

# Grim Construction Picture Reflected By Bell Housing

By DOUG FRERICHS  
Gazette Reporter

"Unfortunately, like every other builder in the Valley, our production is somewhat down," Tom Rittenhouse said as he stopped his car in front of the 100,000 square-foot building that last year produced enough "bath cores" for 21 new houses a day.

Down the way, a sign by the Santa Fe Railroad tracks reads "Lizard Acres" — one-time site of a feedlot operation that used to scent the desert breeze en route to Sun City with proof of fattening cattle.

But the feedlot is gone — long since replaced by acres of asphalt, industrial buildings and endless stacks of lumber waiting to be converted into housing components for Sun City West.

The site is that of Bell Housing Components, a subsidiary of Del E. Webb Development Co. and one of the largest plants of its kind in the nation — a fact you might surmise from the sheer size of the facility. But from the lack of activity you might conclude the place is all but dead.

**NOR IS THE** quietude that haunts the 80-acre yard the result of the operation's automated nature, but a silence testifying to the difficulties faced by Webb, the housing industry and nation at large.

Difficulties that Rittenhouse, plant general manager, discussed with frankness as he gestured to vacant loading platforms along the railspur.

"Last year on a single-shift, we were unloading 15 to 20 railcars a day, had 550 men on the yard. Now we're down to close to 100." He added that even at peak the "core" division could maintain only a two to five day inventory of "modular wet cores."

He used the term instead of "prefab bathrooms" on grounds that

"prefab" carries connotations of cheaply built structures such as the

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quonset huts thrown-up during World War II.

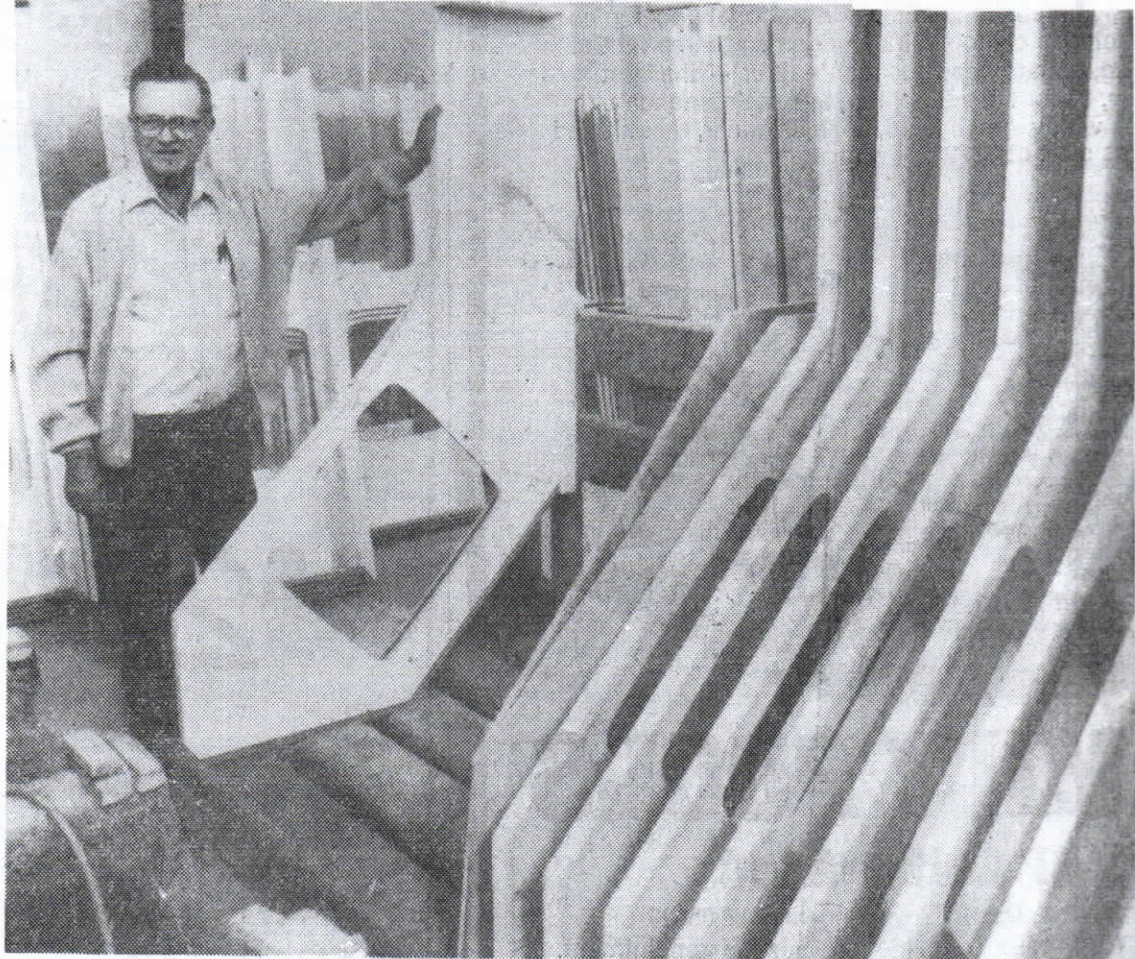
**TO THE** contrary, Rittenhouse said, nothing built by Bell Housing is cheap or flimsy, despite efficiency of

