

MEMORANDUM

TO: Huntsville City Council and City Engineering Staff
FROM: Sadie Robb, Lochner
SUBJECT: Constraints for Alternative Runway Alignment – Airport Master Plan
DATE: 16 March 2020

The Airport Master Plan for Huntsville Municipal Airport (UTS) was presented to the City Council in a workshop on 3 March 2020. During the workshop, the preferred development alternative for the runway extension that is warranted by the 20-year forecast was discussed. This memo intends to provide information to clarify why the preferred development alternative was chosen in the Airport Master Plan.

How Long Does Our Runway Need to Be?

The current runway is 5,005 feet in length. The demand forecast in the Master Plan found that a length of 5,500' would satisfy the needs of the current and projected critical aircraft, which is the term for the type of aircraft the FAA uses to plan growth needed at airports.

How Much Will Extending the Runway to 5,500' Cost?

Extending the runway to 5,500' would cost approximately \$25 million. Of those costs, approximately 90% would be eligible for state/federal funding, meaning the City would be responsible for about \$2.5 million. These costs would likely be spread out over a 5-year timeframe.

What Happens When We Want to Grow Beyond 5,500' at This Location?

Continuing to extend the runway beyond 5,500' in its current location presents a challenge for future expansion projects beyond that length. Continuing to extend to the north would entail crossing of more tributaries to Hadley Creek, and would ultimately require acquisition and relocation of residents in the Northgate Meadows subdivision. Expansion beyond 5,550' would warrant a new analysis on required runway length and costs of development, as the critical aircraft of the airfield will likely have increased in size, and land use in the vicinity of the airport may have changed since the time of adoption of this Airport Master Plan. **In the future, should a runway longer than 5,500' in length be justified using the FAA criteria, relocation of the airport could be eligible for state/federal funding if future studies find that further development at the current site is impractical from a cost or environmental standpoint.**

Why Won't TxDOT or the FAA Help Us Construct a New Runway Elsewhere Now?

The FAA and TxDOT will only provide funding to accommodate the critical aircraft forecasted for the 20-year timeframe in the Airport Master Plan. At this time, a runway extension beyond 5,500' would not be eligible for state or federal funding. Moreover, an extension to 5,500' with the current alignment has fewer environmental impacts and is more cost efficient than building a new 5,500' runway elsewhere. As such, TxDOT has indicated that the current alignment of the runway is the

most likely to receive future state or federal funding. However, the City may use its own funding to build a longer runway or a new runway in a different location.

How Have Other Airports Grown Beyond What Was Forecasted In Their Master Plans?

Other airports in the state, such as Conroe-North Houston Regional Airport, have expanded rapidly beyond the runway length that their Airport Master Plan justified in the 20-year timeframe. These airports used funding mechanisms such as public/private partnerships to grow without assistance from federal funding.

How Much Would it Cost to Self-Fund a New Runway in a New Location?

The Master Plan Advisory Committee was presented the constraints of building a runway on a new alignment, which was presented as Runway 16-34 in the 2003 Airport Master Plan. This alignment was dismissed in the 2003 Master Plan due to its financial and environmental impracticality. However, it was reintroduced as a discussion topic during the meetings involving the current Master Plan.

Constructing a new runway in the location depicted in the 2003 Master Plan would involve even more extensive environmental impacts than extending to 5,500' on the existing alignment. Although a tract of City-owned land would be able to be utilized for some of the development, hundreds more acres would be necessary to accommodate the new runway pavement and its safety areas and protection zones. Construction of a new Runway 16-34, even with only 5,500' in runway length, could cost upward of \$70 million. As this alignment requires construction on a former landfill, extensive geotechnical analysis would need to be conducted to determine if this alignment is feasible. Furthermore, extension of the runway beyond 5,500' in the long-term future would be costly, as the amount of fill that would be necessary to accommodate the development would be substantial. At this time, construction on this alignment would not be eligible for state or federal funding.

What Is the Benefit in Adopting this Airport Master Plan?

Extending the Runway 18-36 to 5,500' would allow the larger aircraft that currently utilize the existing 5,005' runway to land more frequently throughout the year, and to purchase more fuel prior to departing the airport. It would also provide better airfield geometry and a longer runway for larger aircraft to be based at the airfield. This increase in use of the airfield by larger aircraft could result in a change in the critical aircraft in the coming years. This would be the threshold necessary for future runway extensions beyond 5,500' and further evaluation of the best location for the longer runway.

To be eligible for funding through the FAA or TxDOT, the runway extension must be justified in the Airport Master Plan and depicted on the Airport Layout Drawing that is included in the Plan. Should the City choose to reject the Airport Master Plan, future expansion of the runway would be ineligible for FAA funding. Adoption of the Airport Master Plan does not preclude the City from planning or designing a new runway in a new location using private or local funding.