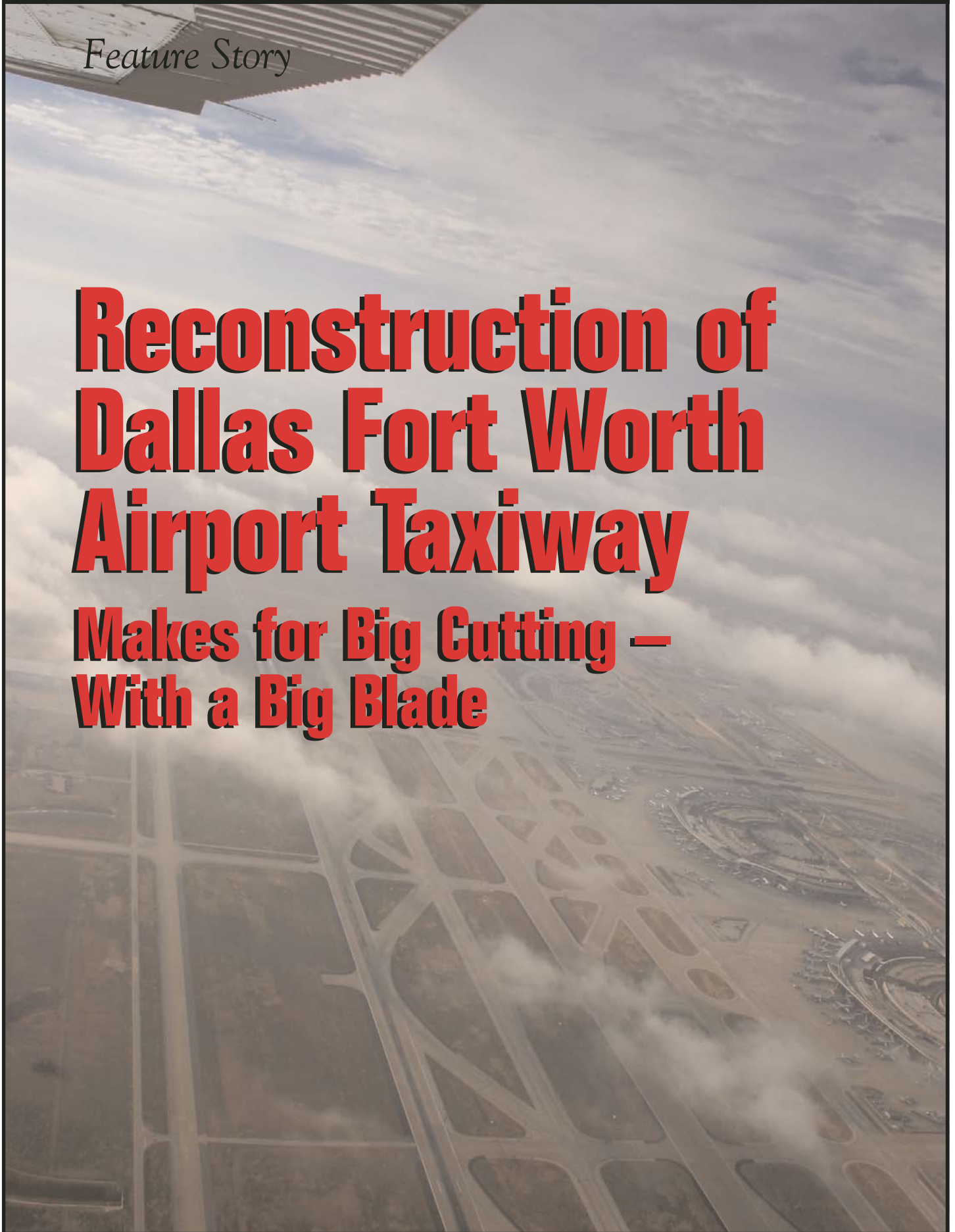


Feature Story

Reconstruction of Dallas Fort Worth Airport Taxiway

Makes for Big Cutting – With a Big Blade



Considered to be the number one economic engine for the Dallas / Fort Worth metroplex, the Dallas / Fort Worth International Airport (DFW) covers more than 29.8 square miles and is located in the cities of Euless, Grapevine, Irving and Coppell, Texas. It is the second largest airport in the United States and the third largest in the world in terms of operations, housing five terminals, 165 aircraft boarding gates and seven runways with one more being planned.

