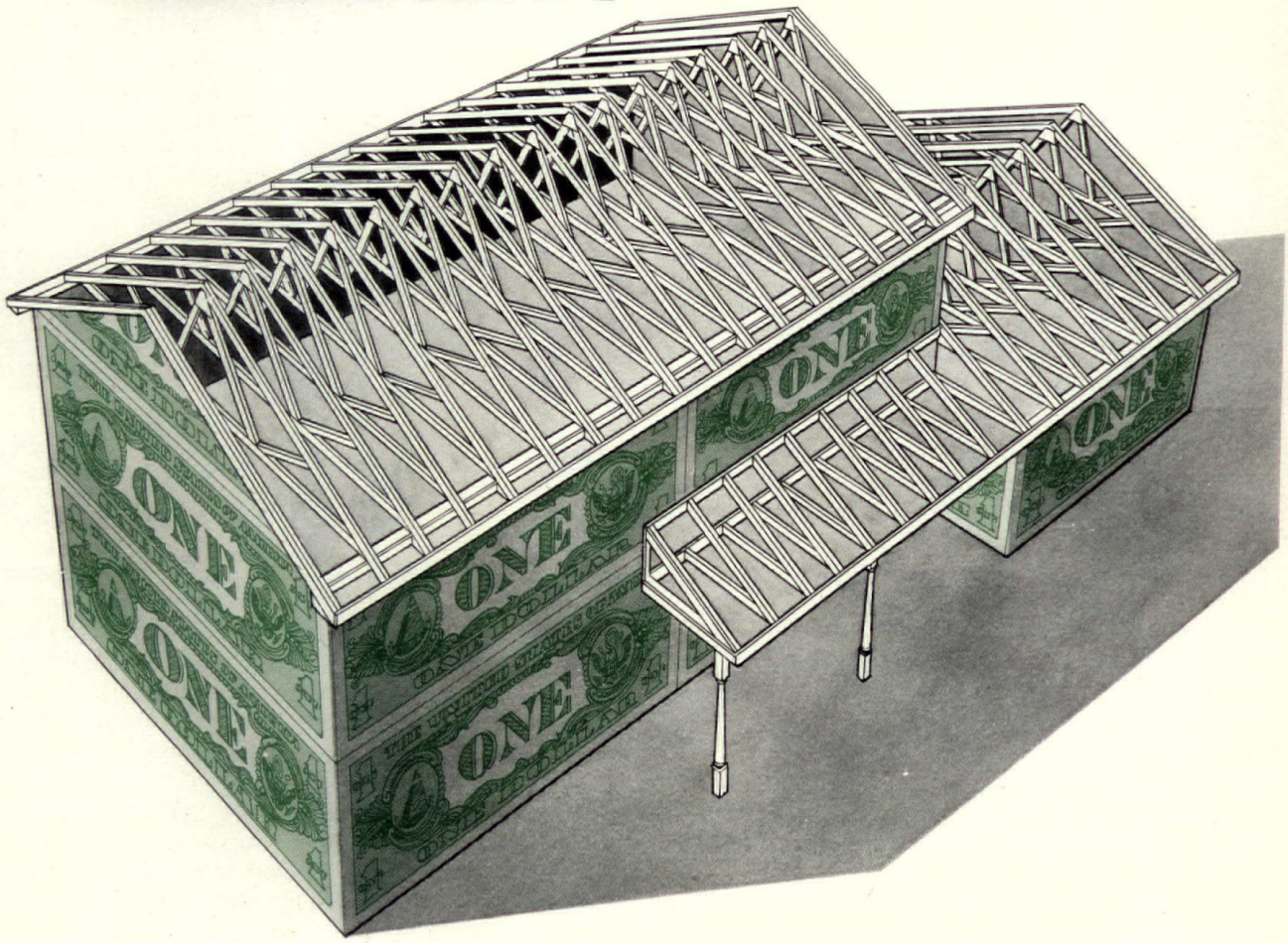

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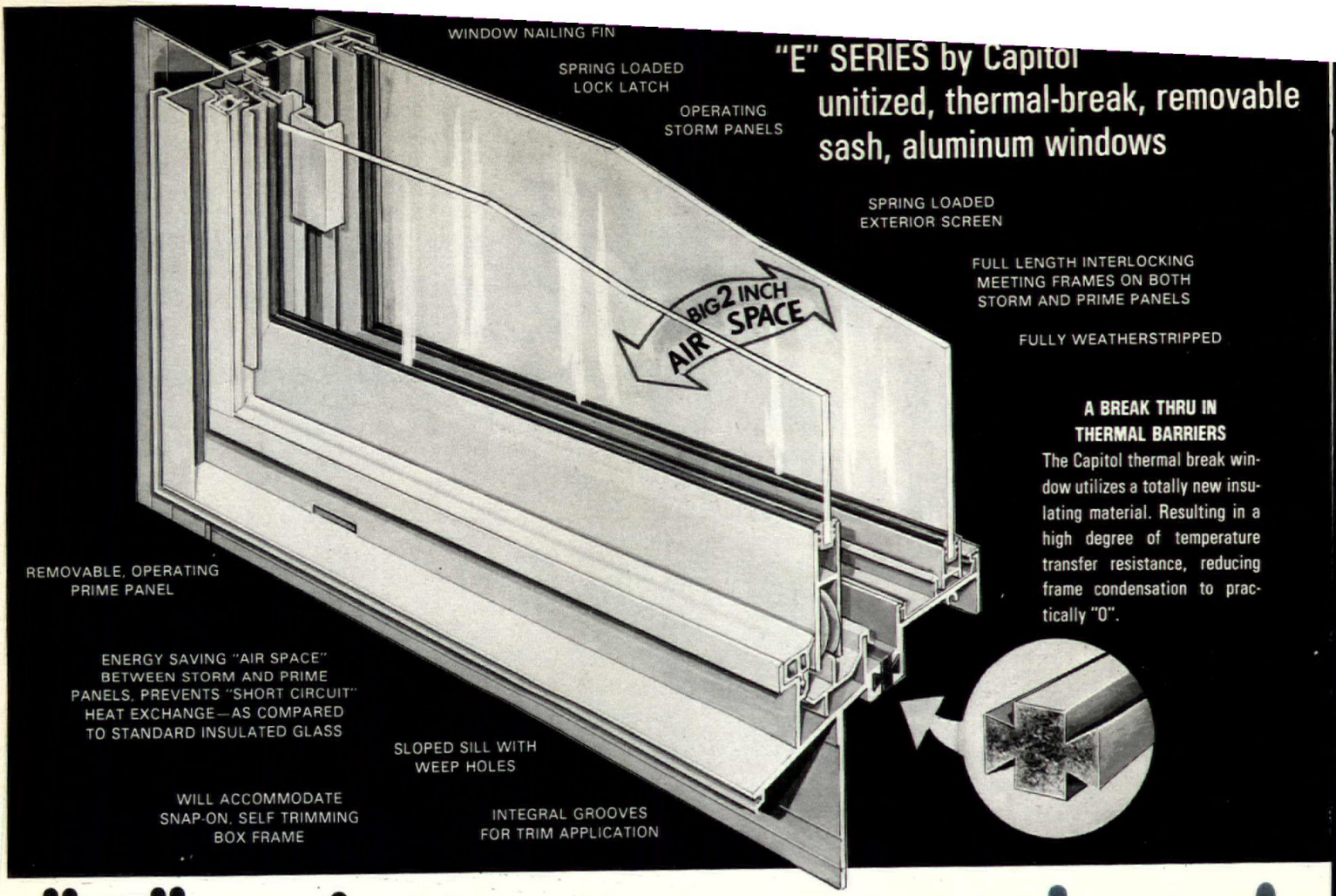

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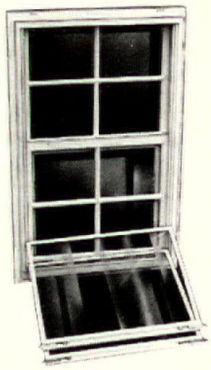

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BEFORE LONG, PEOPLE ARE
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IN FACT, SO MANY PEOPLE ARE SWITCHING TO LOAD-BEARING BRICK, IT'S BEGINNING TO LOOK LIKE AN OLD FASHIONED FRAME-UP.

I. M. Pei has built an elegant townhouse community in Philadelphia. With load-bearing brick.

Harrison & Abramovitz has designed three new chapels at Brandeis University. With load-bearing brick.

And Lundgren & Maurer has even put up a Holiday Inn in Missouri. With load-bearing brick.

In fact, more and more alert designers are turning to load-bearing brick today, instead of framing their buildings with concrete and steel. And given today's economy—and tomorrow's as well—architects and builders are going to be singing the praises of load-bearing brick for quite a few years to come.

Episcopal House/Reading, Pennsylvania Architect: Muhlenberg, Green and Varies

Actually, load-bearing brick is a revolutionary old product. But with a few new wrinkles in the past few years.

Unlike the 6-foot-thick walls of the famous old Monadnock Building in Chicago, contemporary bearing walls now measure no more than 12 to 15 inches, for buildings of a dozen stories or more.

