According to the Drainage Study included in Appendix E, construction of a taxilane through Study Area 2 will require additional stormwater detention to replace the fill needed to construct the taxilane. The Drainage Study indicates that the fill material needed for the taxilane construction can be excavated from areas to the east and west of the taxilane location (at the north end of the existing detention basin), which will result in more detention basin being created that connects to the current basin. Additional study will be required to further define the size/depth of the replace detention area. Exhibit 18 shows the maximum possible additional area that may be needed for replacement detention area. This includes approximately 1.0 acres of land identified as developable.

FACILITY CONCEPTS

As noted previously, facility development in any of the three Study Areas must be compatible with airport operations. Development within Study Areas 1 and 2 is planned to be aeronautical in nature, meaning those facilities will house aircraft that need access to the runway system. Development in Study Area 3 is considered for non-aeronautical uses. All facility development is to be undertaken by the private sector under a land lease arrangement with the Wichita Airport Authority.

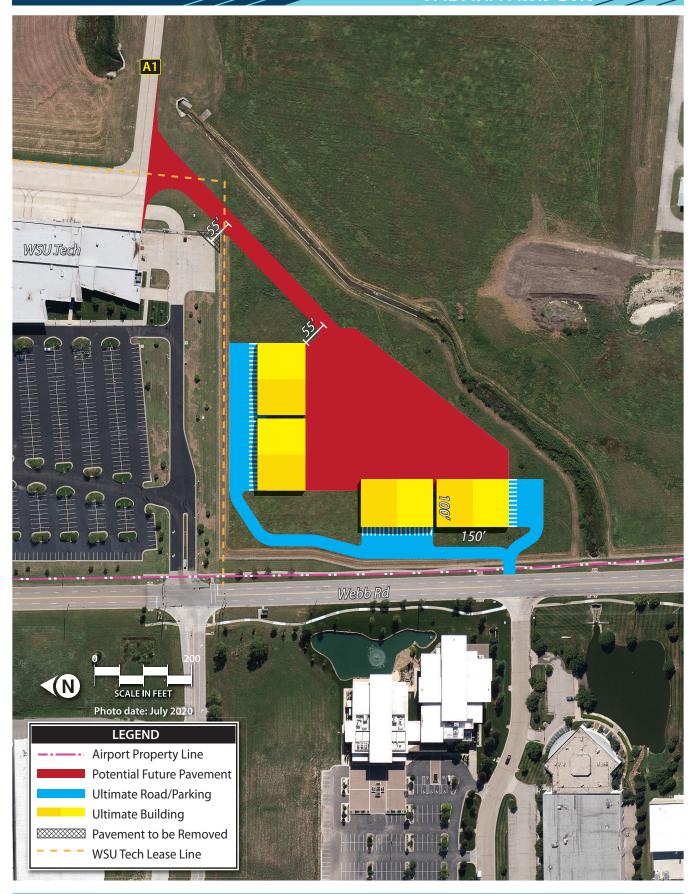
Several development concepts are presented below for each of the three Study Areas. These are only conceptual in nature and neither the airport nor a potential developer is obligated to build to the exact layout presented. Rather, the airport and/or developer should follow the facility layout concept to maximize the space available. Larger conventional hangars should be grouped together to best accommodate high activity uses. Smaller connected box hangars and T-hangars should be located further from the central conventional hangar complex. Apron space should be planned in the areas closest to the taxilane as these areas can accommodate parked aircraft but not buildings and hangars due to the restrictions of the imaginary surfaces surrounding the runway. Hangar aprons shall generally be no smaller than 1.5 times the square footage of the hangar bay according to the WAA Minimum Standards.

STUDY AREA 1 FACILITY CONCEPTS

Exhibit 19 – Area 1 Facility Layout Alternative 1 presents a concept for development by a single tenant in Study Area 1. If the development is a single tenant, then the construction of the taxilane would not be eligible for FAA funding as exclusive use taxilanes are not eligible for federal funding.

