A Steel-Belted House

When Bob and Paula Burrill moved to New Mexico in the fall of 1992, their first priority was to buy a house. They chose a new three-bedroom, two-bath home under construction in a pleasant subdivision in the sand hills of Corrales, near Albuquerque. They liked the neighborhood, the floor plan, and the traditional adobe style. They even liked the tires.

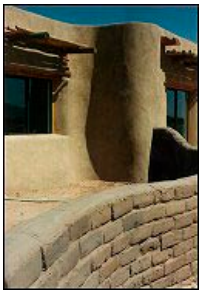
Yes, tires. 1,800 steel-belted radials stacked up and filled with earth to make the 30-inch-thick exterior walls of the 2,700 square foot building. The house was designed by Ed Paschich of Corrales, who has been building adobe homes in the Southwest since 1976. He says that tires, which he gets for free from a local retreading company, are perfect forms for walls of compacted earth. Stacked on top of one another, filled with earth (each tire holds about 300 pounds) and tied together with rebar, they make an extremely solid, stable wall.

The walls of the Burrill's house were built with larger tires (32" in diameter) at the bottom and smaller tires (down to 22") at the top. This gives them a pyramidal form that Paschich finds particularly appealing. "In some old adobe houses, the walls seem to 'puddle' toward the bottom. The tire house has some of this same effect," he points out.

The stacked tires were covered with poultry netting and then stuccoed on the outside and plastered on the inside, making the house virtually fireproof. With its smooth stucco exterior, rounded lines and pueblo-style roof, it fits right in with other houses in the neighborhood. Paula Burrill says that when friends visit for the first time, they're often surprised that the house looks so conventional and attractive.

The house, including the lot, cost about $200,000—on the low side in this area. Utility expenses have been modest too. The house is heated with gas, and the largest heating bill so far was $92 for the month of December. The electric bill is between $35 and $55 throughout the year. There are no water or sewer bills because the house has its own well and a constructed wetlands septic system.

Even though this house was built with construction techniques developed in the West, Paschich says there's no reason why the same techniques and materials couldn't be used in other regions, although



some adaptations might be required to meet different building codes. The advantages of this kind of construction are many. Tire houses can be built at a lower cost than a typical rammed-earth house. They turn a waste-disposal problem—more than 250 million are thrown away in the U.S. every year—into a resource. They reduce the amount of wood required to consstruct new homes. And because building a tire house requires more labor than building a comparable frame house, it creates more jobs in the community.