Because in the old days, bearing-wall construction was the product of empirical design, which is a nice way of saying "flying by the seat of your pants." But today, thanks largely to the pioneering of recent Swiss and German designers, there's a rational basis to the design of load-bearing walls.

As you know, high-rise construction with load-bearing brick is like stacking one-story buildings on top of each other. So, all things being equal, you can put up a building faster with load-bearing brick—maybe even a lot faster. And you can put it up for less money—maybe even a lot less money.

But don't take our word for it. Ask us to send you an American Appraisal Company study, in which all things were equal, that proves you can save your client anywhere from 13 to 30 per cent over the cost of concrete or steel frame construction. In every one of the 200 largest cities in America.

Brinkley Towers/Oxon Hill, Maryland/Architect Collins & Kronstadt, Leahy, Hogan, Collins

So, for the right kind of building, it's obvious that load-bearing brick has come of age. Again.

(The right kind of building, by the way, is one that's fairly compartmentalized: apartment buildings, hospitals, nursing homes, libraries, classroom buildings, dormitories, hotels—in fact, just about anything except office buildings, where tenants like to knock out interior walls and change things around from time-to-time.)

And at Richtex, we're uniquely equipped to help you take advantage of the bearing-wall renaissance. Because we've got a newly automated plant for making load-bearing brick. Which means you can now design a bearing-wall building with the assurance the brick will be there when you need them.

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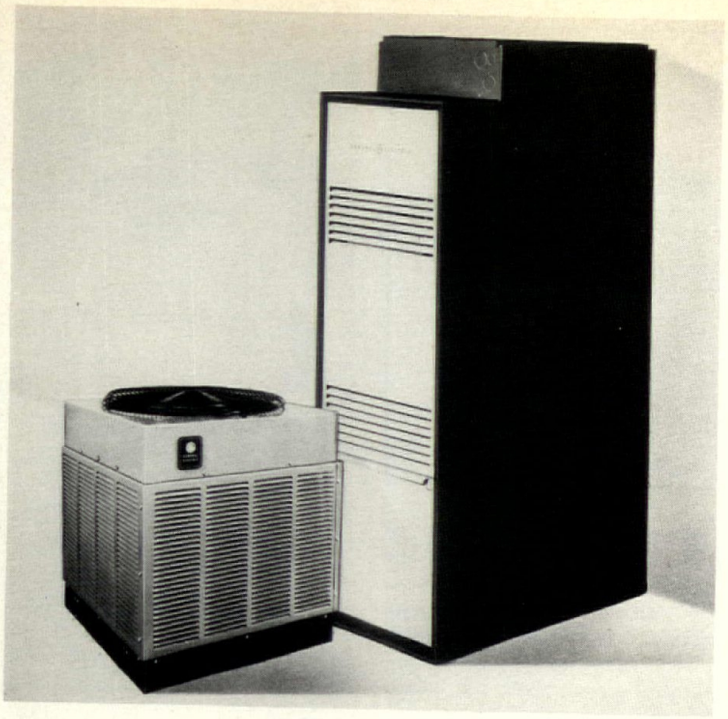
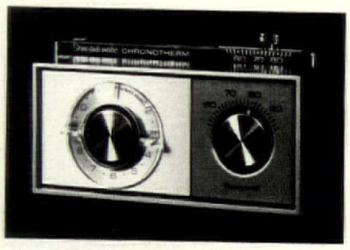
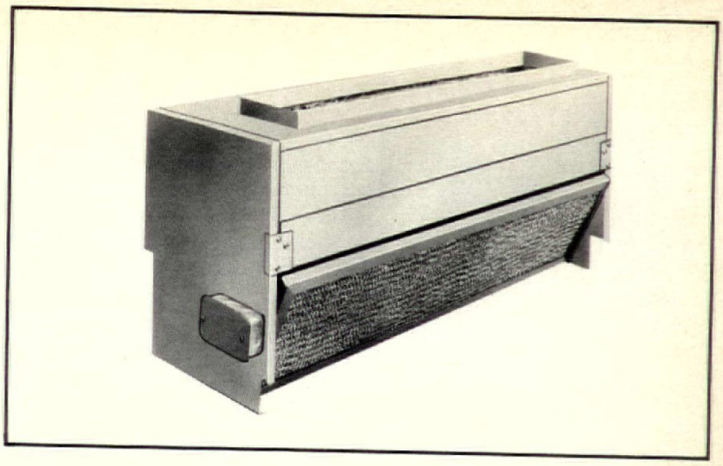


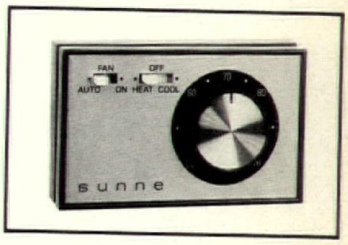
Total home comfort team for both heating and cooling is a combination of a standard central air conditioner and an Ambassador gas furnace. Coupling these two versatile appliances offers a wide range of heating and cooling capabilities. General Electric, Louisville, Ky.
CIRCLE 260 ON READER SERVICE CARD





Room fan coil unit is designed for concealed under-window installation. The low-boy model shown is one of nineteen available in the line. Self-contained units, offered in a range of capacities from 200 to 4,000 CFM, can be equipped with a variety of options. Carrier, Syracuse, N.Y.
CIRCLE 261 ON READER SERVICE CARD

Semi-automatic thermostat incorporates a hand-wound timer that operates like an oven timer. This device allows for day and night setbacks of up to 12 hours. Unit looks like an electric-clock model but has the manual timer instead. Honeywell, Minneapolis, Minn.
CIRCLE 262 ON READER SERVICE CARD



Sensitive electronic thermostats are used with a proportioning step-control device to control heat pumps, electric furnaces, boilers and heat ducters so energy input matches space heating needs. This minimizes cyclic overheating and energy waste. Sunne, Portland, Ore.
CIRCLE 263 ON READER SERVICE CARD

more products on page 104

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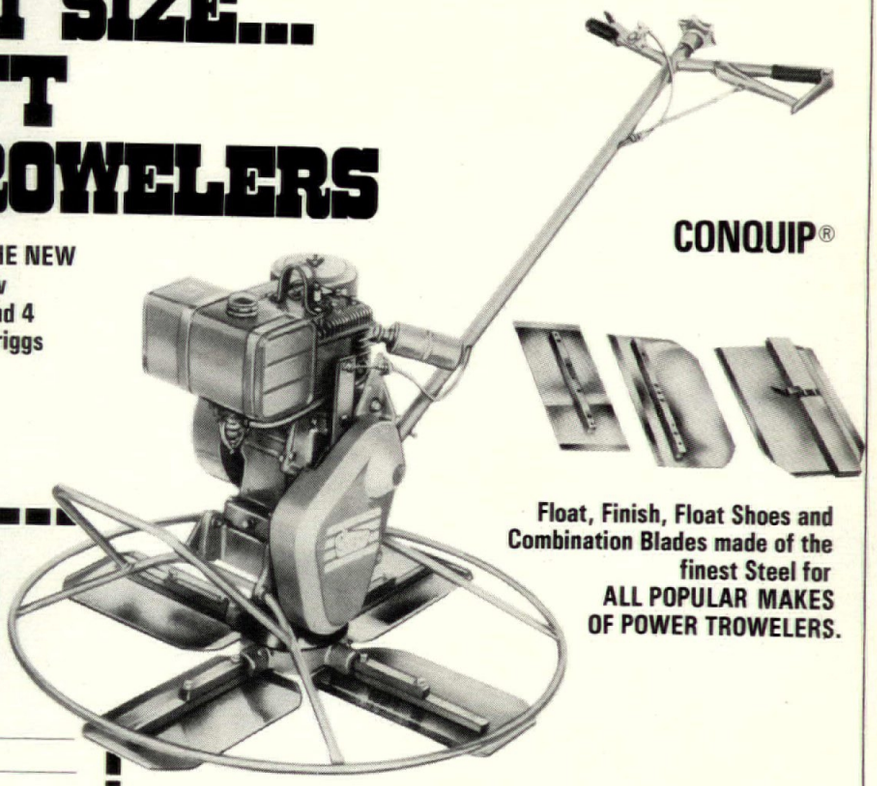

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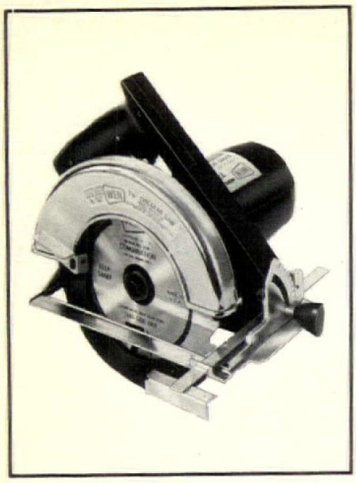
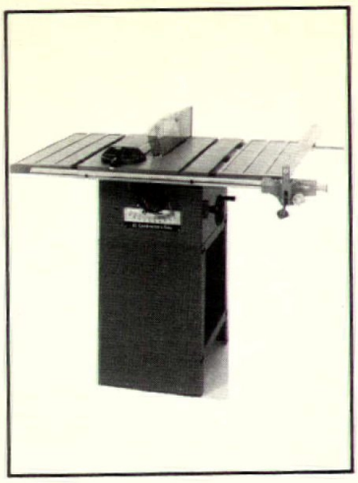