An airport of this magnitude and production requires constant maintenance on runways, terminals and gates to keep operations running smoothly and safely. In September 2005, DFW International awarded a \$21.3 million airport taxiway reconstruction project to general contractor Granite Construction Co. The project involves the reconstruction of the existing Taxiway K, the main taxiway for all airplanes to maneuver to their

assigned gates. Taxiway K is 8,500 feet long and will require work to be completed in 7 phases and 10 sections.

The details of the reconstruction process include removing existing concrete and asphalt pavement, unclassified excavation, repavement, drainage, pavement markings and electrical work. Granite Construction contacted CSDA new member Caprock Specialty Contractors of Dallas, Texas to help with the removal of the concrete pavement. Caprock has, for the last five years, specialized in flat sawing, core drilling, wall sawing as well as grinding and grooving in the Dallas and Houston areas.

For this job, it was decided that flat sawing was the best alternative to cut the perimeter of the area to be removed. The contractor would then use guillotine stompers on the interior area of the taxiway. Caprock Specialty Contractors felt that flat sawing was a better alternative to cut through the 1 1/4 inch

Flat saws were used with varying diameters to cut the perimeter of Taxiway K at DFW International Airport.



dowels found at the joints. In addition, flat sawing would provide a better way to prevent any damage from vibration to the communication and guidance system of the airport while maintaining a tight work schedule.

The first cut on the perimeter was made with a saw that had a 20-inch x .250-inch blade and thereafter they increased blade sizes in steps, ranging in size from 36 inches x .250 inches; 48-inch x .220; 54 inches x .187 inches; to 60 inches x .187 to 72 inches x .220 inches. At this stage of the sawing, they had to adapt a 48-inch x .0375 inch quarry blade to widen the cut before using a 90-inch x .375-inch blade to cut the remaining nine inches of concrete to achieve the required depth of 41 inches.

The next step in the sawing process was to locate the 90-inch blade to finish the cutting. CSDA manufacturer-member, K2 Diamond, of Torrance, CA located a 90-inch blade core in the United States and added the necessary segments to the blade to make the final cut. Diamond Equipment Services was instrumental in helping out with the next step, which was to attach a Caterpillar skid steer 262b to the blade so workers could pick the 700 pound blade up out of the cut and move it to the next area to be cut.

The attachment of the blade to the skid steer was the main safety concern that Caprock faced with this job. They planned an arbor with an eight-inch hub and a six bolt pattern to hold the blade on to prevent failure and they also integrated a bypass on the hydraulic system to prevent damage to the blade or the machine in the event that the blade locked up. They also

fabricated a blade guard that was reinforced at the leading edge to contain the blade in the event it became detached while operating. So far, Caprock is pleased with the performance of the equipment. In fact, Brad Boyd, general manager for Caprock, says that the modified piece of equipment has "saved us a tremendous amount of time associated with making a cut this deep and the ability to move the blade without detaching it has proved to be one of the key reasons we have been able to maintain the cutting schedule."

The process of removing and replacing the Taxiway K at DFW International Airport is an ongoing job for Caprock Specialty Contractors, with an expected completion date of January 2007. When this job is completed, Caprock will have cut a total of 1900 lineal feet of reinforced concrete, at a depth of 41 inches and they will have cut and sealed 100,000 square yards of green concrete. ●

COMPANY PROFILE

A full service contractor with offices in Dallas and Houston, Caprock Specialty Contractors offers a broad range of services including commercial waterproofing, diamond polishing, concrete staining, flat and wall sawing, core drilling and grinding and grooving. Caprock Specialty Contractors recently joined CSDA in February 2006.

Resources:

General Contractor: Granite Construction Company

Sawing and Drilling Contractor:

Caprock Specialty Contractors

Dallas, Texas

Methods Used: Flat Sawing

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Workers cut in different stages in order to achieve the required depth of 41 inches.



Airport operations continued as usual while workers cut the perimeter of Taxiway K.