

Drive is planned to accommodate aviation activities. In order to provide aircraft access to this area, a northerly extension of Taxiway R is being proposed. Two other parcels adjacent to the south of this site are also designated for aviation development. It should be noted that the layouts for these three parcels are currently under design by the airport's engineer and will be presented on the recommended development concept to be included later in this study.

Additional aviation development is also proposed to the east of Mariner Drive. Currently, a hangar facility and helipad associated with the City of Dallas Police Department are located in this area. Future consideration should be given to allowing additional landside development in the form of aviation-related activities to further bolster airport revenues. A roadway extending east from the outer road associated with U.S. Highway 67 is also proposed which would provide another automobile access point serving landside facilities in this area. Prior to future development in this immediate vicinity, significant drainage improvements will be needed, which are currently under design in a separate study from the Master Plan.

Exhibit 4T also proposes non-aviation development in the east landside area that could support commercial, retail, industrial, office, and business park land uses. Alternative 1 depicts six non-aviation parcels between 3.1 and 3.6 acres in size located between South Hampton Road and Mariner Drive. Automobile access to these parcels would be provided by extending a frontage roadway system east from South Hampton Road. Another option for potential non-aviation development is proposed in Alternative 2, which also allows for six parcels ranging in size

from 2.0 to 4.2 acres. This alternative includes a more extensive roadway network connecting South Hampton Road and Mariner Drive.

Any future development in this area should consider the residential development immediately east of South Hampton Road. As such, designating portions of airport property immediately adjacent to the west of South Hampton Road for non-aviation purposes could help serve as a noise buffer between the residential communities and aircraft movement areas farther west on airport property.

Other areas adjacent to South Hampton Road and Challenger Drive on the east side of the airport are not provided with airfield access. Providing access to these areas would be very challenging due to topography and associated costs to improve the area. As a result, these areas could be developed for non-aviation uses. Seven non-aviation parcels are proposed ranging in size from approximately one to five acres. Prior to allowing non-aviation development in these areas, the City of Dallas – Aviation Department would need to get approval from the FAA to release property for this use.

Other landside considerations on the east side of the airport deal with providing additional and more efficient

use of aircraft parking apron space at Dallas Executive Airport. Currently, parallel Taxiway A, serving the southern portion of Runway 13-31, is located 530 feet from the runway (centerline to centerline). Under ultimate planning conditions, only 400 feet of separation is needed between the runway and parallel taxiway. As a result, **Exhibit 4T** depicts the relocation of Taxiway A 130 feet south and, in doing so, allows for additional aircraft parking apron space along the flight line. In addition, seven apron in-fill areas are proposed adjacent to Taxiway A that will increase parking apron spaces, while also providing for more efficient aircraft taxiing operations adjacent to FBOs and other specialty aviation operators.

WEST LANDSIDE CONSIDERATIONS

Currently, the airport traffic control tower (ATCT) and airport maintenance building are located on the west side of the airport, approximately 1,000 feet and 1,200 feet southwest of the intersection of Runways 13-31 and 17-35, respectively. In addition, approximately ten acres of land on the west side of the airport is dedicated to activities related to the Texas National Guard Armory. Although the east side of the airport can continue to accommodate aviation demand in the short term, the City of Dallas has made a



concerted effort to improve the airport's west side to include the extension of roadway and utility infrastructure in order to accommodate future aviation and non-aviation activities. As such, development alternatives for this area were also studied and discussed in the following section.

The west landside alternatives to follow focus on potential development southwest of the intersection of Runways 13-31 and 17-35. These alternatives consider the construction of a taxiway running parallel to portions of each runway in order to provide aircraft access to the entire airfield system. Per airfield design standards previously discussed, the partial parallel taxiway serving Runway 13-31 is proposed at 400 feet from the runway centerline, while the partial parallel taxiway serving Runway 17-35 is located 300 feet from the runway centerline. Furthermore, the extension of a taxiway farther southeast serving the south side of the approach end of Runway 31 is also depicted. Given the location of the ILS glideslope antenna and its associated critical area, this taxiway is set back 750 feet from the runway centerline. Providing taxiway access through the southeast side of the airport could potentially allow for landside development that supports aviation activities as demand may warrant.

An area of open space is provided around the ATCT that allows for a security buffer between it and potential public landside development. Previous security guidelines for the placement of airport facilities indicated that a 300-foot buffer be in place for ATCT facilities. More recent guidelines set forth by the Transportation Security Administration (TSA) base security setbacks on elevated threat levels and other factors rather than specific distance requirements. In any event, coordination between the

FAA, TSA, and City of Dallas – Aviation Department will be necessary in order to address all ATCT security needs as the west side of the airport is developed.