component manufacturing systems that enable Webb to save 5 to 10 percent on core materials and up to 50 percent on labor costs.

Inside Building 11, he pointed to where pre-cut studs, floor and ceiling plates are assembled on large pallets, similar to rolling stage platforms.

Hammer blows echoed as a handful of workmen moved along a

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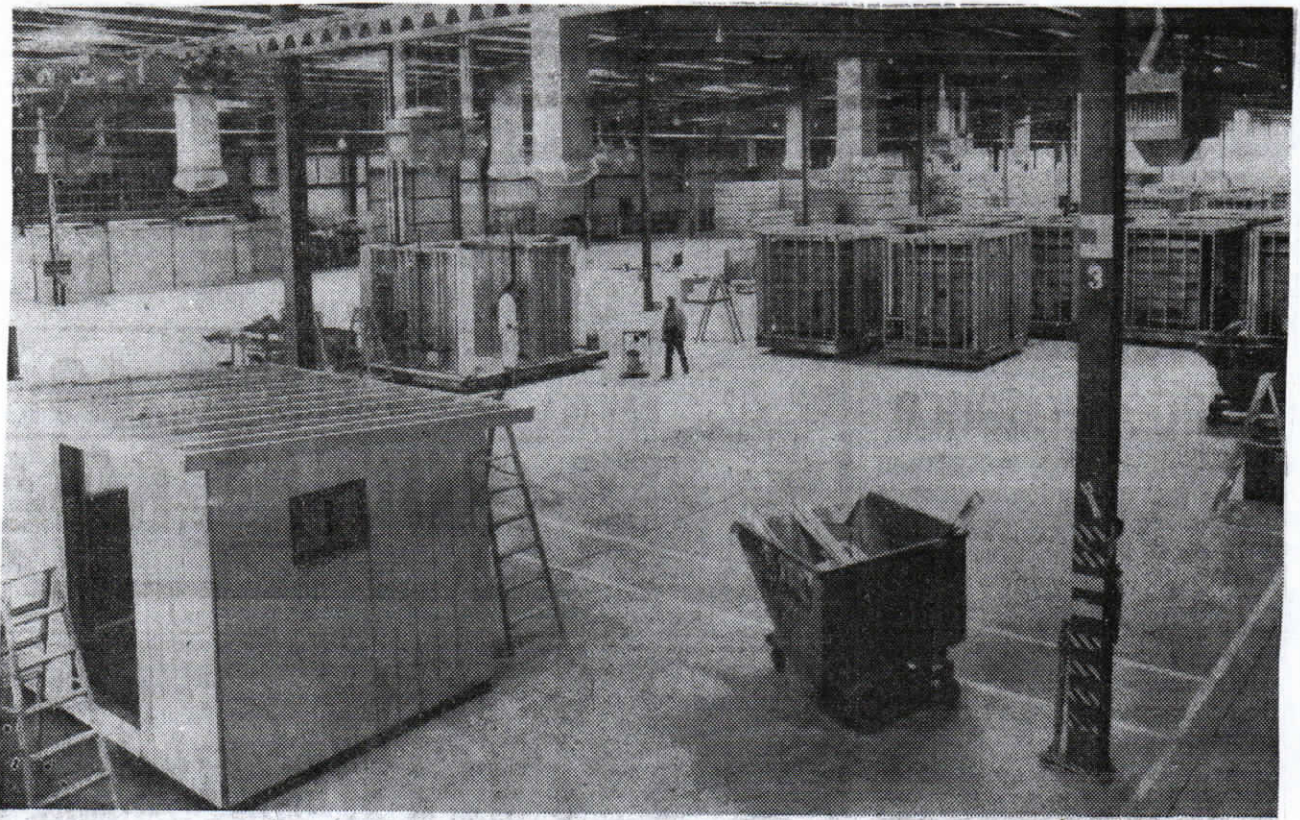


Tom Rittenhouse, general plant manager of Bell Housing Components, stands near some of the

materials used by the company for... The lagging economy has forced pla

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This is the interior of the massive Bell Housing Assembly Lines plant in Sun City West.