Exhibit 20 – Area 1 Facility Layout Alternative 2 presents a concept for development that would potentially serve multiple tenants. Under this scenario, the taxilane extension from Taxilane A1 would be eligible for federal funding because it would be a public taxilane. While there could be many potential hangar layouts, what is shown is a complex of four large conventional hangars. This has been a popular hangar type at Jabara, and each one could house, for example, an aeronautical business, a corporate flight department, bulk aircraft storage, or a single tenant.





STUDY AREA 2 FACILITY CONCEPTS

Study Area 2 presents an extremely rare opportunity for airport development. Study Area 2 is approximately 80 acres of developable aeronautical land. It is very rare that an airport with the capability of a 6,100-foot-long runway has an undeveloped parcel of this size. The availability of a parcel this size presents a unique opportunity for numerous aeronautical businesses such as aircraft manufacturers or maintenance, repair, overhaul (MRO). Both of these types of aeronautical businesses have large physical footprints. With Wichita being known as the Air Capital of the World due to the numerous aircraft manufacturers in the region, Jabara is well positioned to accommodate growth in this industry.

Exhibit 21 – Area 2 Facility Layout Alternative 1 considers a potential facility layout intended for a single tenant. It includes a large manufacturing building, several ancillary hangar buildings, and a large aircraft parking apron. The taxilane to Study Area 2 would be to a single user; therefore, it is not eligible for FAA funding.

Exhibit 22 – Area 2 Facility Layout Alternative 2 shows a potential hangar layout intended to serve multiple tenants. The layout includes a mix of conventional, box, and T-hangars. A large central apron area is bounded by several conventional hangars. This layout would be ideal for expanded or additional FBO services as well as other types of aeronautical businesses.

