

Airport Economic Development Study



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McKinney Economic Development Strategic Plan

Airport Economic Development Study

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Limiting Conditions

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Any estimates, conclusions, and projections contained in this report are included to assist the reader in understanding the uniqueness of the aviation industry. As assumptions are a necessary component of future projections, any assumptions made in this report are based on reasonable and prudent estimates. These estimates are, however, subject to unforeseen and unpredictable influences such as competition, local, regional, national, and global economies, fuel supply volatility, pricing and discounting, quality of management, supervision, and operating level employees, and the implementation of effective sales, marketing, and promotional programs. Therefore, actual outcomes may vary from the estimates, projections, and conclusions contained herein.

It is intended that this report be considered as a total product, the components of which must not be considered independently.

Compensation for preparing this report is not, in any manner, contingent upon conclusions suggested or drawn herein.

This report is made for the client to whom it is addressed and is delivered to the client on the condition that it is to be used by the client only for the purpose stated in the report. No reliance is to be placed on this report for any other purposes.

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Scope of Consultants Review

As noted in TIP Strategies scope of work proposal for the Economic Development Strategic Plan for the City of McKinney, emphasis was placed on understanding opportunities surrounding the Collin County Regional Airport. This included the following elements:

- ***Task 1***
 - Evaluation of land availability at the airport to support the full range of aviation and non-aviation activities during the life cycle of the development plan.
- ***Task 2***
 - Determination of compatible land use configurations on and immediately around the airport.
- ***Task 3***
 - Identification of appropriate areas adjacent to the airport designated for commercial and industrial uses.

During the initial discovery phase of this project, additional questions were revealed to this consultant and it was requested that they be included in the review process.

- ***Task 4***
 - The question regarding the viability of a second Fixed Base Operator (FBO) at the airport was raised. Requested to provide opinion on this issue. Review and subsequent findings are presented.

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Executive Summary

The Collin County Regional Airport provides enormous economic benefits and growth prospects for the City of McKinney. It is just one of many “*Front Doors*” to the region and should ultimately develop into one of the city’s more important employment and tax revenue centers.



The Collin County Regional Airport is ideally situated in a region that has and will continue to see strong population and economic growth. This growth will unquestionably present many opportunities for the City of McKinney to use the airport as a valuable marketing tool for the city as well as a tax revenue generating asset in its own right.

The City of McKinney, McKinney Airport Development Corporation and the Airport Administration have done an admirable job in promoting the airport, providing economic incentives, advancing the airports operational capabilities and enabling a vision aimed towards ensuring the airports growth. This approach and support must continue to be built upon to ensure the airports continued success well into the future.

Although there are numerous aviation related opportunities presented within the existing and future boundaries of the airport proper, the more important area of economic growth will be in the development of properties that are peripheral to the airport. While the majority of businesses that may chose to locate directly within the “Airport Boundaries” will tend to be aviation focused and will provide primarily opportunities for the development of hangars, aircraft maintenance facilities, etc. The lands immediately adjacent to the airport also provide the ability to broaden the neighborhood business base by introducing into them a mix of both direct aviation-support and non-aviation related businesses. The coherent development of the adjacent lands must be both attuned to the airport needs while also being attentive to community needs. This will ensure that the areas adjacent to the airport compliment not just the airport but dovetail nicely into the surrounding communities as well.

In short, the development of the properties adjacent to the airport must lend themselves to the up and coming business support needs of the airport. This future development may include office parks, aeronautical technology, light industrial, secondary educational facilities, hotel/motel, retail and other neighbor-friendly development opportunities that directly create local employment and generate tax revenues while not sacrificing the sense of community or the airport’s ability to add value to the city.

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Introduction

The purpose of this section is to present the economic development opportunities for the Collin County Regional Airport (CCRA) both in terms of its concept and rationale.