West Landside Alternative 1

West Landside Alternative 1 is shown on **Exhibit 4U**. This alternative designates approximately 1,300 feet of land south of Runway 13-31 for aviation development. The principal philosophy followed is to group facilities supporting similar activity levels together.

The construction of a large aircraft parking apron and movement area would allow access to six conventional hangars west of the ATCT as presented on the exhibit. Each of these is approximately 40,000 square feet. An array of general aviation activities could be accomplished in this centrally located high-activity area ranging from large aircraft storage to more specialized FBO operations. East of the ATCT, six more hangars, although smaller in size, are proposed that would share an aircraft parking apron being proposed adjacent to the west of Runway 17-35.

To the west of the large conventional hangars and aircraft parking apron are approximately 11 acres of land designated for executive hangar development. These hangars are often utilized by corporate flight departments that possess their own aircraft, or an individual or group of individuals, that have several aircraft. Aircraft access to these hangar facilities is provided by a by-pass taxiway located south of the proposed parallel taxiway serving Runway 13-31.

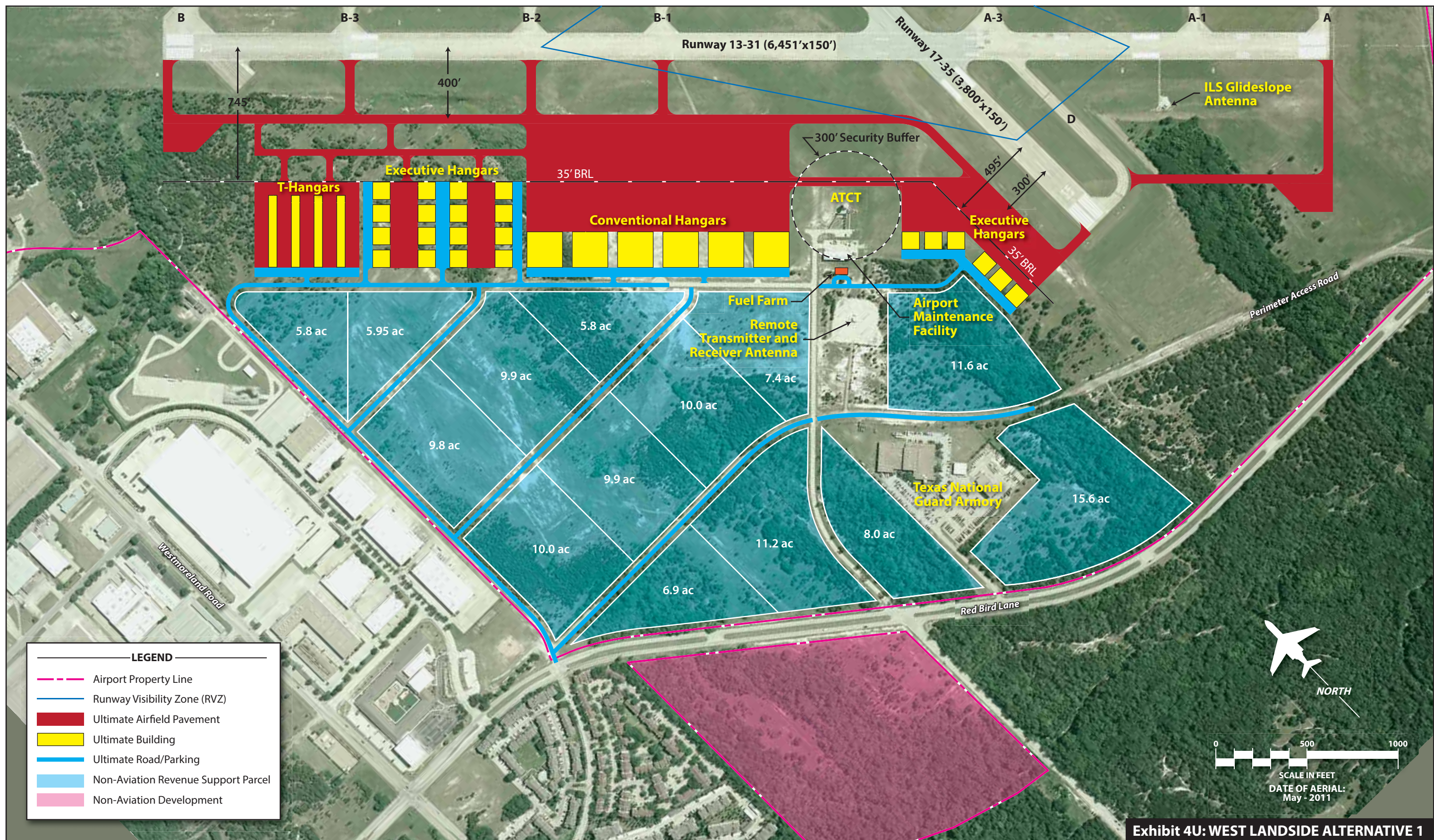
Additional development in the form of four T-hangars and/or linear box

