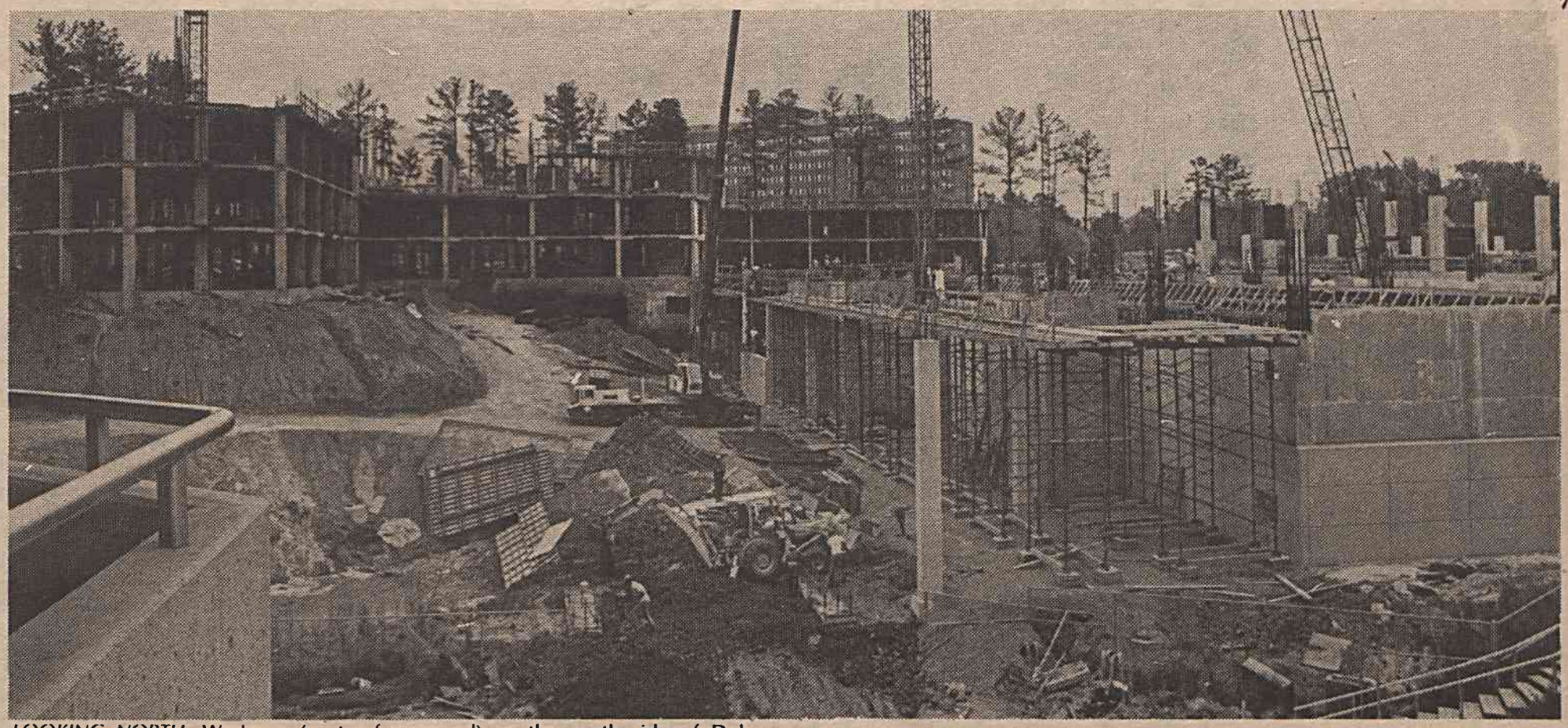

LOOKING NORTH—Workmen (center foreground) on the south side of Duke Hospital North are preparing the guideway for the Personal Rapid Transit system which will run alongside the ancillary building (right foreground) and then connect with a new parking garage under construction on the far side of Erwin Road. In the rear are the bed towers and beyond that the VA Hospital. *(Photo by Jim Wallace)*

New Transit System Will Be Quiet, Quick, Clean, Safe

(Continued from page 1)

Dr. Jane Elchlepp, assistant vice president for health affairs in charge of planning said that "the transportation system was intentionally scheduled for completion in advance of the new hospital's opening so any 'bugs' can be worked out of it before we actually need it for heavy-duty transportation."

The two hospitals also will be connected by a pedestrian walkway, but the PRT will be an all-weather transportation system for patients and Duke employees. A separate car will be used for hauling cargo.

Horizontal Elevator

Elchlepp said the PRT will operate on the concept of a "horizontal elevator," loading and discharging in special lobbies at both of the hospitals. There will be no intermediate stops.

The cars, 15 feet (4.5 meters) long, eight feet (2.44 m) wide and 10 feet (3.05 m) high, will be blue and white on the outside and will bear a Duke logo. They will be red and white and carpeted on the inside.

The passenger cars will have four seating positions and comfortable standing room for about 18 others.

The vehicles, electromagnetically propelled, will travel at 25 miles an hour (40.23 kph) and will make the trip from one hospital to the other in 70 seconds. If a passenger just missed one car and had to wait for the next, there would be a maximum wait and travel time of 166 seconds — under three minutes.

Usually Automatic

During normal operating hours, the cars will function automatically, but during low-usage hours they can be switched to a demand-use system and, like an elevator, will sit and wait until someone pushes the button.

The PRT's air-suspension system will float the 8,300-pound vehicles on cushions of air just a fraction of an inch above the guideway. Linear induction (electromagnetic) motors provide propulsion and braking. Independent fail-safe emergency braking also is provided.

Elchlepp pointed out that the vehicle suspension and propulsion equipment is nearly noiseless, and the system is pollution-free since it is electrically operated.

MAKING WAY FOR THE PRT—About half of the emergency driveway has been fenced off for construction of the lobby for the Duke South terminal of the transportation system which will link the present hospital with Duke Hospial North. *(Photo by John Becton)*

A DIFFERENT PERSPECTIVE—Looking from the fourth floor of the south bed tower in Duke Hospital North gives a different view of the medical center. Clockwise, beyond the construction are the Bell Building, Duke Hospital South and the Mudd Building. *(Photo by Jim Wallace)*