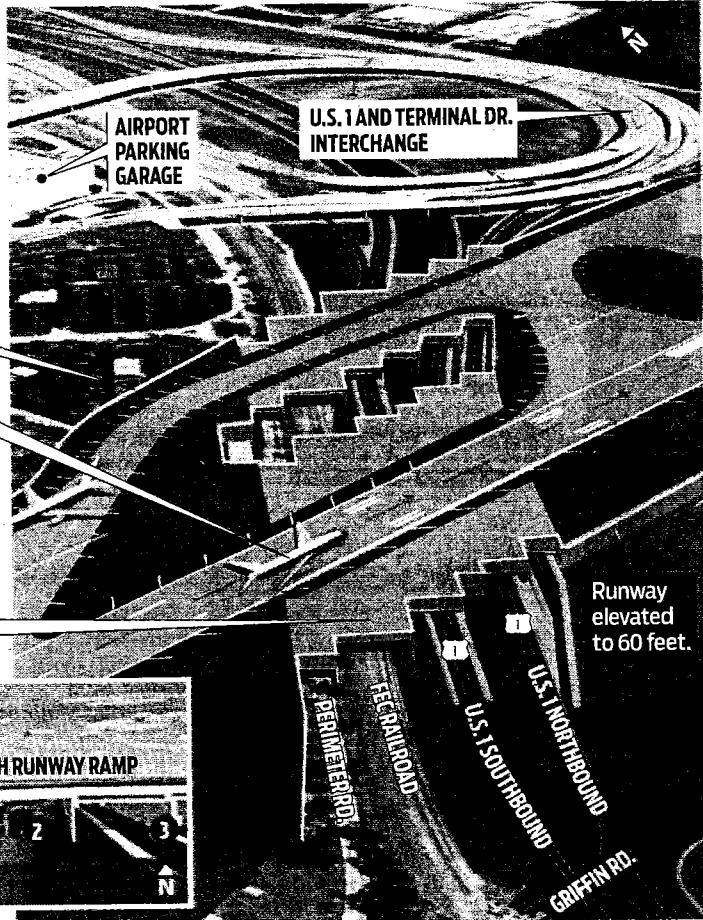


Elevated runway in our future

The south runway at Fort Lauderdale-Hollywood International Airport will include a gentle slope over U.S. 1 and the FEC railroad tracks.

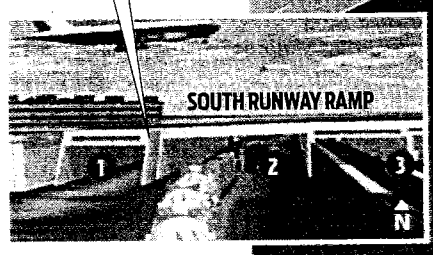


Ramp highlighted

Most planes will take off to the east, over the ocean.

North view of bridge formed by ramp.

1. Perimeter Road
2. FEC Railroad
3. U.S. 1, southbound and northbound



Runway elevated to 60 feet.

Images courtesy of Broward County Aviation Dept. CINDY JONES-HULFACHOR/STAFF ARTIST

Huge airport project prepares to fly high

How is it being built? What's the cost? We break it down

BY KEN KAYE
Staff writer

Although it will be built much like a typical highway, it's unlike any roadway South Florida has ever seen.

When completed in September 2014, the south runway at Fort Lauderdale-Hollywood International Airport will be built on a gentle slope, climbing six stories above ground level. A portion of the 8,000-foot strip will be bridged over U.S. 1 and the FEC

railroad tracks.

Sloped runways exist at other airports — in Atlanta, Las Vegas and Seattle, for instance — and some reach even higher than this. Still, "it's definitely one of the biggest, most important and complex airport projects in North America," said Kelly Fredericks, senior vice president of The Corradino Group, and the runway project manager.

Here's how it will be built, by the numbers. **Page 9A**

Online

View a video and animation of the new runway at broward.org/airport/fllair

New runway will slope above U.S. 1

34 The number of months it will take to complete the project.

In that time: The existing south runway will be torn up, the bridge over U.S. 1 will be built and Terminal 4 will be reconfigured, with four protruding gates moved from its south to west side. The Hilton Hotel will be demolished and airport ramps on the south side entrance roadway network will be relocated.

1.25 The number of degrees the new runway will slope upward, until it reaches a height of about 60 feet. The slope will start at about the midpoint of the runway. Although some fear it will look like a ski slope, Fredericks insists the angle "really will be very gradual. To passengers, it will have a minimal effect."

All taxiways associated with the runway also angle upward to a flat area at the east end of the runway.

6 Tunnels will be built into the bridge structure to accommodate the airport's perimeter road, an airport entrance roadway, the railroad tracks, northbound and southbound U.S. 1, and one targeted for future use, likely light-rail.

When motorists on U.S. 1 approach it, the bridge will appear to be a wall of concrete, well-landscaped and painted in Florida colors, said Steven Wiesner, director of the airport expansion program. "Our intent is to provide a finished product that's appealing to the eye," he said.

7 million plus

Cubic yards of soil material will be brought onto the site, via 700,000 truckloads, to provide a foundation for the runway. About 5 million cubic yards of it will be used to build the slope leading to the bridge.

The enormous amount of earth will help stabilize the land. "The weight of all that earth helps to crush and compact all the existing soil," Wiesner said.

535,000

Square yards of concrete will be needed - about the same amount used to lay down a 16-mile stretch of two-lane highway - even though the runway will be about a mile and a half long.

The difference? While highway concrete is about 4 to 10 inches thick, the runway concrete will be 17 inches thick, laid on top of a 26-inch aggregate base. It must be strong enough to absorb the constant pounding of aircraft landings, including 400-ton jumbo jets.

150

How many feet wide the runway will be, not including 35-foot wide shoulders on either side. The existing south runway is 100 feet wide.



JOE CAVARETTA/STAFF PHOTOGRAPHER

A Spirit airliner taxis as construction of the Fort-Lauderdale-Hollywood International Airport south runway continues.

90,000

Tons of asphalt will be used for other airport surfaces.

2,648

Concrete piles will be driven into the ground to bolster the east end of the runway and the bridge structure. Additionally, there will be 839 pre-stressed concrete beams.

520,000

Square feet of paint for runway markings.

1,200

Runway and taxiway lights, plus more than 90 miles of electrical cable, more than five miles of drainage pipe and 77 acres of turf installed.

400,000

The total number of takeoffs and landings a year the airport will be able to handle after the runway is completed.

"We average between 600 and 800 operations a day, which equates to just over 200,000 operations a year," said airport spokesman Greg Meyer. "By having two commercial runway operations, we can double the number of operations annually."

10R-28L

The number of the new runway. As of May 2013, the airport's diagonal runway, 13-31, will be closed permanently and the airport will go from three runways to two. During the last phases of construction, the airport will only have its north runway open.

\$1 million

The cost of construction per day. That includes worker pay and accommodations.

11,000

Temporary jobs created over two and half years. During the peak of construction, more than 400 workers will be on the job at any one time.

\$1.24 billion

The estimated cost of the entire project. That includes \$751 million for the runway, \$450 million for reconfiguring Terminal 4 and \$40 million for property acquisition.

"It's going to be a major undertaking," Fredericks said. "But when it's done, the airport will be much more efficient."

— Ken Kaye

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