# Underfloor Air Distribution

## Federal Building

**Federal Building**
*Oklahoma City, Oklahoma*

**Architect:**
Ross Barney + Jankowski

**Contractor:**
Flintco, Inc.

**Size:**
180,000 gsf

**Budgeted cost:**
$31.5 million

**Completion:**
December 2003

GSA noticed that 33% of its tenants in Oklahoma City changed their office space annually due to reorganizations or other reconfigurations. Through the use of underfloor air distribution and individual control over airflow, the cost of office churn can be reduced dramatically. A peer review of the initial building design resulted in a concrete structure with underfloor air and a reduction in floor-to-floor height of 15".

***Floor tiles can easily be moved to accommodate changes in voice/power/data connections and floor registers.***

# Underfloor Air Distribution

**Alfred A. Arraj U.S. Courthouse**
*Denver, Colorado*

**Architect:**
HOK/Anderson Mason Dale

**Contractor:**
PCL Construction Services

**Size:**
320,000 gsf

**Budgeted cost:**
$85 million

**Completion:**
October 2002

## Alfred A. Arraj U.S. Courthouse

A displacement ventilation system in the courtrooms of the Denver Courthouse features low-velocity air introduced at the floor level to efficiently condition the space and remove indoor air pollutants. An early concern about cooling the courtrooms led to a heat load test to demonstrate system performance. The U.S. Courts are now quite pleased with the underfloor air, particularly with how quiet it is.

***Natural cork flooring, traditional in courthouses of the 1930's, was used as the finish on the floor panels.***