Gazette Staff Photos by Ed Gray



Tracy Poston, 24, works on a wall panel assembly line at the plant.



## ● BUILDING SLOWS DOWN IN WEST VALLEY

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phalanx of cores — giant building blocks stacked within a structure as long as two football fields.

"Sheet-rock is pre-cut. Special sub-assemblies are added with the idea of building a given wall panel, then applying the sheet-rock. None of the equipment is very sophisticated, but it's automated so everything is predetermined and precise," he said.

**HE EXPLAINED** the plant was founded in 1974 to produce only bath cores, but proved so successful that additional facilities were necessary for manufacturing prefab walls, roof-trusses and countertops — major components of a conventional "frame-type" house.

Not unique, the system has been used in the mobile home industry for many years. He added that the major difference is that Bell Housing products must meet specific building codes for houses on fixed foundations.

**COMPLETED** products have to be trucked to the job-site where components are lifted into place by cranes.

"Strength and quality control are spin-offs. You've got to have stronger components than on-site framing. This means high-grade materials, straight studs and everything plumb and square."

Meantime, prefabricating does not limit architectural designs.

"And the fact is the industry tends to be at the mercy of architectural divisions. Here, for example, we've got about 35 to 40 models since we're still building old series designs."

He claimed the industry could be more "practical and efficient" if architects would pay more heed to pre-packaging.

Elsewhere in the plant, automated equipment, including pneumatic nailers, gantries and huge rolling jigs, enabled a few dozen men to turn out roof-trusses and wall panels with an efficiency reminiscent of the story about the rail-laying machine that defeated John Henry.

Pit a thousand carpenters against Bell Housing, and like big John they'd hammer themselves to death trying to keep up.

It's an efficiency that lends irony to Rittenhouse's statement that the plant was founded partly because of an increasing lack of skilled labor.

"You can't get good carpenters anymore which is a sign of the times — not just in construction, but in everything there's a shortage of overall skills." He asserted that failure to develop skills as one of the most serious problems facing the nation today.

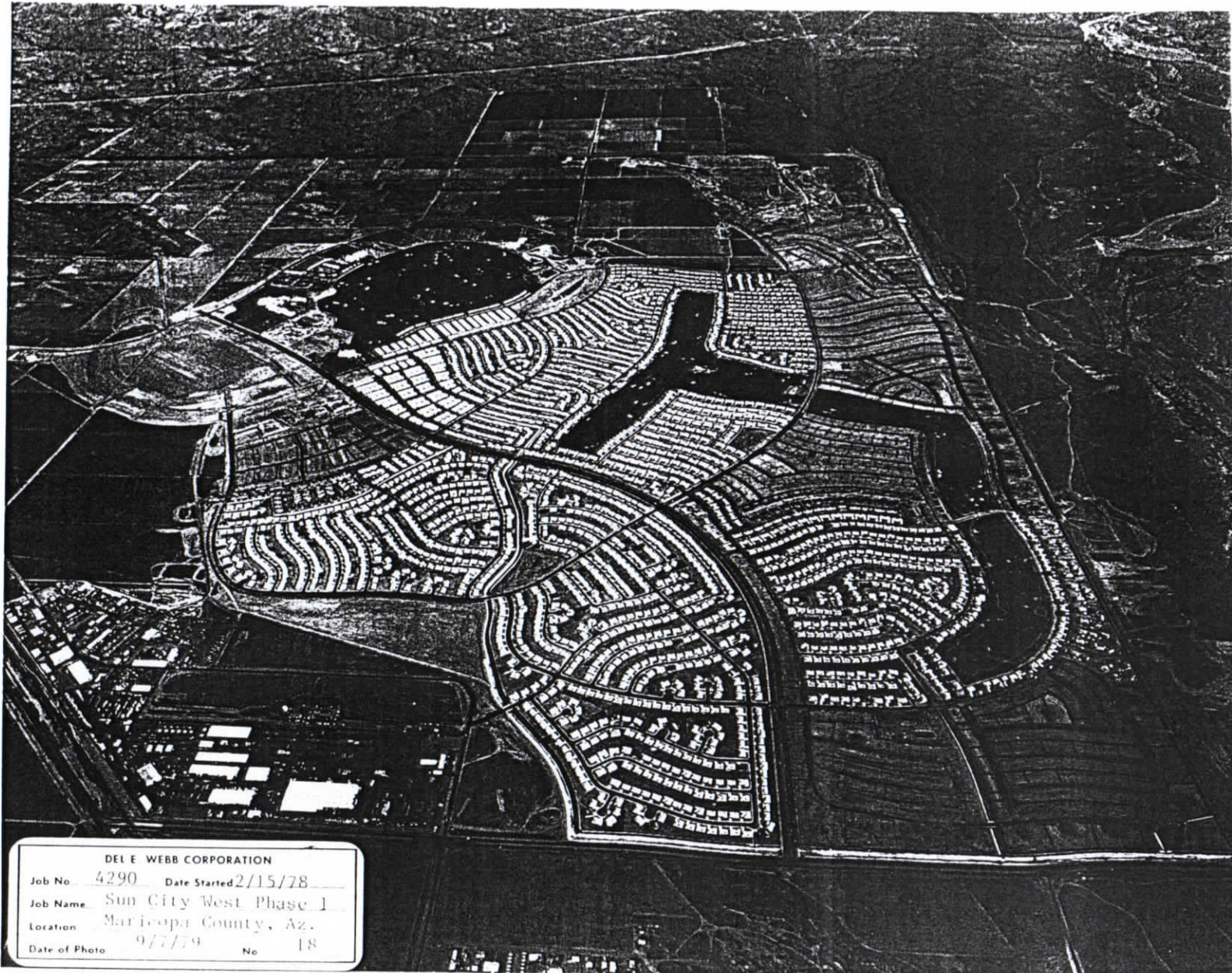
Yet, he admitted that the automated nature of the plant precludes need for many skilled employees — a paradox that may explain in part why Rittenhouse believes his busi-