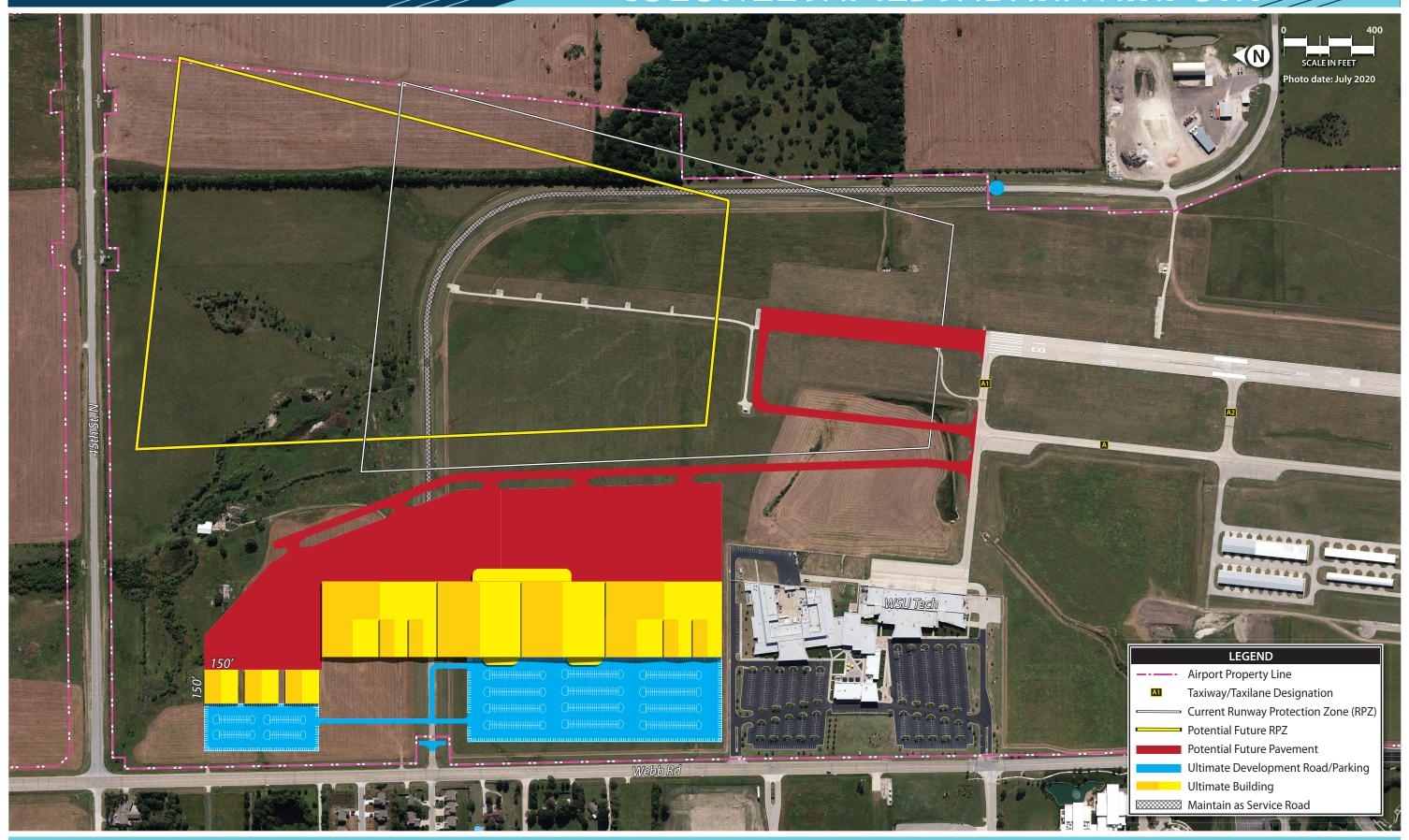
STUDY AREA 3 FACILITY CONCEPTS

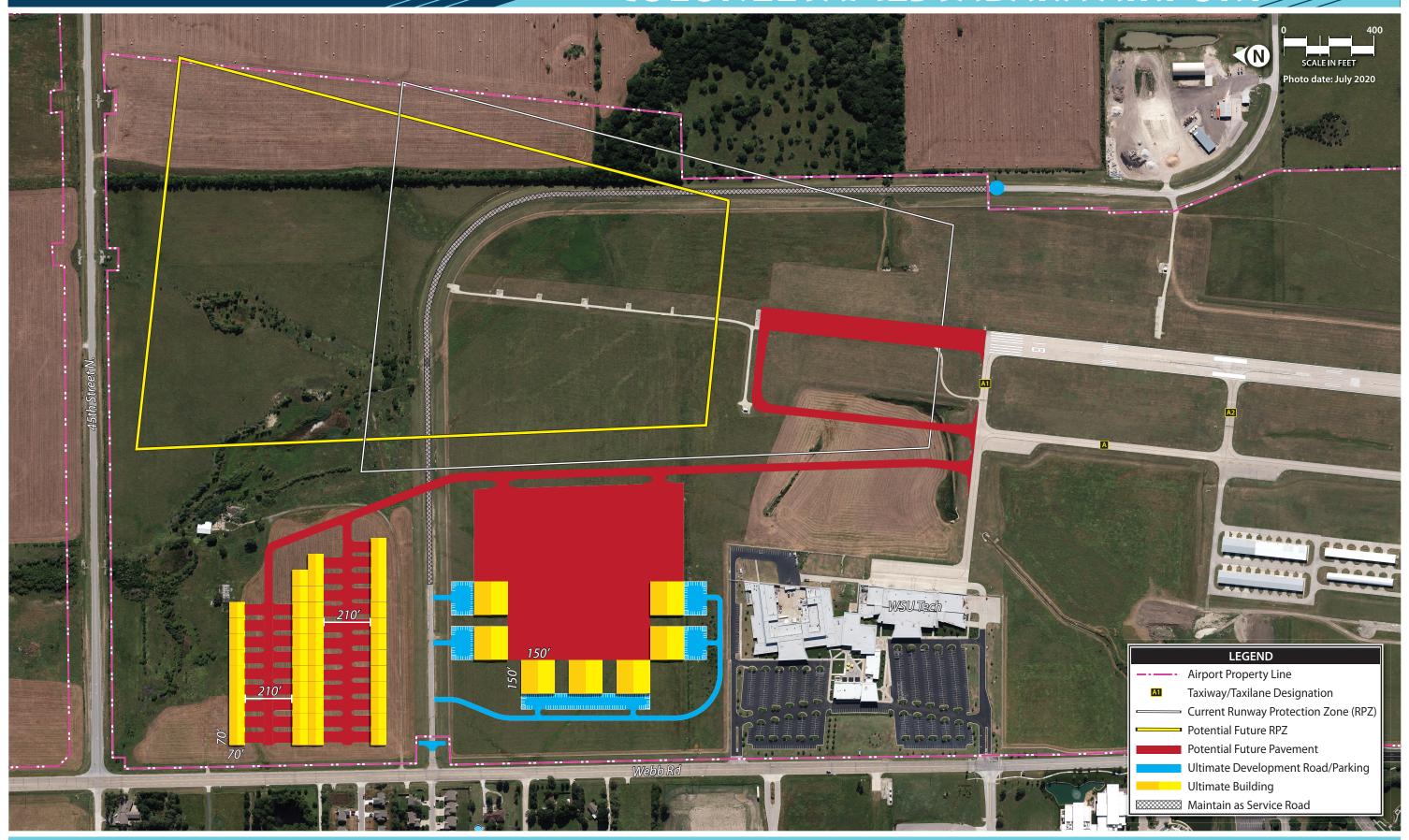
Study Area 3 is physically disconnected from the runway system by 45th Street North. Therefore, this land can be utilized by the airport for compatible nonaeronautical development. The airport will have to work with the FAA to obtain a formal release from obligation which will allow for non-aeronautical uses of the land. The land will remain in airport ownership, and any revenue generated through land leases will be reserved for use by the airport exclusively.

