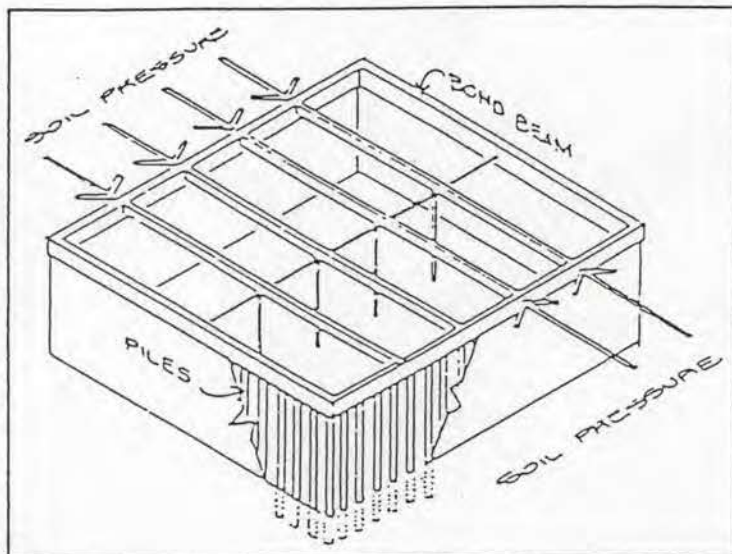
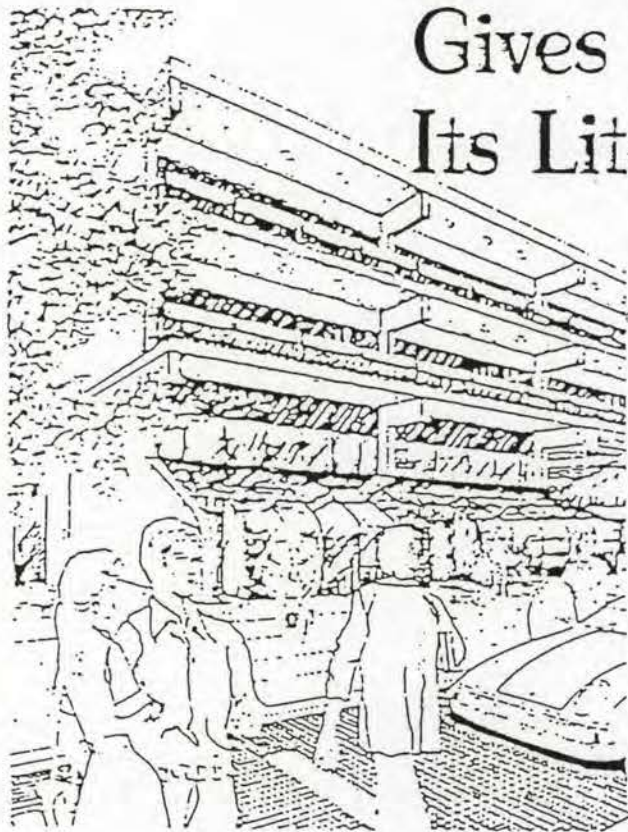


Excavation Technique Gives Matrix Plaza Its Literal Ups and Downs



Scheduled to open this fall, Westwood, California's Matrix Plaza is literally having its ups and downs. Its builders are using a technique to shore up the structure in a way that allows construction to go on above and below ground level at the same time.

The \$7.5-million project combines 40,000 square feet of office space and 15,000 square feet of commercial/retail on four floors with a four-level subterranean garage for 225 cars. The project is a joint venture between A/QUO/D, Los Angeles, and Yony Properties, Inc., Beverly Hills.

The system should cut about six months off construction time for the structure, according to Perry Raanan, engineer and president of A/QUO/D. "The normal concept of construction is that buildings are constructed from the ground up," he said. "In this case, using a rarely utilized engineering concept in the shoring system, we can essentially build both up and down at the same time."

In other words, excavation and construction of the garage and subterranean areas will proceed at the same time the above-ground portion is going up.

The idea isn't totally new — it's common in the Midwest, but quite uncommon in southern California, the location of the Matrix site. It involves beginning at the corners of the site and driving concrete piles (over 110 for this project) about four feet apart around the 150x150-foot perimeter. Next, four- and five-foot beams are poured on top of the piles to secure them and form the shoring. That's followed by a grid of beams laid across the grade to stabilize the shoring at the top of the excavation area. Concrete is sprayed against the earth and shoring as the site is excavated through the grid.

Jerome M. Klipp, senior vice president for A/QUO/D and also an engineer, said the extra cost of this method is more than absorbed in the time saved in the excavation process. Savings at this project are estimated around \$350,000.

"You have to have the right horizontal dimensions to use the system, which forms a matrix, or the shoring won't work," said Klipp. "The depth of the project really doesn't determine its feasibility."

The Matrix Building will be con-

structed of reinforced concrete using precast floor deck, beams and columns to form the frame and shear walls. Above grade, the north and south walls will be concrete block. On the east and west sides, sun-screened balconies will extend beyond the window wall to give a "high-tech" look to the structure, said architect Phillip Jon Brown.

The exterior design will feature white on white steel and concrete articulated surfaces with black accents. Windows are bronze-glass, and glossy white balcony railings are made of 10-inch diameter tubular steel.

The low-rise, horizontal design of the complex will offer tenants a feeling of ground-level ambience, Raanan said. Greenhouse windows line the entire front of the building at the entrance level and offer street-traffic customers good visibility of retail shops and a restaurant in a sunken shopping plaza. The brick paved floor of the inner plaza and two-level entranceway will extend all the way to the street curb.

Leasing agent for the project is the Century City office of Cushman & Wakefield of California. ■