ness will enjoy a bright future despite the financial problems presently facing the construction industry at large.

"The future of component manufacturing will be evolutionary. In remote areas where its expensive to bring in large crews, components make a lot of sense. There's possibility of expanding into other markets. To date, we haven't gone nearly as far in this industry as I think is possible to do."



SCW



DEL E WEBB CORPORATION  
Job No. 4290 Date Started 2/15/78  
Job Name Sun City West Phase I  
Location Maricopa County, Az.  
Date of Photo 9/7/79 No 18



# Components speed SCW construction

Thousands of products Americans take for granted and use every day are made in a factory; that they are mass-produced is an accepted fact.

Homes, too, can be manufactured in a factory—and it's been happening in Sun City and Sun City West for almost five years, at least partially.

Bathrooms, exterior walls, interior walls and roof trusses for new homes in Sun City and Sun City West are made by Bell Housing Components, trucked to the site and installed.

It's not a new concept. The first manufactured home in America was built in England and shipped to Cape Ann, Mass., where it was assembled. The year was 1624.

Last year, more than 300,000 American families purchased a new manufactured home (excluding mobile homes and travel trailers).

In Sun City West, the use of components manufactured at Bell Housing enables the Del E. Webb Development Co. to build homes faster and more economically than was possible using traditional methods.

In fact, teamwork between the more than 500 Bell employees and about 1,000 Webb Company field personnel results in the completion of as many as 21 homes a day at present in this resort-retirement community.

Tom Rittenhouse, Bell Housing Components general manager, said attention to detail—in preliminary design, development of manufacturing and handling procedures, and in procurement of materials—is the key.

Materials used at Bell equal or exceed those used in the best of residential construction projects," he said. "The quality and workmanship found in our products exceed that found in many custom-built homes."

Each component assembly and sub-assembly produced at Bell Housing's West Bell Road and Grand Avenue plant is pre-engineered to support and complement every other assembly; every structural member is pre-cut on precisely calibrated machines.

Quality control is an important factor at Bell Housing Components, Rittenhouse said. He explained that with men and women working in the plant's controlled environment, protected from inclement weather, greater attention to detail is possible; in addition, there is constant guidance and supervision by foremen and quality-control supervisors.

"Each process must be accurately completed for the new crew to do its job. It just makes common sense that better control can be attained where proper materials flow past pre-determined work stations than is possible when various craftsmen are moving from one building site to another to perform assigned tasks," he said.

The manufacturing process in any industry is designed to get maximum productivity from labor and equipment, Rittenhouse said. At Bell, the resulting economies are passed on to the Webb-built homes, he added.

With Sun City West now welcoming its pioneer residents, Bell's volume has been on the rise. Rittenhouse reported that its daily production includes 40 bathrooms, 21 utility walls and enough wall panels and roof trusses for 21 homes.

Another economic benefit of the component process is reduction of material waste and loss. Pre-planned assemblies, combined with precision cutting and pre-packaging, makes for maximum use of material, Rittenhouse said—and pre-cut materials also are less susceptible to theft.