hangars is proposed toward the property line on the west side of the airport. These lower-activity aviation facilities are typically dedicated for private aircraft storage only and set farther away from the central area of the airfield, which is preferred. Two taxilanes extending south from the by-pass taxiway would allow aircraft access to this area.

If aviation demand warranted the build-out of these aviation facilities previously identified on the west side of the airport, additional aircraft fuel storage space may be needed to accommodate the aviation growth. As a result, a fuel farm is shown directly south of the airport maintenance facility.

This alternative depicts future airfield access development occurring north of an automobile access roadway that extends west from an existing road that cul-de-sacs approximately 1,100 feet southwest of the ATCT. To the south of this road is a large area designated for 14 non-aviation development parcels that range in size from approximately 5.8 to 15.6 acres. These parcels could accommodate compatible land uses such as commercial, industrial, office, and/or business park activities that do not require airfield access, which is desirable given the significant drop in terrain moving south from the runway system at Dallas Executive Airport. It should be noted that similar land uses currently exist immediately adjacent to the west side of airport property. An extensive roadway network is proposed providing vehicle access to these parcels.

South of Red Bird Lane, the airport owns approximately 38 acres of land that is currently void of any development. Steep terrain features in this area will warrant costly improvements prior to



landside development. Nonetheless, this area is designated for future non-aviation development as demand may dictate.

West Landside Alternative 2

West Landside Alternative 2, depicted on **Exhibit 4V**, maintains the central area on the airport's west side for high-activity aviation development in the form of four conventional hangars. Significant apron construction would allow aircraft movement areas to these facilities. Also included in this area are four aviation parcels that could support executive hangar development. Aircraft access to this area is provided by two taxiways extending south from the parallel taxiway serving Runway 13-31.

Additional aviation development in the west area of the airport is further proposed in this alternative to include a dedicated fuel storage area and ten aeronautical parcels and their respective layouts. Aviation activities in this area are extended farther south than what is proposed in Alternative 1. Aircraft access to these parcels is provided via taxiways extending south from the proposed parallel taxiway. To the east of the ATCT, 4.5 acres of property are identified for future aviation development divided into three parcels. These parcels could be leased to private entities, who in turn, construct hangar facilities to accommodate aviation activities.

Similar to the previous alternative, a large area of non-aviation revenue support development is present on Alternative 2. While the total acreage dedicated to non-aviation activity is less than what is proposed in Alternative 1, the number of parcels offered is more than doubled. As depicted, 29 non-aviation

development parcels are considered ranging in size from approximately two to six acres. A roadway network similar to what was shown on the previous alternative provides vehicle access to these parcels.

West Landside Alternative 3

Exhibit 4W depicts the final alternative for this landside analysis. West Landside Alternative 3 proposes five separate taxiways extending south from the parallel taxiway system serving Runways 13-31 and 17-35, each of which lead to separate aviation development areas and activity levels. Immediately west of the ATCT, two taxiways lead to aviation facilities in the form of nine conventional hangars centrally located on the west side of the airport that could support FBO and other specialty aviation functions. Large apron areas adjacent to the hangars support high-activity levels of aviation demand.

Farther west, a third taxiway leads to a complex of smaller hangar facilities encompassing approximately ten acres of land combined. While this area would need to be designed to accommodate a range of aircraft, including smaller single engine airplanes to business jets, it is intended that this area serve medium levels of aviation activity including group aircraft storage and smaller amounts of specialty aviation businesses.