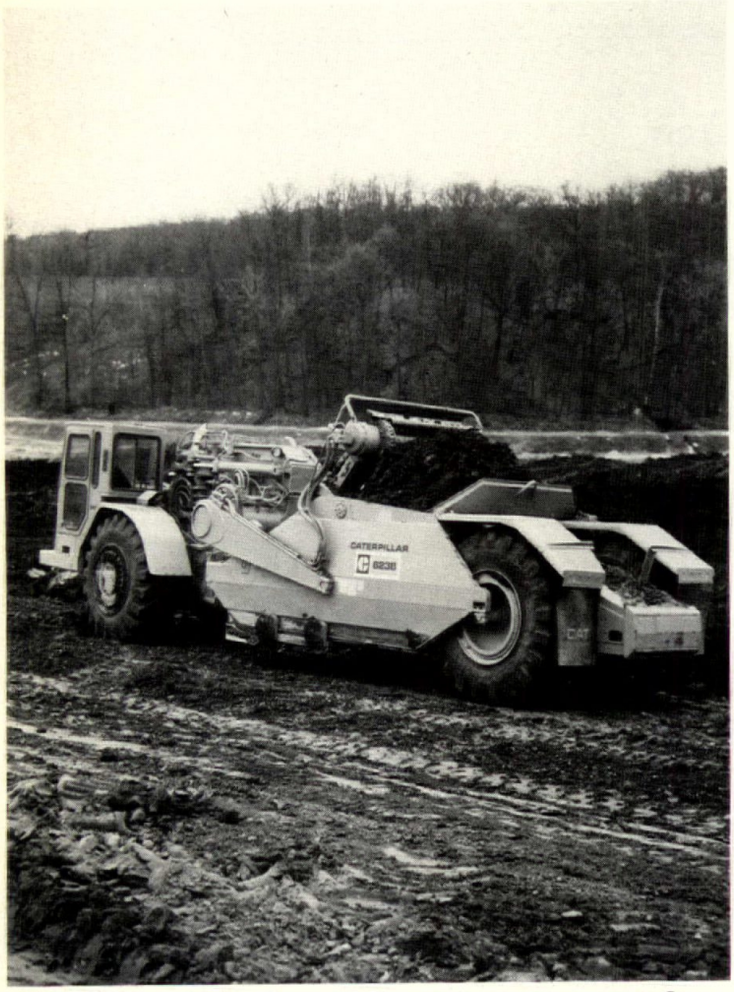
Roller-bearing 7¼" circular saw is powered by a 2 hp, 12 amp, 5100 rpm motor. Lightweight unit is built with double insulation and a unitized motor. Saw features a chrome-plated guard and base assembly and a chrome-nickle combination blade and rip guard. Wen, Chicago.
CIRCLE 248 ON READER SERVICE CARD

Crawler-mounted trencher is a heavy-duty multi-purpose machine for high-production, service-line work. Compact 30 hp unit has a 70,000-lb.-test digging chain and chisel-type cutter that digs to 60" deep. Vermeer, Pella, Iowa.
CIRCLE 249 ON READER SERVICE CARD



Heavy-duty 12" table saw can cut material up to 4⅛" thick at 90° and up to 2 13/16" thick at 45°. Unit features a jet-lock, micro-set rip fence for increased capacity and accurate alignment. Saw is equipped with a see-through blade guard for safety. Rockwell, Memphis, Tenn.
CIRCLE 251 ON READER SERVICE CARD

Redesigned utility breaker, model "BHF-30," has increased impact-performance. The self-contained, lightweight tool provides 33 ft.-lbs. per blow at 1,350 blows per minute. Improved tool is engineered for safety. Wacker, Milwaukee, Wis.
CIRCLE 252 ON READER SERVICE CARD



Improved elevating scraper has a variable-capacity torque converter. Operator can control the amount of horsepower directed to the wheels so that the maximum is available to the hydraulic system for elevator operation. Unit, with increased steering angle, has cushion-hitch feature that reduces stress. Caterpillar, Peoria, Ill. CIRCLE 250 ON READER SERVICE CARD

Crawler/loader, "JD350-C," with oil-cooled clutch and brakes features a wet-clutch steering system. Powered by a three-cylinder, 42-net-hp diesel engine, the unit has a four-speed transmission with hydraulic direction reverser. Vandal protection is standard and OSHA-approved ROPS is available. John Deere, Moline, Ill. CIRCLE 253 ON READER SERVICE CARD

more products on page 1

"People who buy my homes want carefree living. I use KitchenAid dishwashers because I want it, too."

"KitchenAid dishwashers don't give me problems," says Jim Tackett, of Longfellow House and Gardens in Pascagoula, Mississippi.

"I've been installing them in homes for about fourteen years. And during that time I've had very few complaints or calls for service.

Recently, we installed forty-four KitchenAid dishwashers to replace those of another brand which were only about 8 years old."

His customers recognize KitchenAid quality and dependability. Jim finds that KitchenAid does more than help make life a little easier for him after he sells a home or rents an apartment. It also helps show his customers that they're buying a quality-built home in the first place.

Maybe specifying KitchenAid dishwashers can do the same for you.

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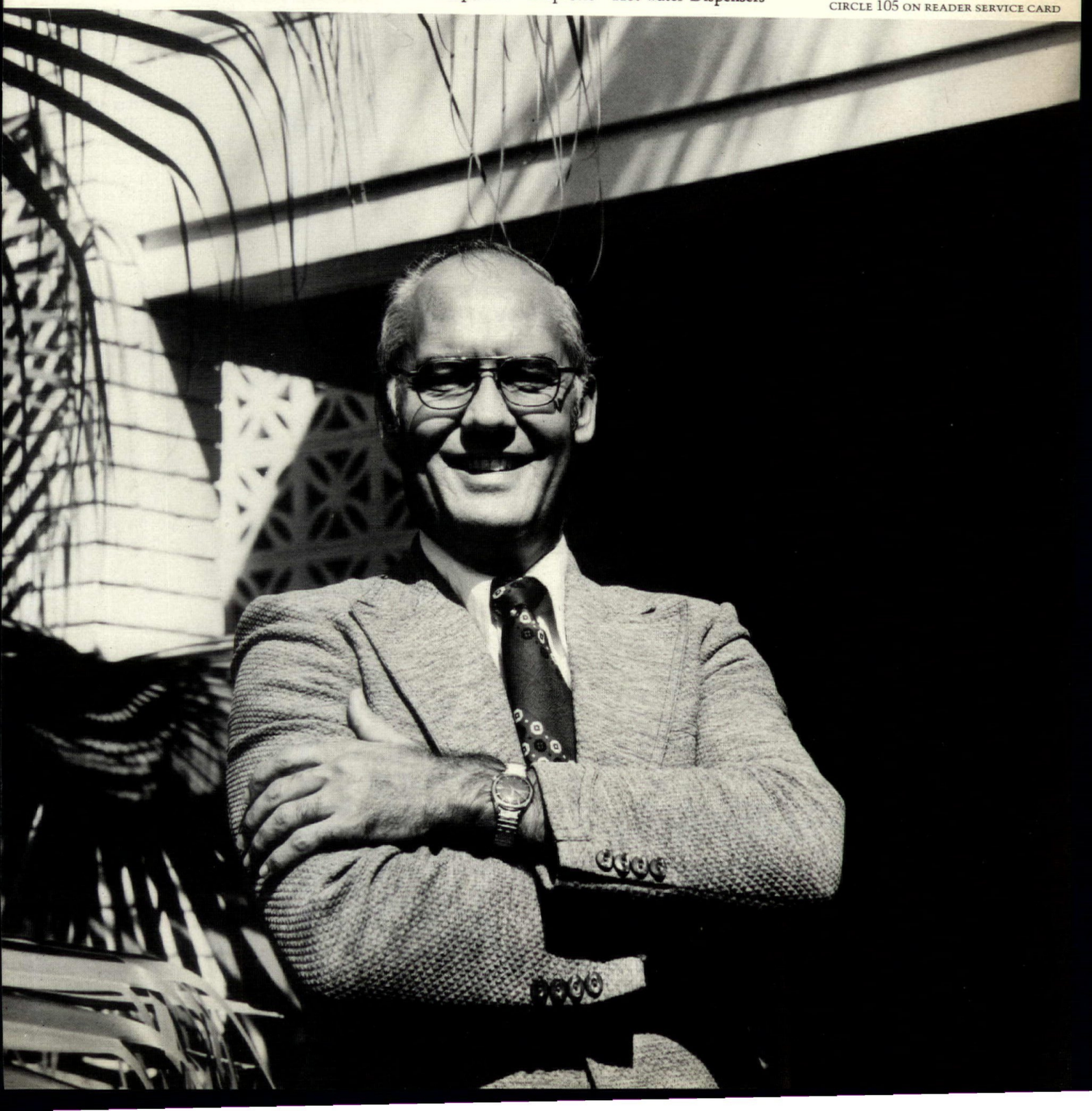
CIRCLE 105 ON READER SERVICE CARD



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CIRCLE 83 ON READER SERVICE CARD