"The National Association of Home Manufacturers, with more than 100 members throughout the United States, represents a rapidly expanding industry," Rittenhouse said. "The manufactured concept, including everything from simple components to complete modules, is here to stay. Speed of production, the inherent economic benefits, and, above all, the quality of the finished product cannot be denied."

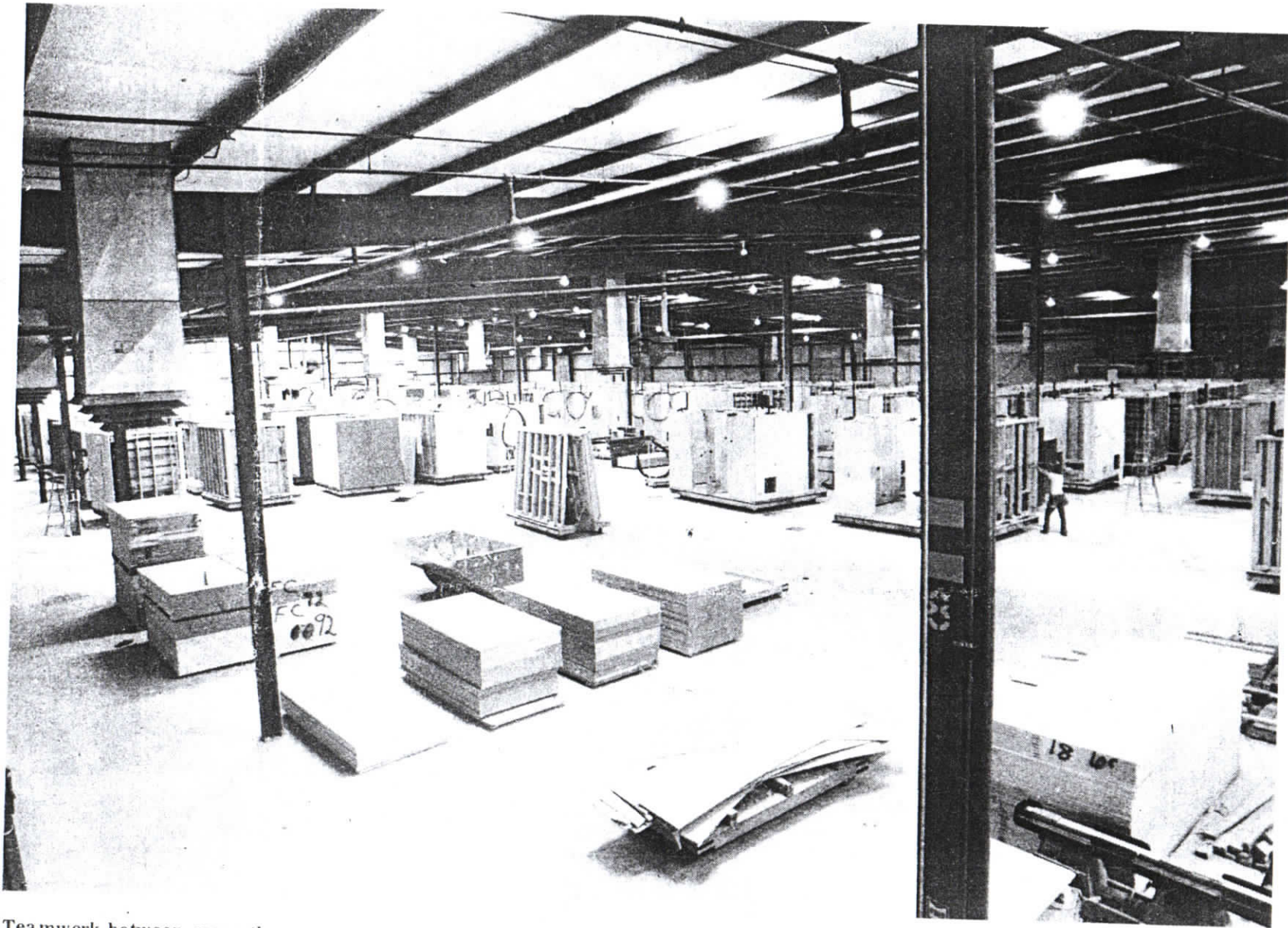
Webb Development Co. president John Meeker agrees. "Our interest is to hold the line on home prices while continuing to retain the reputation of being a quality builder," he said. "Bell Housing Components is helping us achieve these aims."