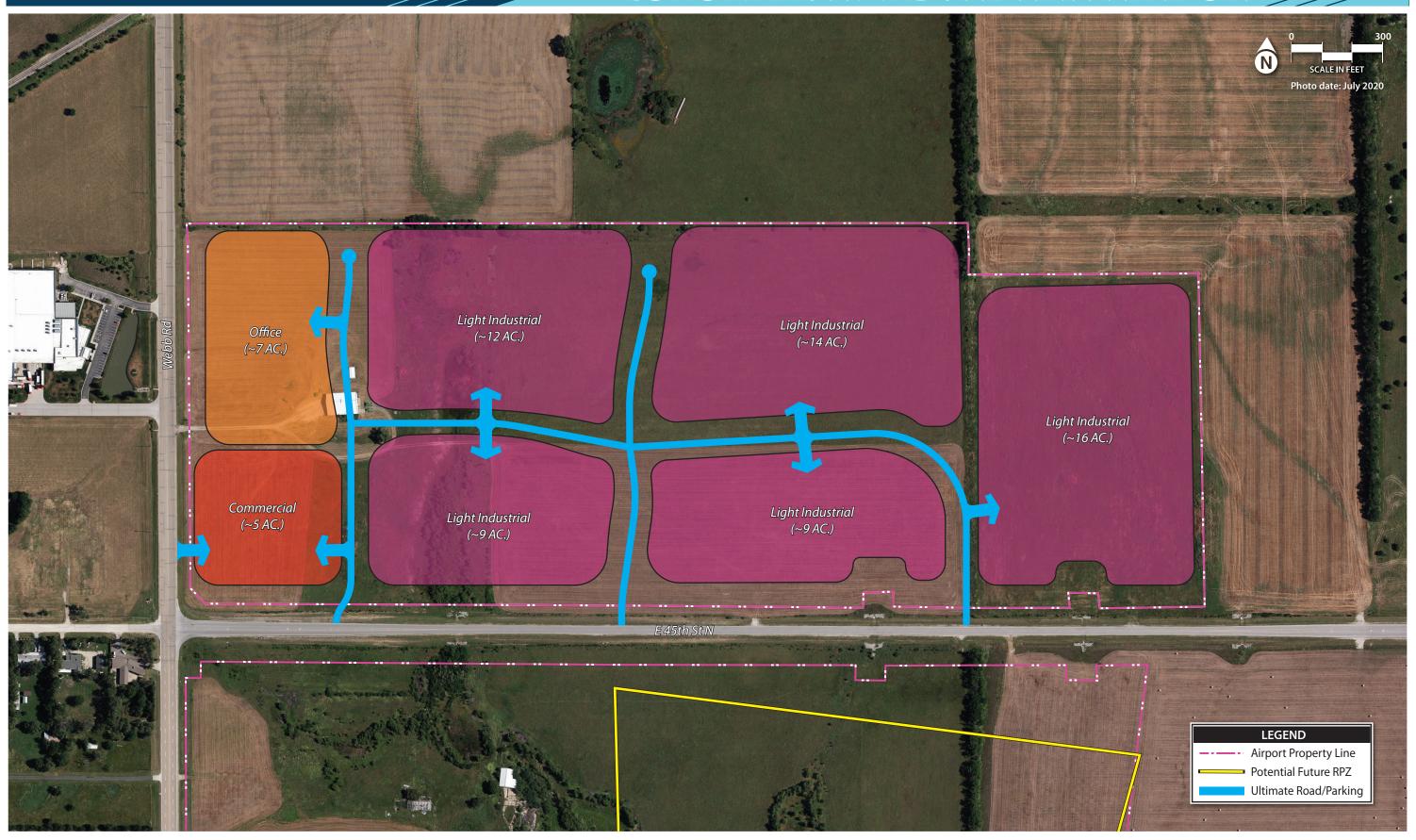
Exhibit 23 – Area 3 Facility Layout Alternative 1 considers a mix of commercial uses and light industrial uses, both of which are compatible with airport operations. The corner of 45th Street North and Webb Road is considered for the commercial parcel. The remaining land is considered for light industrial uses. Access to the light industrial parcel is from 45th Street North and via an internal roadway system.