A fourth taxiway farthest west from the ATCT leads to T-hangars and/or linear box hangars in addition to two aviation development parcels. These areas should be planned for low-activity aviation levels in the form of private aircraft storage. To the east of the ATCT, a taxiway extending southwest of the partial parallel taxiway serving

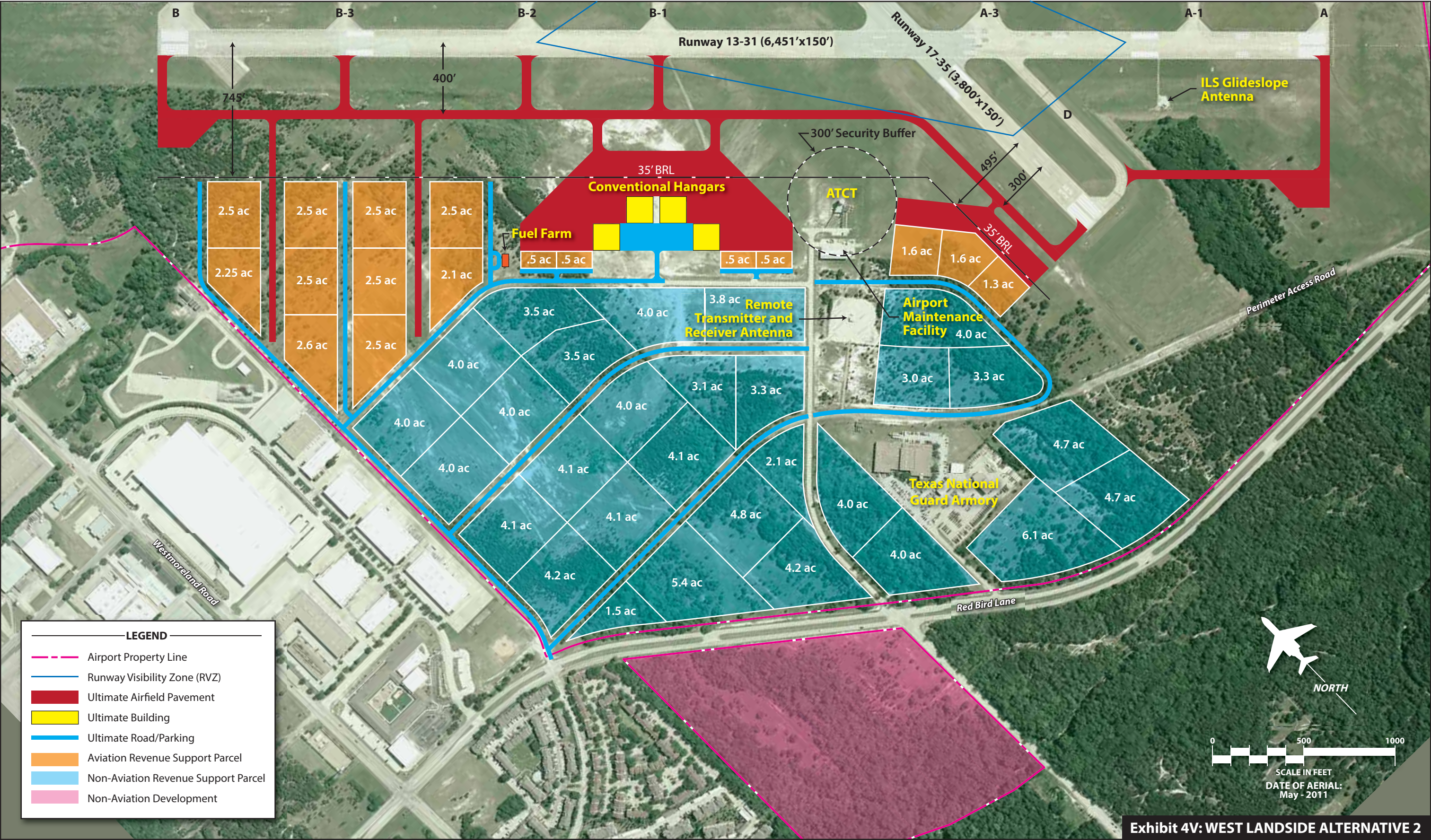
Runway 17-35 leads to two aviation development parcels containing 2.1 and 1.8 acres, respectively. A fuel farm is depicted on this exhibit, located approximately 400 feet southwest of the ATCT with direct access from the main roadway leading north from Red Bird Lane.

Just as in the two previous alternatives, land is set aside for non-aviation development uses to the south of the aviation-related development extending to Red Bird Lane. In this alternative, nine parcels are outlined ranging in size from 6.2 to 31.7 acres.

SUMMARY

The process utilized in assessing airside and landside development alternatives involved a detailed analysis of facility requirements through the long term planning horizon and, in some cases, beyond. Current and future airport design standards were considered at every stage of the analysis. Safety, both in the air and on the ground, was given a high priority in the analysis of alternatives.