Compact 10 hp tractor can be easily converted to a dozer by attaching a 42", angle dozer blade with wheel-weights and chains. The unit, which can be used for any landscaping or leveling job, has a heavy-duty, 4-speed transmission. Homelite, Port Chester, N.Y. CIRCLE 254 ON READER SERVICE CARD

Cone-shaped cutting tool, "Cone-cut," can drill large holes in thin materials quickly and smoothly. Suitable for use in a hand-held electric drill, the tool, offered in three sizes, is a high-speed steel cone with two flutes and a drill point. Hall, ITE Imperial, Spring House, Pa.
CIRCLE 255 ON READER SERVICE CARD

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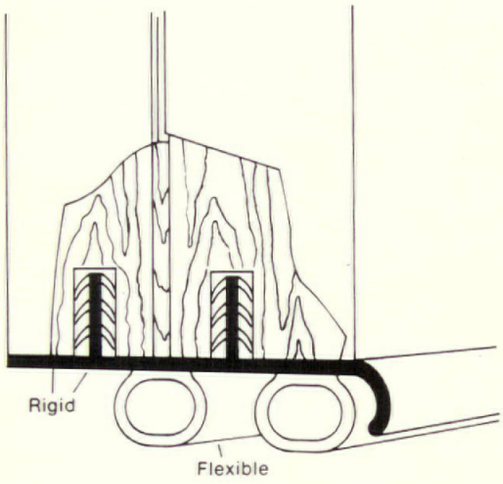

With a custom designed plastic profile door seal. This example shows a DualExtrusion bottom seal with rigid vinyl cap and flexible-vinyl weatherseals. It's not affected by wind, moisture, temperature, sun, or abrasion. It keeps out drafts; won't warp, twist, split, or swell.

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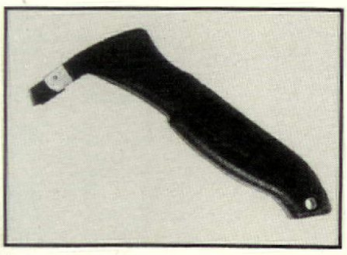
Line-laying machine is capable of burying ⅜" cable to a 10" depth faster than trenching units. The "Model T-220 Dyna-Plow" uses a vibrating blade that knifes through the ground rather than digs. Cable is fed from reels into the narrow slit created by the blade, causing less lawn damage than a trencher. Sperry New Holland, New Holland, Pa. CIRCLE 256 ON READER SERVICE CARD

CIRCLE 106 ON READER SERVICE CARD

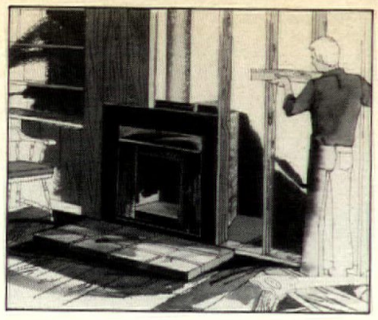
Compact lawn tractor, "Cub cadet," offered in a range of models, is a versatile, outdoor-gardening vehicle. Available with a selection of attachments, such as the seeder/fertilizer shown, unit has flotation tires for less turf wear. International Harvester, Chicago. CIRCLE 257 ON READER SERVICE CARD

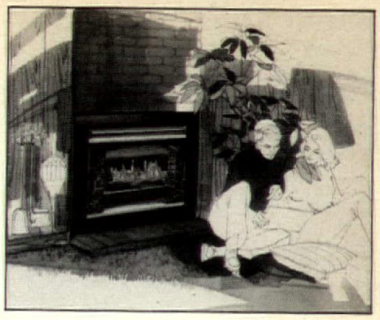
Professional laminate cutter is a lightweight, portable hand tool. Suitable for use in the shop or on-site, the noiseless, non-electric device is clean and easy to use. A contoured handle reduces fatigue. Tool has replaceable blades. Fletcher-Terry, Farmington, Conn.
CIRCLE 258 ON READER SERVICE CARD



Rammer tamper hits with an impact of 1,750 lbs. per blow, 700 times a minute. Powered by a 4.5 hp, 2-cycle engine, unit features a shock-mounted handle and a completely sealed, oil-bath lubrication system. Designed to be used by one man, the tool comes with a standard 11"x12" steel shoe. Stow, Binghamton, N.Y. CIRCLE 259 ON READER SERVICE CARD.

more products on page 109





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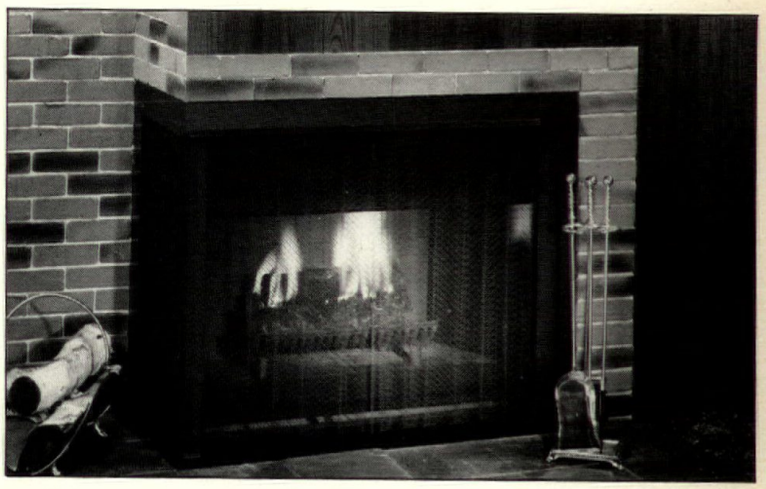

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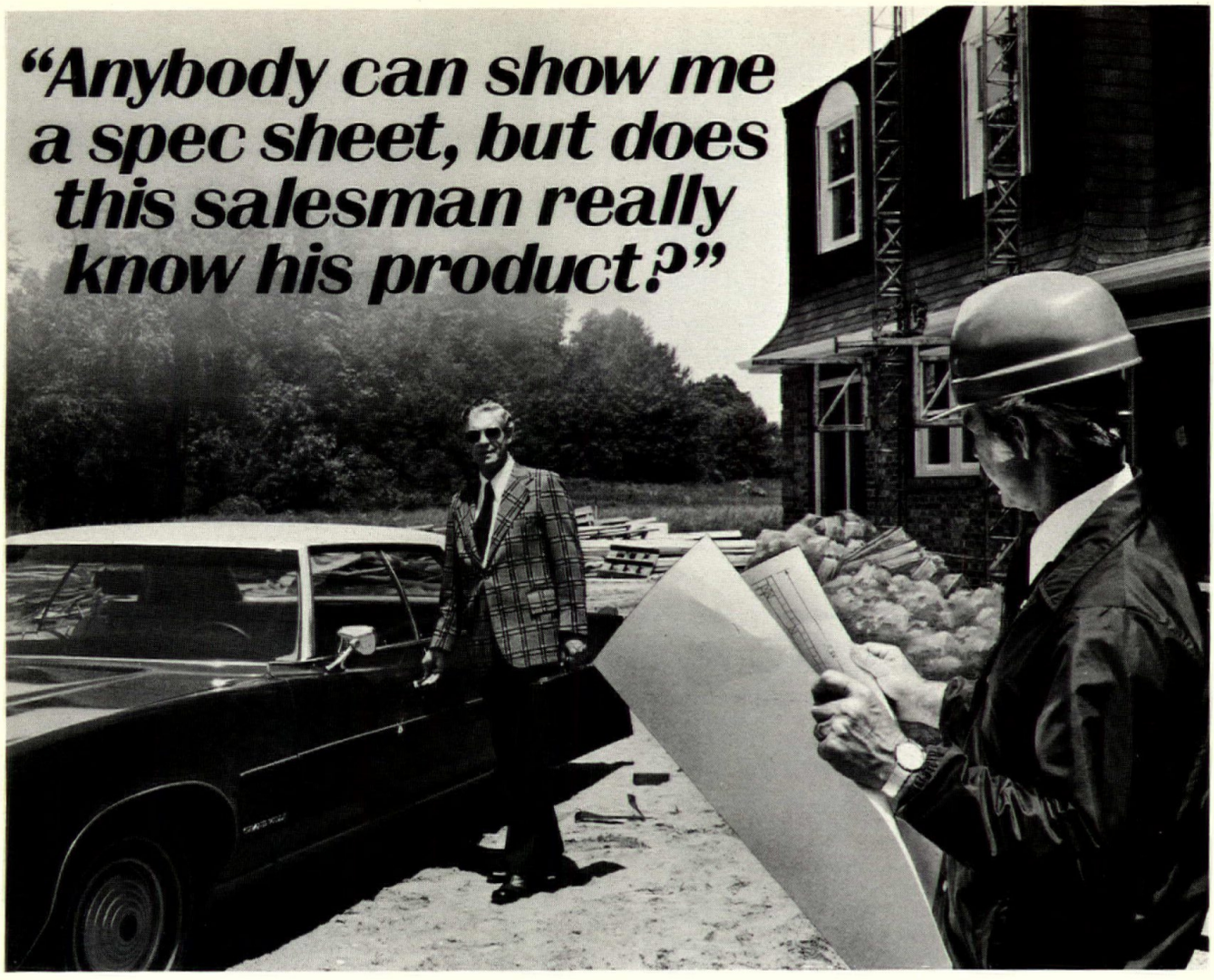