SCW

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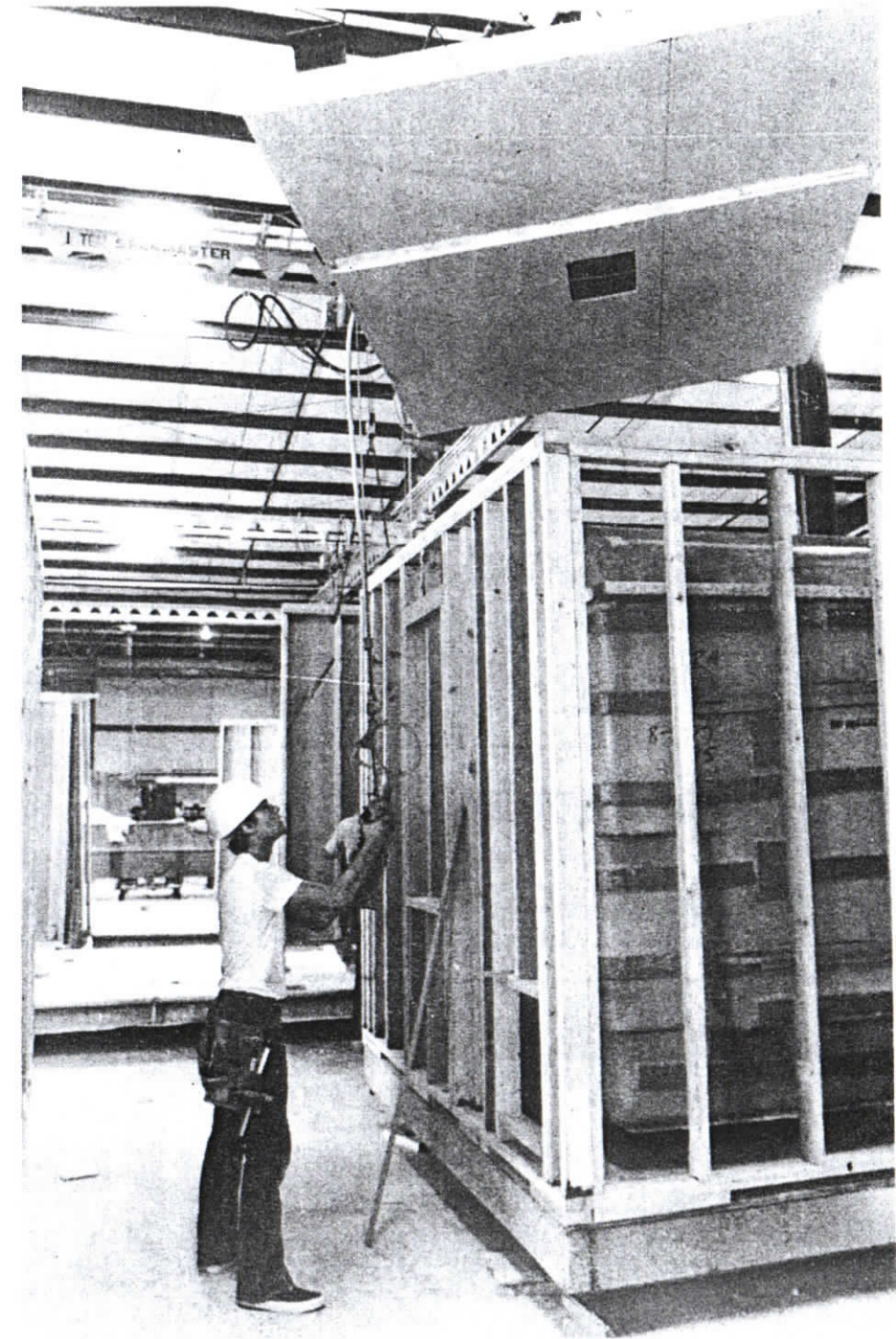
January 16, 1979





Teamwork between more than 500 Bell Housing Components employees and about 1,000 Del E. Webb Development Co. field per-

sonnel results in the completion of as many as 21 homes a day in Sun City West.

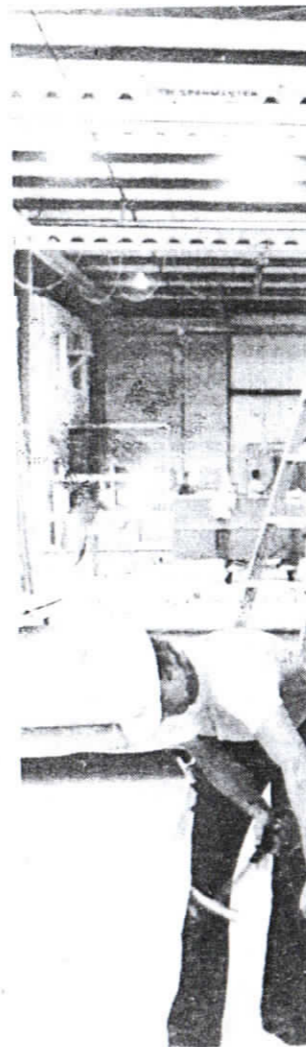


Pre-assembled ceiling panels are lowered and fitted into the space formed by the walls, insuring a rigid and uniformly-sized component.