After review and input from the PAC, City of Dallas – Aviation Department, TxDOT, and FAA officials, a recommended development concept will be put forth by the consultant. The resultant plan will represent an airside facility that fulfills safety design standards and a landside complex that can be developed as demand dictates. The development plan for Dallas Executive Airport must represent a means by which the airport can evolve in a balanced manner, both on the airside and landside, to accommodate the forecast demand. In addition, the plan must provide flexibility to meet activity growth beyond the long range planning horizon.



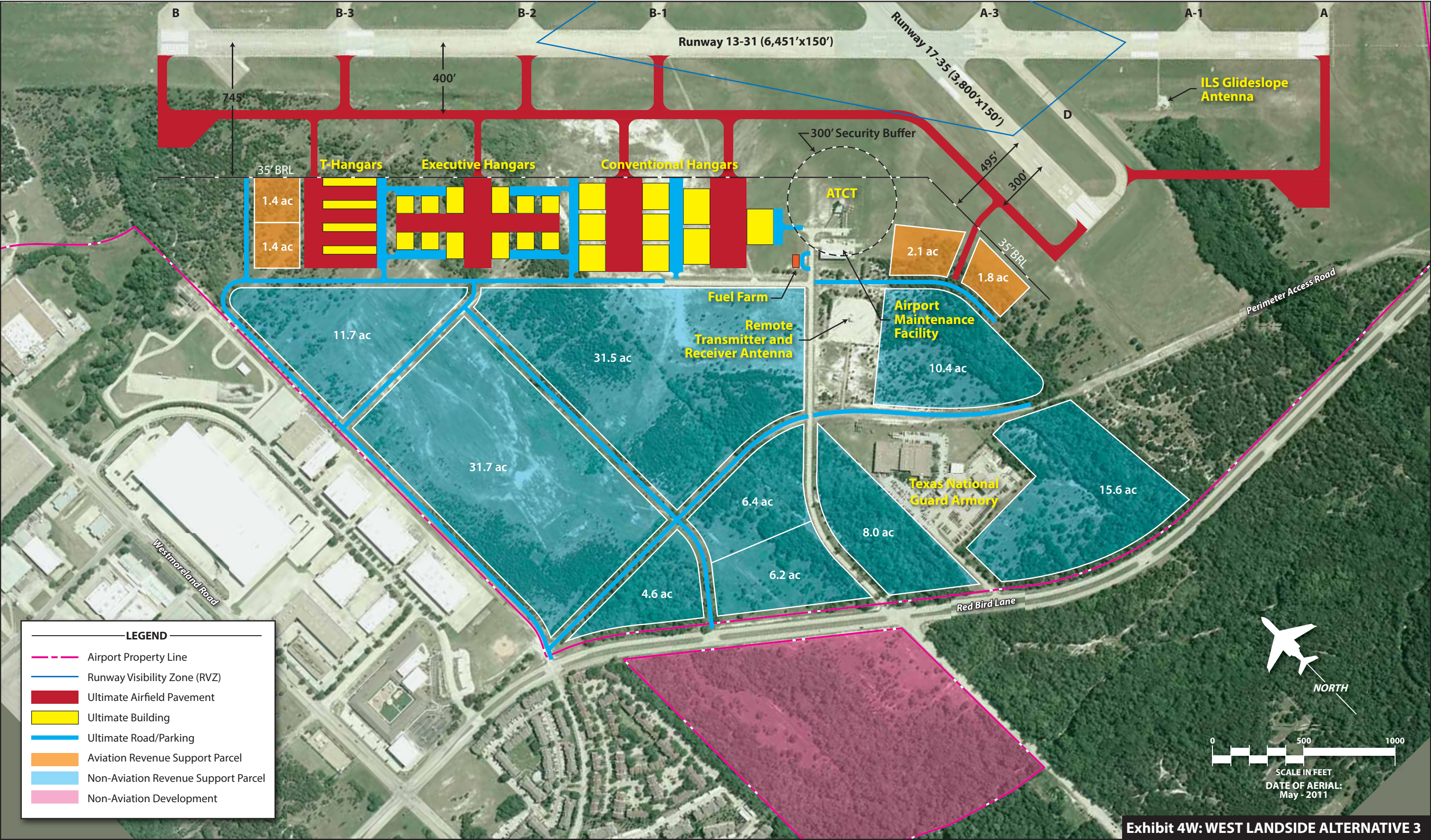


Exhibit 4W: WEST LANDSIDE ALTERNATIVE 3