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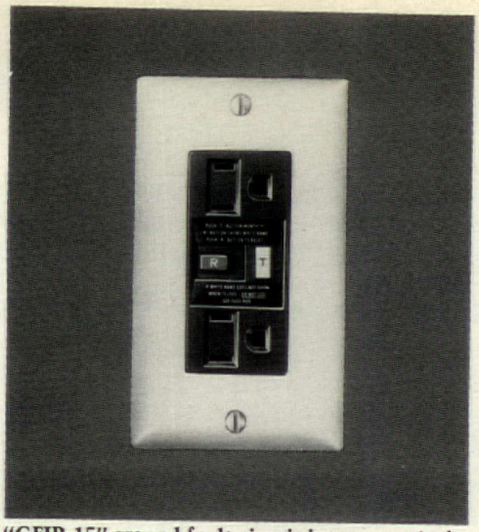
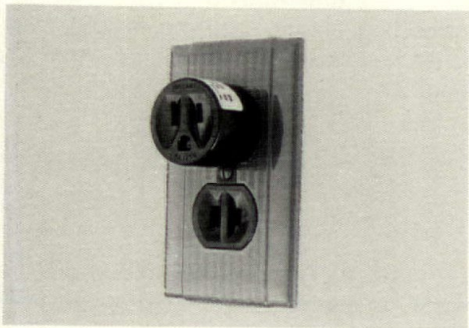
CIRCLE 108 ON READER SERVICE CARD

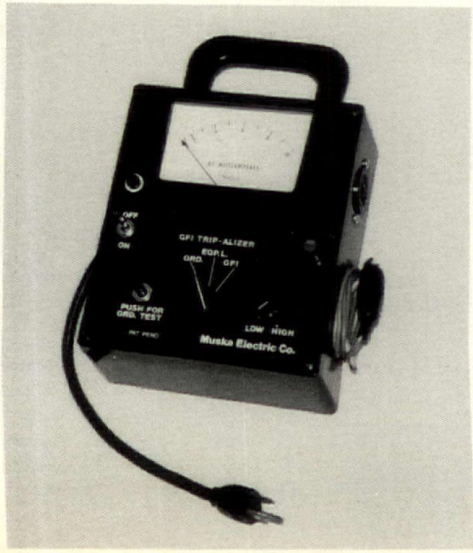


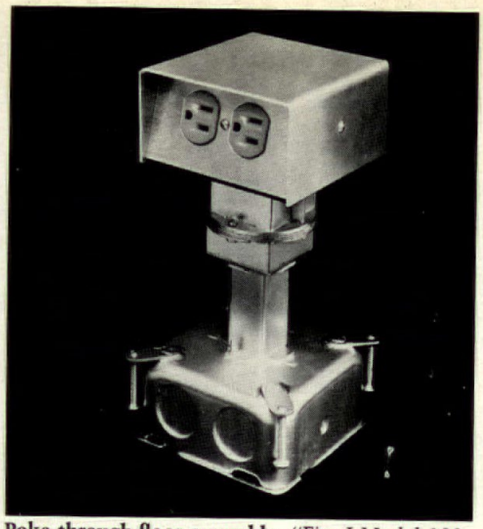
"GFIR-15" ground-fault circuit interrupter is designed for indoor/outdoor and special institutional applications. "Dead-end" receptacle fits most standard single-gang outlets. Solid state circuitry assures reliability, and built-in test circuit permits periodic checks on operation. Model complies with 1975 NEC. Slater, Glen Cove, N.Y. CIRCLE 242 ON READER SERVICE CARD

SURE-GARD™ GFI receptacle *(right)* can protect an entire circuit or selected outlets. Device monitors only what is plugged into it, reducing nuisance tripping. Separate housing of interrupter **(A)** prevents damage during installation. Indicator light **(B)** instantly shows when outlet is tripped, and a moisture-proof coating protects the electronic circuit board **(C)**. Leviton, Little Neck, N.Y. CIRCLE 243 ON READER SERVICE CARD

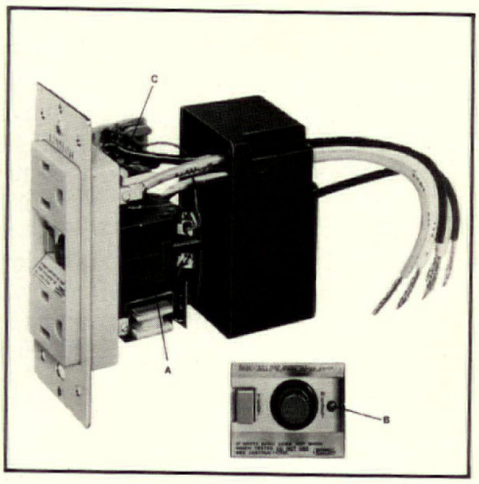
"5273-L" adapter, which converts a receptacle from two-pole, two-wire to two-pole, three-wire, provides automatic grounding during installation. Instead of a wire pigtail, device has a metal eyelet through which the wallplate screw must be placed, forcing grounding. Polarization of the plugs is another safety feature. Bryant, Bridgeport, Conn. CIRCLE 244 ON READER SERVICE CARD







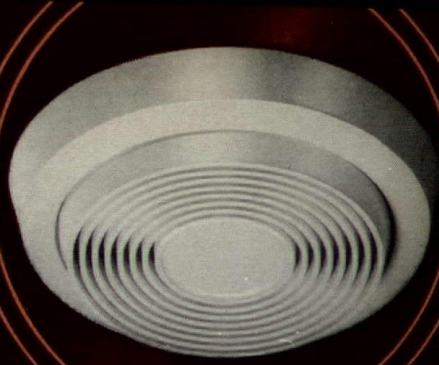
Poke-through floor assembly, "Fire-I Model 300-21," complies with NEC requirements for prevention of fire spread. Palusol™, a fire-rated chemical used in the center coupling, forms a thermal insulating foam barrier at excessive temperatures. Factory-assembled unit fits 2½" to 8" concrete floors. Raceway Components Inc., Linden, N.J. CIRCLE 245 ON READER SERVICE CARD



"F4000" self-leveling floor boxes save installation time and cut the need for grouting. The tiltable top flush-mounts to floor or carpet at levels up to 10° from the horizontal. Wide shoulders conceal box and carpet edges. Three knockout patterns are available. Bell, Chicago, Ill. CIRCLE 246 ON READER SERVICE CARD

Ground-fault circuit indicator, "Tripalizer," *(left)* can be used to test GFI devices, check electrical equipment and test the grounding circuit of power tools. The portable instrument is polyurethane encased and has a carrying handle. Operating instructions are included. Muska Electric Co., St. Paul, Minn. CIRCLE 247 ON READER SERVICE CARD