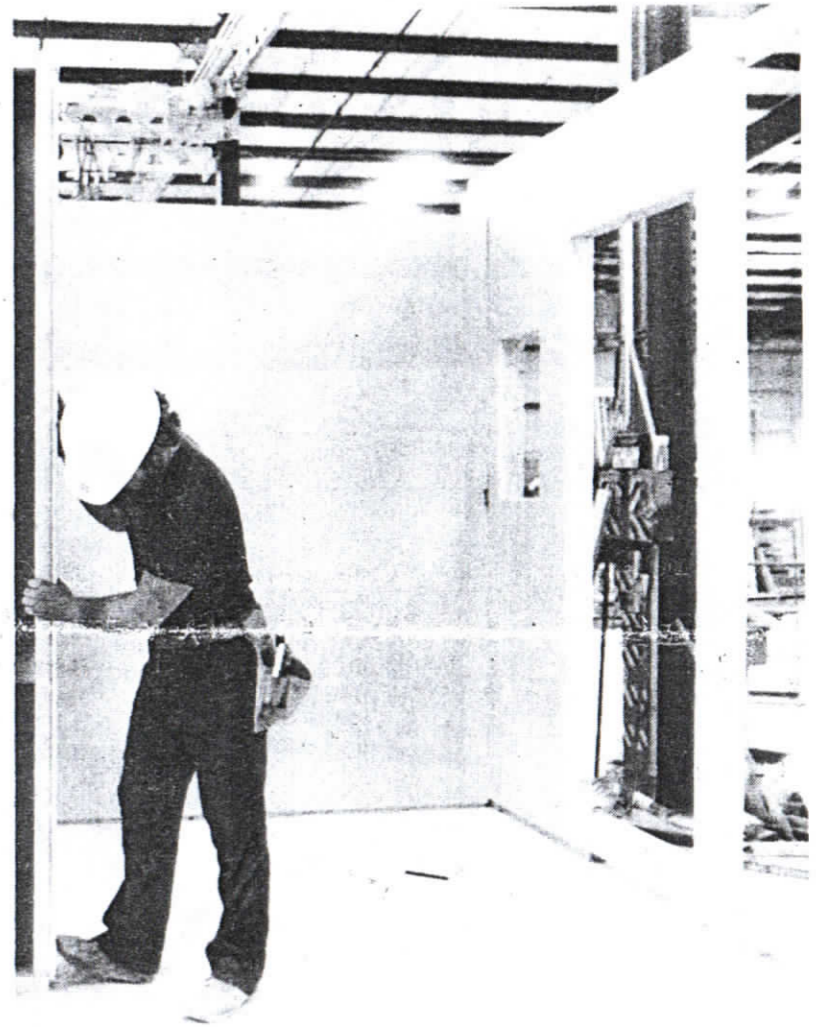




Wall panel assemblies are constructed using pre-cut members and pre-determined designs. Nailing is done with pneumatic guns.

