

Airport Security Planning & Design

Location: Branson, Mo.
Client: Branson Airport LLC
Completion Date: 2009



PROJECT SUMMARY

Burns & McDonnell provided design and construction administration services, including security features, for a new, privately funded, public-use commercial service airport serving Branson, Mo., and the Tri-Lakes Region of southwestern Missouri.

A combined access control and security camera system for the entire terminal and other airfield locations are controlled from a central security room. The flight information display system was designed to either be hosted off site or stored on site. A common network supports all airport tenants, minimizing costs, including long-term maintenance costs. International Air Transportation Association common use passenger processing systems were used for the ticket counters and gates to maximize the efficiency of airport staff. Public and private wireless networks are provided throughout the terminal. A zoned public address system handles automated announcements as well as manual microphone inputs.

PROJECT BACKGROUND AND DESCRIPTION

This airport is the first in the continental U.S. to be built using private funds. Burns & McDonnell was also responsible for obtaining all construction permits, including land disturbance, Corps of Engineers 404 permit and utility permits.

The new airport consists of a 7,140-foot-long runway; connector taxiways; apron; four-gate, 58,000-square-foot terminal with aircraft rescue firefighting facility; air traffic control tower; FBO and general aviation facilities; Category I instrument landing system, runway and taxiway edge lighting; runway end identifier lights; aboveground fueling facility; and more than 10 million cubic yards of earthwork. The new airport was built to Federal Aviation Administration (FAA) Group D-IV standards. The fuel farm consists of two 20,000-gallon Jet A tanks, a 12,000-gallon self-serve AvGas tank, a 2,000-gallon split mogas/diesel tank and a 15,000-gallon glycol storage tank.

Technology systems were selected to allow for an economical initial installation while enabling easy expansion as the airport grows and flights increase.

Landside features of the airport include a 3-mile access road with two bridges, a 500-vehicle parking lot with terminal roadways, a wastewater treatment plant, underground water wells with a pumping station, a utility distribution network and stormwater management. A rental car facility with a ready/return lot and vehicle maintenance facility was designed and constructed.

Burns & McDonnell was also responsible for procuring an aeronautical survey to comply with FAA standards for developing instrument approaches into the airport. We worked with the owner and the FAA to develop a timeline of critical activities required for commissioning and activating a new airport. This involved meetings with the FAA to outline the steps required to open a new commercial service airport with instrument approaches.

Ultimate airport development includes a 16-gate terminal, a 9,000-foot runway with full parallel taxiway, and expanded parking and utility systems.