more products on page 111



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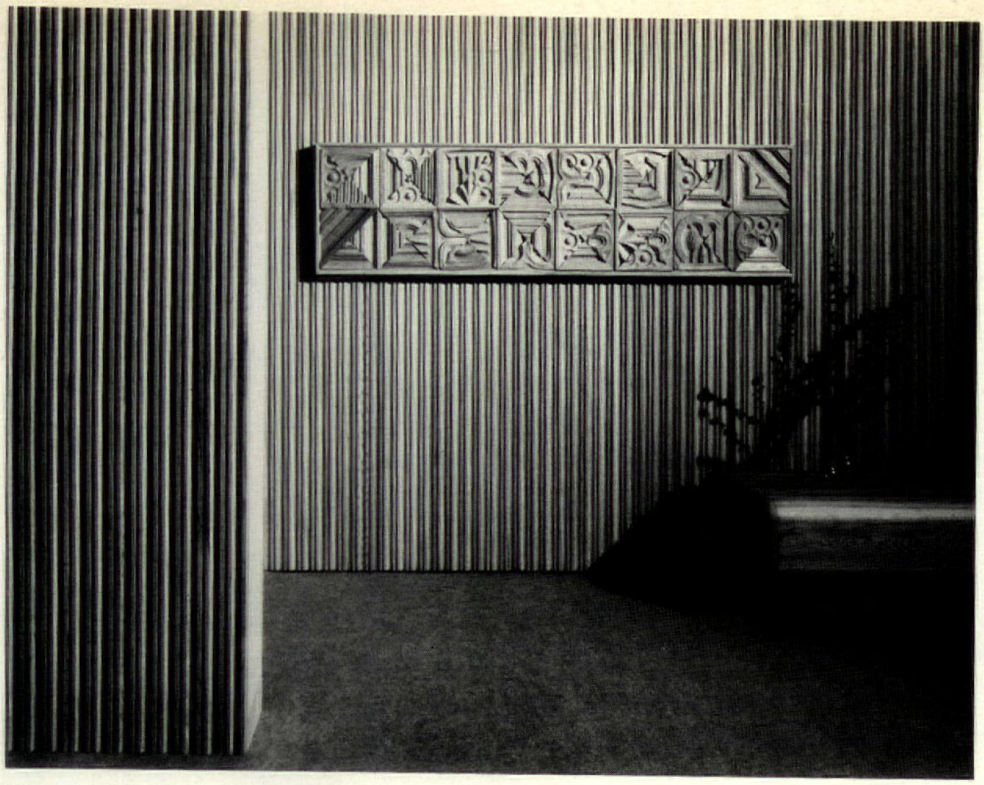
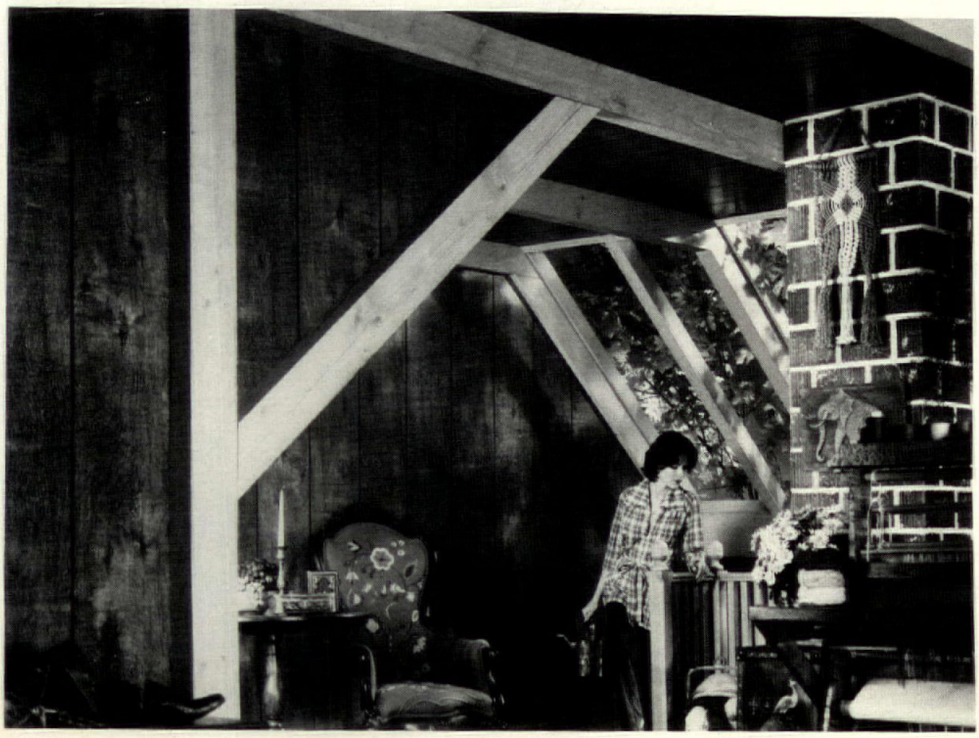


"Sculpturewood" panels provide unlimited design possibilities. Redwood, hardwood or paintable wood panels have precise square, round or beveled grooves cut deeply into the surface. The 2'x8', ¾" wood panels can be assembled in many patterns. Forms & Surfaces, Santa Barbara, Calif. CIRCLE 213 ON READER SERVICE CARD

Easy-to-maintain vinyl wallcovering, "Tiles," used on cabinets as well as walls, adds a Spanish look to the kitchen *(right)*. Pattern is part of the "Main St." collection, which contains plaids, florals, stripes and prints in traditional and contemporary designs. Stauffer, Plainfield, N.J. CIRCLE 214 ON READER SERVICE CARD

Country-look, prefinished paneling "Timberline" pattern is triple printed and embossed on lauan. Shown in a remodeled attic, the economy-priced paneling in a choice of widths comes in rustics and three colors. Random grooving, 12" on center, is offered. Boise Cascade, Portland, Ore. CIRCLE 215 ON READER SERVICE CARD



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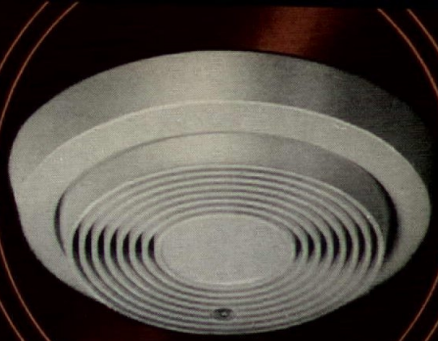

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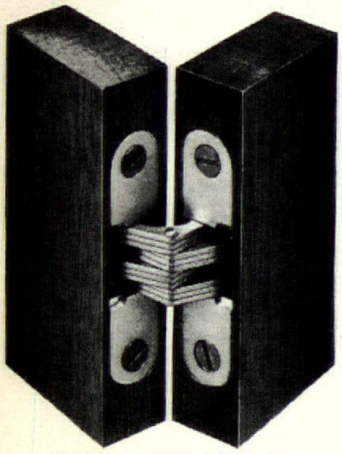

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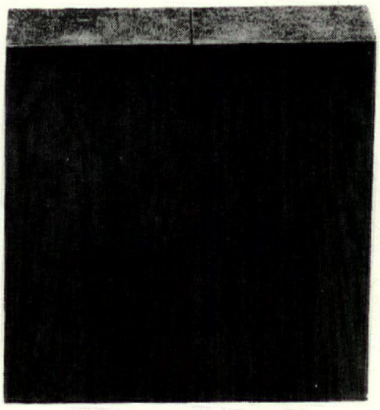

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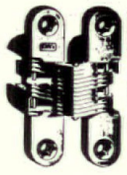

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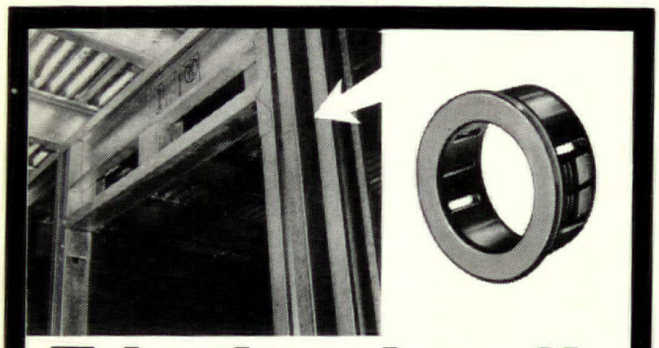

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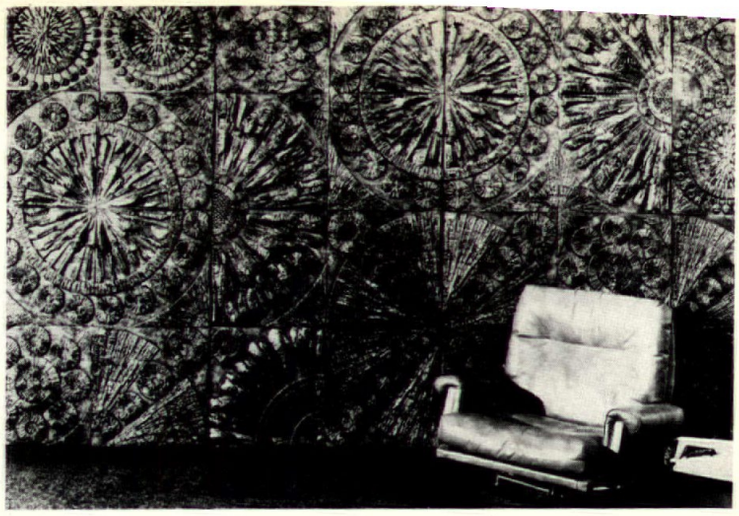
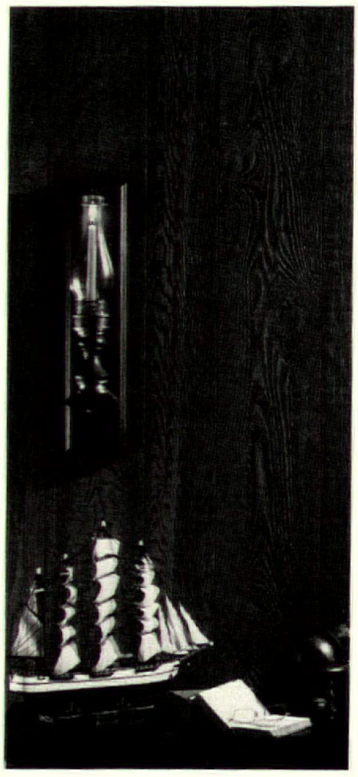


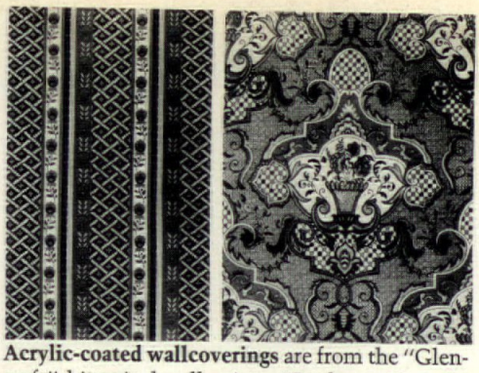
Lightweight, easy-to-handle tiles can be assembled into sculptured-effect murals. Molded of ceramic filler and resin, the non-combustible, rigid tiles are easy to mount. Imported from England, tiles come in a selection of 50 motifs for versatility. Gillespie, Surrey, England.
CIRCLE 223 ON READER SERVICE CARD