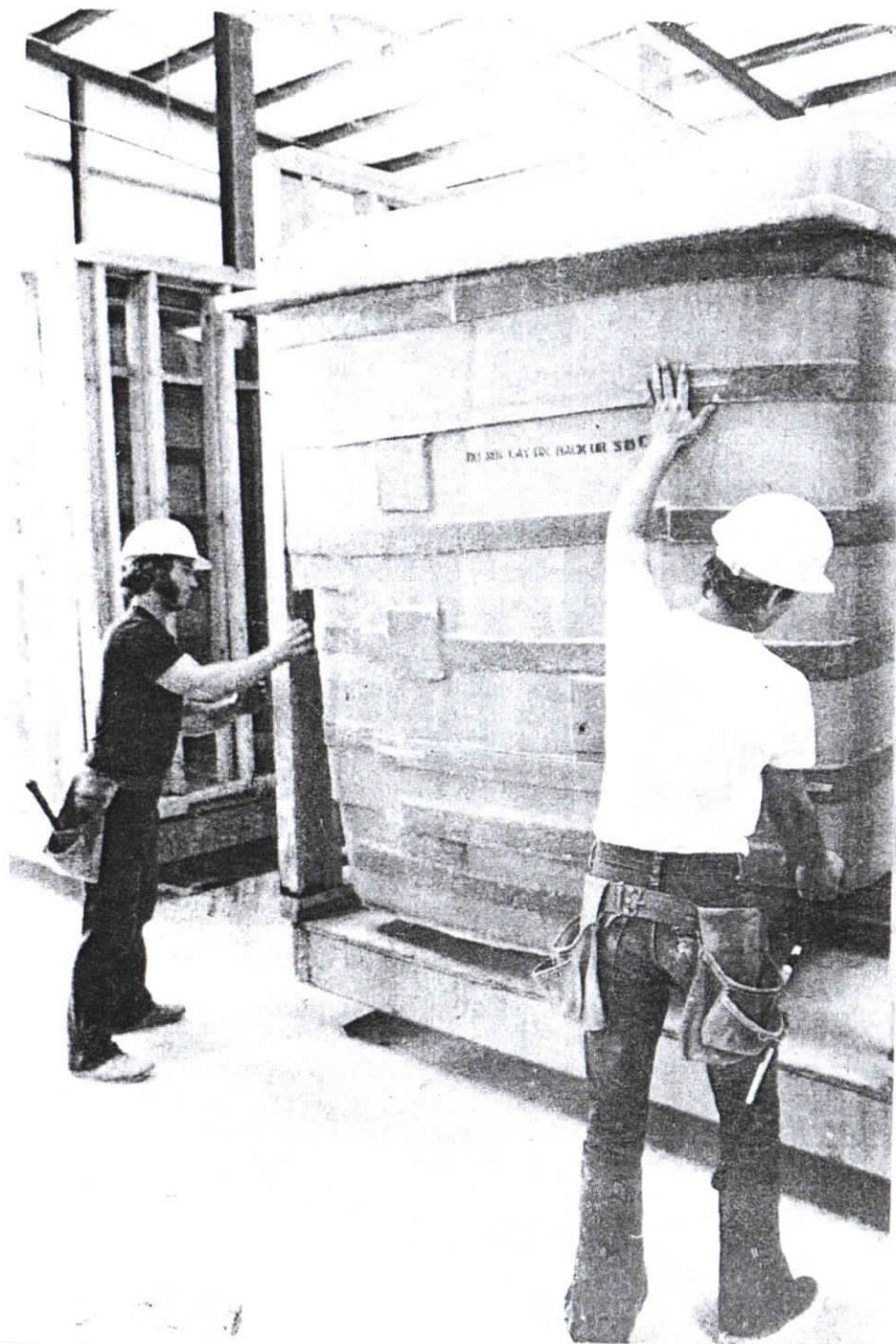


Panels are picked up, positioned on a movable platform and fastened to form a given module. Quality control from work station to

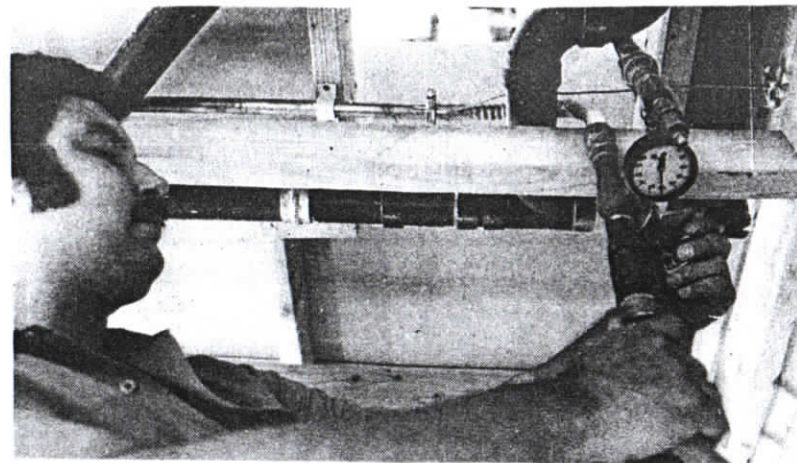


work station maintains precision assembly, says Bell Housing Components general manager Tom Rittenhouse.





Fiberglass tub and shower stall unit is put in and bolted into place. The tub is a foot longer and 10 inches wider than standard and the stall features a fiberglass dome ceiling that is completely resistant to steam.



Plumbing and electrical assemblies are installed. The system is tested with water pressure and the electrical system completely checked for defects.



Framing members used in the construction of Bell Housing Components products are individually checked to insure acceptable quality.