

A Water Conversion Case Study

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BellSouth – Office Tower Atlanta, Georgia

“The test renovation we installed on the eleventh floor convinced us that we really could improve the functionality of the existing system, while saving a tremendous amount of water at the same time. It was a win, win situation.”

Description:

Located on West Peachtree Street in the downtown business district, the BellSouth Office Tower presents one of the most dominant features on the Atlanta skyline.

The forty-five story building serves as the headquarters for one of the nation’s largest telephone companies. In addition to the more than 5,300 people who work within the building, it is estimated that the facility receives, on an average, over 350 visitors daily.

Constructed in 1980, the office-tower contained 458 Flushometer toilets and 152 urinals. Coyne-Delaney manufactured most all of these fixtures. Not only did these older units require a tremendous amount of water to function properly, but also over the years they had become an extremely high maintenance problem for the building’s property manager, Carter & Associates.

Goals:

While it was the primary goal of the property manager to reduce the building’s water/sewer expense, a secondary goal of almost equal importance, was that of reducing the ongoing high maintenance costs.

After a thorough audit and evaluation, the UEA design team recommended that all of the building’s Coyne-Delaney valves be replaced with new Sloan valves fitted with calibrated inner parts from HydroEnhanced Laboratories Inc. (HLI).

This UEA type of renovation would allow the converted fixtures to function using almost two gallons less water per flush, and would also provide years of maintenance free service.

Solutions:

Test fixtures were installed in all of the bathrooms on the Tower’s eleventh floor to allow management to test the water savings and also evaluate the functionality of the renovation. The eleventh floor was selected for testing because of its recent high maintenance problems.

The evaluation test was very successful. The consumption of the renovated fixtures dropped from over 4.5 gallons per flush to 2.75 and the maintenance calls to this floor, which had persisted for many months, were quickly eliminated.

After reviewing the test results, Carter & Associates recommended the project to BellSouth who in turn approved the expenditure.

Working nights and weekends (after normal business hours), UEA technicians began at the top of the tower and worked their way down to the basement, completing the project within just six days.

Because ALL stops were to be replaced as part of this renovation, and the tower’s turnoff valves were located eight floors apart, the water had to be turned off and the system drained eight floors at a time. This arrangement required the renovation of 120 fixtures per work night. Once the work was underway, the installation contractor took care to provide signage at all restrooms under renovation, directing the building occupants to the nearest alternative facilities.

Components:

UEA’s specification for this project was followed precisely. All stops and spuds were replaced and all new Sloan valves (fitted with HLI parts) were installed. Each fixture was calibrated and tested extensively for both efficiency and functionality. All HLI replacement parts carry a five (5) year warranty and their exacting performance requirements are expected to continue for many years past the initial warranty period.

Results:

By working after hours and cleaning and mopping as they went, the UEA technicians were almost undetectable. Most of the building’s 6,000 daily occupants were totally unaware that a major renovation was in progress.

The renovated fixtures worked perfectly, removing all waste materials effectively while utilizing only 2.5 gallons of water per flush.

All leaks found within the building during the renovation were eliminated. Maintenance requirements to maintain the Tower’s plumbing system have been dramatically reduced.

Environmental:

This renovation will save over 7,800,000 gallons of water per year. At Atlanta’s current water/sewer rate, of \$5.45 per thousand gallons, that’s over \$44,000 a year. When maintenance savings and projected rate increases are added together the total savings during the next ten years should be well over \$500,000.



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