Exhibit 24 – Area 3 Facility Layout Alternative 2 considers all the frontage on Webb Road for commercial uses. A slightly different roadway system is shown as well.

Area 3 is the closest to the Union Pacific Railroad line. It may be feasible to extend a railroad spur to Study Area 3 should a developer desire that access, however, it would have to cross private property.









ZONING AND BUILDING CODE EVALUATION

An important factor when considering land development is the current municipal zoning that applies to the land. Zoning is an indication of how the local municipality desires land to be developed in the future. However, there are limitations to the applicability of municipal zoning of a federally obligated airport, like Jabara. When any federally obligated airport accepts federal capital improvement grants, they agree, by contract, to maintain the airport free of incompatible land uses and to use the land for the preservation and improvement of the airport. Therefore, regardless of the municipal zoning of airport property, the airport must only support development that is compatible with the airport or risk not only future federal development grants but also the possibility of refunding past federal grants.

If a municipality has zoned airport land, it is most common to zone it as industrial, which is typically compatible with airport operations. Often, the zoning code includes an airport zone, which specifically describes allowable land uses, which are industrial in nature. Study Area 1 is zoned industrial. Study Area 2 south of the 43rd Street North alignment is also zoned industrial. Study Area 2 north of the 43rd Street North Alignment is zoned as low-density residential. That portion of Study Area 3 that is in the City of Wichita is zoned low-density residential, and the remaining portion in the City of Bel Aire is zoned agricultural. The airport staff is currently working to have the low-density residential and agricultural zoning designations changed to industrial. Nonetheless, the airport would not allow residential development on airport property because of the risk of violating the federal Grant Assurances to which they have agreed. **Exhibit 25 – Area Zoning** is a map showing the current zoning status of the airport environment.

Appendix B includes additional zoning information and the building code evaluation that was done as part of this study. It includes information related to the design and construction ordinances for both the City of Wichita and the City of Bel Aire. The current plat maps covering Study Areas 1 and 2 are included for reference. A portion of Study Area 2 has been platted, and Study Area 3 has not been platted.

UTILITY REPORT

Appendix C presents an analysis of the utility availability that would serve Study Areas 1, 2, and 3. This includes discussion of electricity, natural gas, communications lines, water distribution, and sanitary sewer.

TAXILANE EXTENSION COST ESTIMATES

Appendix D presents the cost estimates for the five taxilane extension alternatives. Table 2 summarizes the taxilane extension cost estimates.