Prefinished hardboard paneling, "Plainsman," has the look and feel of rough-hewn cedar. The distinctive graining is deeply embossed. Offered in gray, brown or white, the moderately priced, random-plank paneling will not chip, dent or peel. Masonite, Chicago.
CIRCLE 221 ON READER SERVICE CARD

Wet-look, floral wallcovering, "Chantilly," is shown on accent walls and cabinets in a traditionally-styled bathroom *(below)*. Part of the "Sanitas Volume 75" collection of 185 patterns, the coated-fabric wallcovering is washable and strippable. Formica, Cincinnati, Ohio.
CIRCLE 222 ON READER SERVICE CARD



CIRCLE 112 ON READER SERVICE CARD



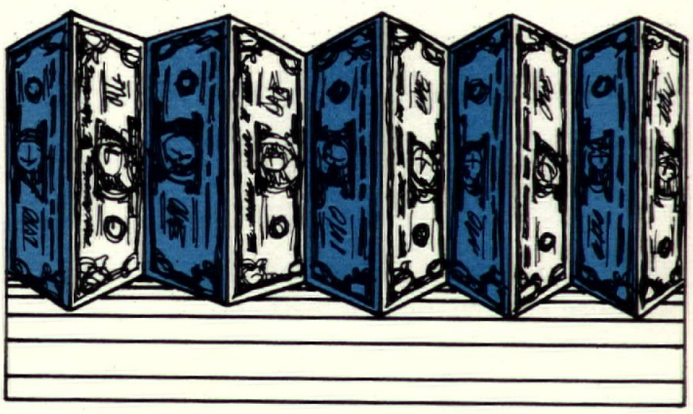
Acrylic-coated wallcoverings are from the "Glencraft" historical collection. "Rockport Stencil" *(above left)* is a mix of stripes and demure flowers. "Alexandria" *(above right)* is stylized, leafy flowers and detailed grillwork. Both come in three colorways. Imperial, Cleveland, Ohio. CIRCLE 218 ON READER SERVICE CARD

Prefinished woodgrain wall paneling, "Candyland," is available in two additional colors. Lemon and blackberry have been added to the line of pastel-on-white printed designs. Four colors were already offered. U.S. Plywood, New York City. CIRCLE 216 ON READER SERVICE CARD

Jungle-inspired wallcovering, "Call of the Wild," and companion animal-pelt pattern, "Wild Stripe," are unusual accents for guest or family rooms. Part of a vinyl-laminated-to-fabric series the wallcoverings are scrubbable, strippable and stain resistant. United DeSoto, Chicago, Ill. CIRCLE 217 ON READER SERVICE CARD

more products on page 114

Need Working Capital? The National Housing Partnership Has It!



The National Housing Partnership has already committed $35 million to participate as equity partners with local builders/developers in 144 low and moderate income housing projects in 32 states.

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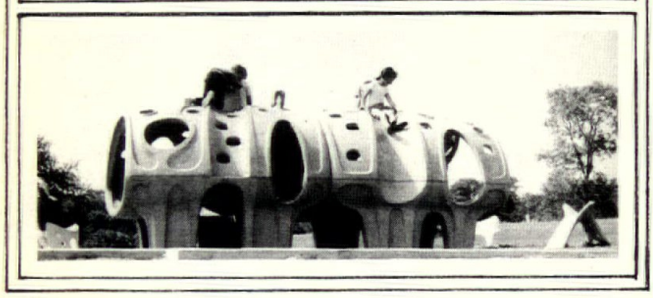

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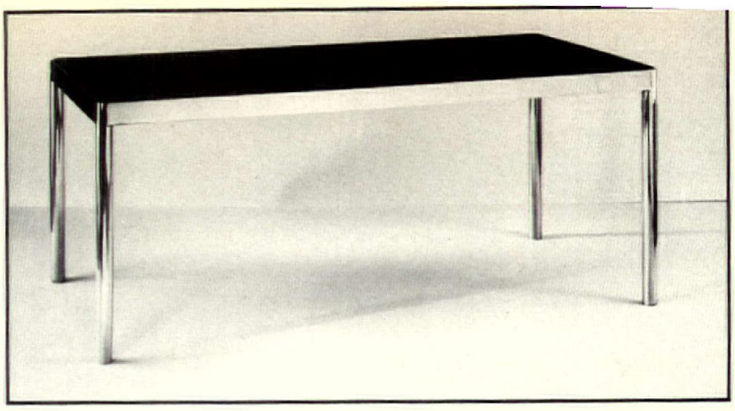
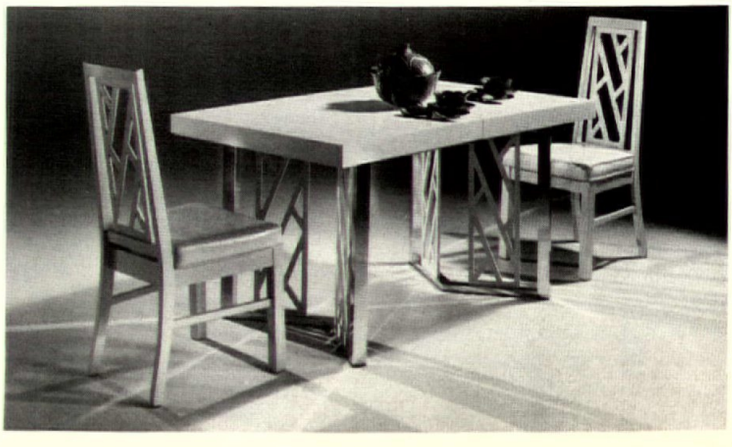


Sleek "ADT" table designed by Kibrel Steele Terry features a classic contemporary look. Round and rectangular elements are joined in the stainless steel frame. The opaque top, which sets within the frame, is available in wood, marble or leather. The table is offered in a variety of sizes. Scope, New York City.
CIRCLE 224 ON READER SERVICE CARD

Cane/chrome armchair *(left)* is designed for luxury dining and lounge areas or commercial reception and conference rooms. A one-piece, laminated plywood panel surrounds natural-cane inserts. Armrests are on chrome-plated steel frames. B. Brody, Chicago.
CIRCLE 225 ON READER SERVICE CARD

"Capri Hide-A-Bed" *(above)* provides extra sleeping space for guests. Sofa, in a natural-tone flamestitch, has a loose pillow-back and tuxedo arms. Right- or left-armed stationary sections are available. Simmons, New York City.
CIRCLE 226 ON READER SERVICE CARD

Contemporary trestle table *(below)* is shown in chrome and white lattice, openwork pattern repeated in the end chairs. Table expands to accommodate guests, closes for intimate dining. Armchairs are also available. Schoolfield, Mullins, S.C.
CIRCLE 227 ON READER SERVICE CARD



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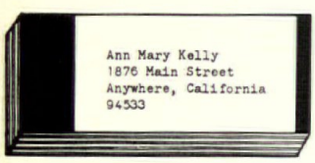

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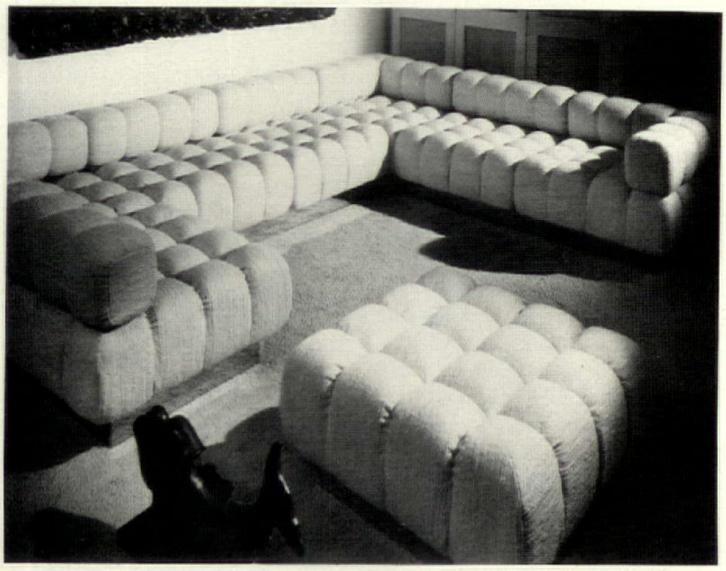
Tastefully simple dining group, "Mandalay," *(above)* complements a contemporary interior. A mahogany-bordered cane insert in the glass table top is repeated on the seats and backs of director's chairs. Set has chrome legs and frame. Chromcraft, Senatobia, Miss.
CIRCLE 228 ON READER SERVICE CARD

Modular seating system, "Lambo," consists of a straight unit and a corner piece which combine to form any number of configurations. Filling is foam and down. Fabrics, leathers, suedes and stretch velours can be used as upholstery. Stendig, New York City.
CIRCLE 229 ON READER SERVICE CARD



Molded-foam seating system, "Deep Tuft," consists of corner and center armless units and an ottoman. Each has its own base for flexible arrangement. Hide-like, urethane-foam surface is long-wearing and flame-retardant. Harvey Probber, New York City. CIRCLE 230 ON READER SERVICE CARD

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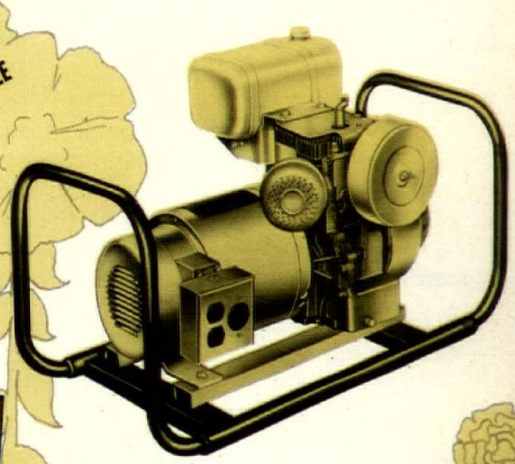

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LITERATURE

Playground equipment; play-area design

Wooden forts, basketball goals and innovative playground design are among subjects discussed in the literature below. Some of the catalogs give prices, and most of the equipment is age-graded.

