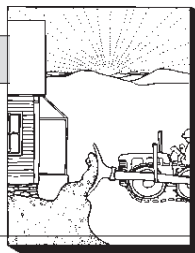


The Building That Wouldn't Fall

by Lewis Lorini



The sky was clear blue on the windless Sunday morning of May 21, 1989, when the ten-story Hartford Park apartment building in Providence, R.I., was scheduled to be demolished.

The calm before the storm so to speak.

The demolition crew had packed the bottom two floors of the 35-year-old building with 650 pounds of dynamite in 1,800 1/3-pound charges. Residences and businesses within several blocks had been evacuated. A crowd of curious onlookers had gathered behind police barricades.

All that was left to do was push down the plunger. Within seconds, the T-shaped high-rise was expected to collapse into a cloud of dust at its base.

The plunger was pushed, and the explosion roared as expected. Black

more dangerous than before.

"We had transits set up to detect even the slightest movement. Concrete isn't like steel that bends. When concrete goes it snaps," he said.

Demolition crews, who had spent about three days positioning the first set of charges, scrambled to place charges in predrilled holes in the stairwells, which were believed to be the final threads supporting the damaged building.

By early afternoon, the second set of charges were installed. The warning siren sounded once again, and the stairwells were turned to dust.

The building creaked and tilted, dropping a couple of stories in height, but it did not fall. The lower of the two wings of the T-shaped structure began to fall until the other wing slammed into it, jamming it upright. The building was a couple of

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smoke and dust clouds engulfed the lower portion of the building, also as expected. But when the smoke cleared, instead of revealing a pile of debris, it was the building standing intact.

Despite the fact that the dynamite blew out much of the ground floors, as intended, the building did not fall, or tilt for that matter. It seemed that the building's three stairwells were holding it up.

Unlike the more typical dynamite demolition technique where charges cause a building to implode, the plan at Hartford Park was to topple the building like a tree, said Merlin DeConti, director of the Providence building inspection department.

"The buildings that implode and fall straight down are steel or wood frame buildings. The charges are set to basically shear the frame members," he said.

At the Hartford Park, the intention was to blow out a wedge at the building's base and let gravity do the rest.

DeConti noted that as a building inspector, his troubles multiplied when the first set of charges failed to knock the building down. Like a wounded animal, this damaged building was now unpredictable and

floors shorter but still standing.

At that point, DeConti said he could no longer allow demolition workers to enter the building. Further complicating the situation was the close proximity of the main computer line connecting all state services, he said.

Architect Jim Carlson, executive vice president of The Robinson Green Beretta Corp. of Providence, the company in charge of the demolition of Hartford Park and constructing the replacement, said the building's unusual design was the main reason it failed to fall as planned.

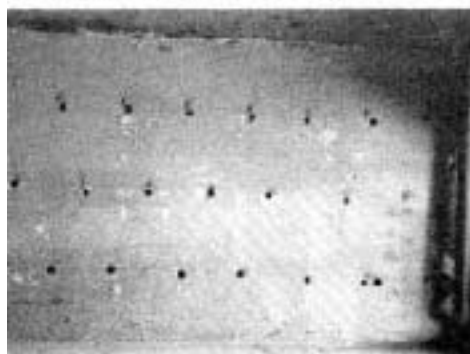
Unlike most steel-reinforced poured concrete structures — which are tables supported by columns — the Hartford Park building used a series of poured bearing walls to support the flat plates or floors, he said.

"It was like a honeycomb with many little cells transferring the load," he said.

Hartford Park was finally leveled in a way familiar to anyone who has had to remove even a small steel-reinforced poured concrete wall, one bone-jarring chip at a time. According to DeConti, it took a pair of cranes with wrecking balls about 10 weeks to finish the job a half-ton of dynamite could only start. ■



The demolition contractor expected to level Hartford Park, a ten-story low-income apartment complex in Providence, R.I., in less than a day.



Crews spent weeks drilling holes in the honeycomb of steel-reinforced poured concrete bearing walls that supported the building. The nearly 1,800 holes were each filled with about a third of a pound of dynamite.



The 650 pounds of dynamite raised a lot of dust but failed to drop the building.



Although the bottom two floors of one wing of the building were eliminated by the blast, it still stood, supported by three stairwells.



A second blast removed the stairwells and caused Hartford Park to tilt, but it took a pair of cranes about 10 weeks to finally level the building.

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