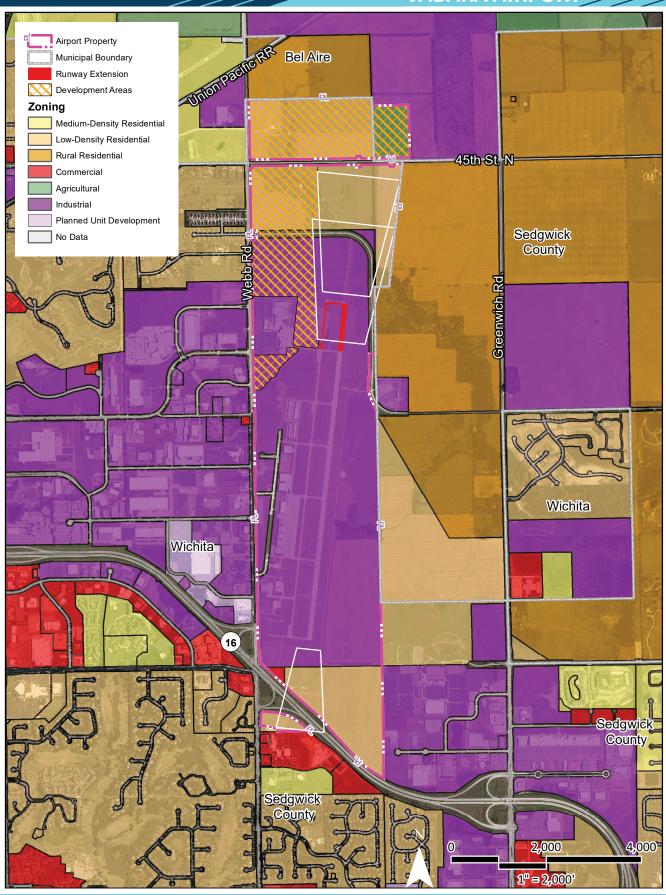


TABLE 2 | Taxilane Cost Estimates

Study Area	Alternative	Pavement Area (s.y.)	Net Fill Material (c.y.)	Cost Estimate
1	1	3,100	6,200	\$1,180,000
1	2	2,750	2,400	\$870,000
2	1	12,500	28,600	\$4,370,000
2	2	12,500	34,600	\$4,340,000
2	3	12,500	30,800	\$4,590,000
Source: Garver				

DRAINAGE ANALYSIS

Appendix E presents analysis of the drainage patterns and infrastructure impacting Study Areas 1, 2, and 3. Outlined are the stormwater and drainage improvement standards for the Cities of Wichita and Bel Aire. An analysis of the current FEMA floodplain is also presented. The drainage appendix indicates that the extension of a taxilane into Study Areas 1 and 2 would require expansion or construction of additional dry detention facilities to maintain peak discharges and to handle the additional total runoff volume in the developed condition.

The analysis indicates that development of that portion of Study Area 3 which discharges to the south (that area within the City of Wichita), will result in a decrease in peak discharges for all but the two-year return period, indicating that no major detention facilities would be required to meet the water quantity standard. Therefore, no additional dry detention would be required for development of that portion of Study Area 3 located within the City of Wichita. That portion of Study Area 3 that is in the City of Bel Aire discharges to the northeast. It would require additional detention to be developed due to the upstream location of the area within the catchment.

In addition, preservation of water quality will need to be addressed by any potential developer.

CONCLUSION

This study has been undertaken to examine three undeveloped parcel areas at the Colonel James Jabara Airport (AAO) in anticipation of marketing these parcels for aviation related, aeronautical and/or non-aeronautical development. The information collected for each Study Area parcel is intended to aid potential developers and airport administration, in understanding factors that may be considered when assessing potential development of the parcels.

Study Areas 1 and 2 are currently reserved for future aeronautical uses, and to that end, a taxilane is planned to be extended to each Area. Study Area 3 is physically separated from the airport by a public roadway; therefore, non-aeronautical land uses are considered. The study includes depictions of the planned taxilanes and volume calculations of fill material that would be required to support the taxilane. Several facility layout concepts are presented in this study which are indented to provide the airport and developers with a general idea of the type of desired development for each of the three areas.

Several appendices are included in this report which cover zoning, building codes, utilities, taxilane construction cost estimates, and drainage analysis.