Wooden playground equipment is discussed in a 39-page product guide. Fort-like configurations, stepping columns and climbers are described and shown. The booklet includes scale drawings for use in tracings, and playground planning suggestions. It also gives product specs, discusses other company services and describes accessory equipment. Timberforms, Portland, Ore.
CIRCLE 301 ON READER SERVICE CARD

Sports and play equipment catalog gives prices, dimensions and weights. Basketball goals, field-sport backstops and goals and playground equipment for elementary and pre-school ages are shown in black and white. Gymnasium equipment is also cataloged. SportsPlay, St. Louis, Mo.
CIRCLE 302 ON READER SERVICE CARD

Playground equipment is cataloged and prices given in a 24-page full-color booklet. Different types of climbing equipment are described and age-graded. The booklet also suggests different groupings of equipment for different age ranges, says how many children groupings will accommodate, and shows groupings in photographs. PCA, Long Island City, N.Y.
CIRCLE 303 ON READER SERVICE CARD

An offbeat approach. Unstructured playgrounds—where children are encouraged to build their own environment and make up games with simple tools and raw materials—are a far better bet than the conventional kind. So says author Nancy Rudolph in *Workyards,* a new 66-page book. They not only cost less, she explains, but children enjoy them more and they make for greater community involvement. All you need is open space, a fence, simple tools, such materials as left-over lumber, old tires or, at best, an old truck body, and an adult supervisor. The book is aimed at citizens groups, but it should also interest builders and developers. It includes design ideas, cost information and case studies. *Workyards* is published by Teachers College Press, 1234 Amsterdam Ave., New York, N.Y. and costs $5.95.

Southern pine lumber products and their typical uses are covered in a revised edition of the *Southern Pine Use Guide.* Tables list joist sizes for different loads, and other information. It costs 25¢ from SFPA, Box 52468, New Orleans, La.

A new parking system designed to make more efficient use of high-cost land is described in an Urban Land Institute publication. The method, which takes advantage of recent trends towards smaller autos, explains how to increase the number of parking spaces in a lot by 10% to 25%. In the same lot where 45- or 60-degree angle spaces are provided for standard cars, narrower 90-degree angle spaces—and more of them—can be offered to compacts only.

Urban land price inflation is analyzed in the same publication. A seven-city survey showed 44% to 300% increases in the price of developable land from 1970-1974. The author identifies population growth and land speculation as the cause, and believes a more positive government role in the land market to be the cure. *Urban Land,* Sept. 1974, is available from U.L.I., 1200 18th St. N.W., Washington, D.C. for $2.00 plus 10% handling.

Selecting the proper water heater for commercial and industrial applications is the subject of a 24-page booklet. Introductory text explaining the basics of selection is accompanied by tables giving the capacities of heaters. Detailed guides for calculating hot water requirements of country clubs, office buildings and institutions follow. Dimensional drawings and sample specifications are included. A separate selection guide for apartment buildings is also available.
CIRCLE 304 ON READER SERVICE CARD

Sill-height convection heaters are presented in 16 pages. A method of determining room heating requirements is outlined, followed by tables detailing the capacities and applications of both single and multiple heaters. The four-color brochure also includes dimensional drawings and internal wiring diagrams. Limitations in the use and installation of heaters are described. Emerson-Chromalox, St. Louis, Mo.
CIRCLE 305 ON READER SERVICE CARD

Hydronic heating with baseboard radiation is the subject of a four-page illustrated brochure. Complete system, including boilers, is described. The brief text is complemented by diagrams and photographs. Ratings and specifications are listed. Raypak, Westlake Village, Calif.
CIRCLE 306 ON READER SERVICE CARD

Home appliance catalog describes kitchen, laundry and air conditioning equipment. Photographs, diagrams and charts fill 28 pages. Standard and optional features for both free-standing and built-in models are listed. Ratings and specifications are included. Also discussed is a design service to assist builders in planning kitchens and laundries. General Electric, Louisville, Ky.
CIRCLE 307 ON READER SERVICE CARD

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Pre-filed catalogs of the manufacturers listed above are available in the Sweet's Catalog File as follows:

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

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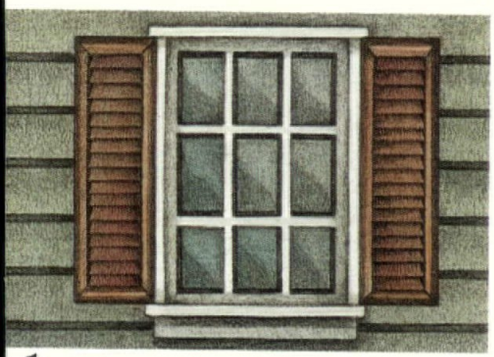
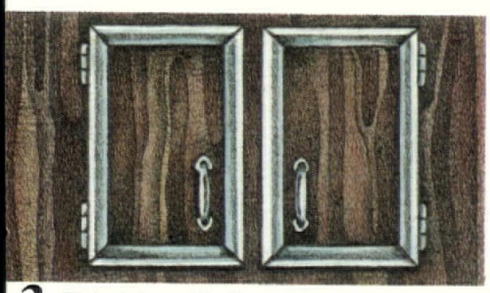
New ways to trim and frame.

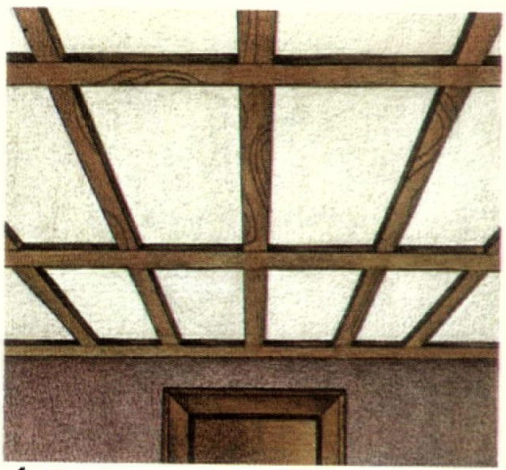


1. These shutters, with an inner frame made of a rigid cellular vinyl shape, snap onto metal channels or clips. The strip is made from Geon® vinyl. Won't warp, rot, swell or splinter.



2. Rigid cellular vinyl frames doors in white. And other colors. Weight is reduced, strength and rigidity are maintained. Fabrication is easy: just cut and fit. The panels slip into place.

3. Around this game board is a cellular vinyl molding that's hollow, can double as an electrical raceway.



4. The metal part of this ceiling strip faces upward, out of view. The cellular vinyl framing strip adds character to ceilings. Resists moisture, rotting, attack by insects. Requires very little maintenance. It's made with Geon vinyl.

For more information, ask B.F.Goodrich Chemical Company, Dept. H-34, 6100 Oak Tree Boulevard, Cleveland, Ohio 44131.

B.F.Goodrich **B.F.Goodrich Chemical Company**

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Put on New Olympic Overcoat. It's guaranteed better than house paint!

Olympic Overcoat® is a unique 100% acrylic latex exterior coating specifically formulated to provide a durable, flat, one-coat finish on challenging surfaces such as hardboard and smooth, painted material. Five years of field testing have time and again shown Overcoat to be superior to other products tested for application and performance. In commercial applications Overcoat has delivered as much as twice the coverage per gallon as conventional latex products. Results are so outstanding that Overcoat is backed by two remarkable money-back guarantees.

Overcoat is available in most of the popular Olympic Stain solid colors. To finish unprimed hardboard, the matching color in Olympic Solid Color oil-base stain should be applied before applying Overcoat. Hardboard and Overcoat. Think of them together. For more information on Overcoat and the entire Olympic line, consult 1975 Sweet's Catalog, or contact Olympic Stain.

Application and Appearance Guarantee: Overcoat's quality, durability, protection and ease of application are so outstanding, we would like you to use it. While the first gallon of Overcoat is being applied (at the recommended rate), if you're not convinced Overcoat is better than house paint, the remainder of that gallon plus any other unopened gallons purchased can be returned to your Olympic dealer for a full refund. Receipt required.

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Olympic Stain. A division of COMERCO, INC.
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