This section provides a description of the various factors and influences that were reviewed and will form the basis for determining the opportunities. The primary factors that could direct the economic development of the airport in the future include the anticipated amount and type of aviation activity, land use both on the airport and immediately adjacent to it, infrastructure enhancements and community needs.



In preparing the recommendations for the airport, several factors which influence how the airport will develop over the next two decades have been identified. These include but are not limited to:

- ➔ The airport is and will continue to be a vital component of the regional and national airport system. It is the primary general aviation airport serving the City of McKinney, Collin County and surrounding metropolitan areas of Allen, Frisco and Plano.
- ➔ As noted in the Collin County Regional Airport Land Use Plan Study prepared by KSA Engineers and Coffman Associates, future demand at the airport will principally consist of general aviation activity and as such, any future planning should be geared to accommodate this demand as it should be considered the most appropriate use of the existing and future airport assets.
- ➔ The airport enhances the economic vitality of the county by providing general aviation airport services to Collin County businesses and residents and serving as a one of the prime gateways to the City of McKinney and Collin County.
- ➔ The Collin County Regional Airport currently generates an estimated \$80 million in both direct and indirect economic impact and over \$3 million in certified tax revenues annually. These are anticipated to grow both as future growth of the airport and overall economic climate improves.
- ➔ The airport is fortunate in currently being surrounded by "green-field" and is not landlocked by existing development. The significant quantity of undeveloped land on or adjacent to the airport that could accommodate future development provides the airport at this juncture with the flexibility in finding the best use for this resource.
- ➔ Any future development at or adjacent to the airport must be sensitive to and responsive to not only local and regional aviation demands but to ensuring that any future planned development of the areas adjacent to the airport compliment

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any overall community development plans as well as meet the needs of the immediate neighborhoods.

- Finally, any future development plans must be flexible enough to allow Airport and City Management the ability to adapt to changing aviation, commercial business, economic and community demands.

As an extension to the existing Airport Land Use Plan Study prepared by KSA Engineers and Coffman Associates, it is intended that this report be used as a complimentary instrument by both City and Airport Management groups in reviewing and directing the future use and economic development of land on and adjacent to the airport.

As with any planning process and as outlined in the previously mentioned Airport Land Use Plan Study, considerations of the airports anticipated demand and the quantity of on-airport and airport adjacent land dictates that each parcel of airport related property which could directly support related and complementary aviation use should be programmed for that potential.

The justification for development of any specific parcel of land whether for aviation or aviation related use must include a favorable analysis of it financial merits and ability to lessen possible adverse effects on the communities surrounding the airport.

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General Aviation Marketplace-Present Activity

The 2008 onset of the economic downturn considerably weakened both the commercial aviation and the general aviation industries. However, in 2009 the deterioration of the general aviation marketplace was even more pronounced with record declines in several key indicators.

According to numbers released by the General Aviation Manufacturers Association (GAMA), U.S. manufacturers of general aviation aircraft delivered 48% fewer aircraft in 2009 than in 2008. This was the second successive year of decline in deliveries that was preceded by four years of continuous growth. Both piston and jet powered deliveries declined around 50% in CY 2009 with the net market value declining around \$9 billion compared with 2008 and was the first reported decline since 2003.

The general aviation products and services market also declined sharply for the 2nd year in a row in 2009. Aviation products and services market declined 48% percent compared to 2008. The decline in products and services is a direct reflection of the downturn in both the U.S. and world economies, as well as the reduction in aircraft flight hours and aircraft deliveries.

While the latest FAA assumptions about fleet attrition and aircraft utilization along with GAMA aircraft shipment statistics estimate the active general aviation fleet to have increased 0.2 percent in 2009, overall general aviation flight hours were estimated to have decreased 10% percent in 2009 to 23.3 million.

Along with the fall in aircraft deliveries, products shipments and services billings, general aviation activity at FAA and contract tower airports fell roughly 12% percent in 2009, one of the largest one year declines ever reported.

General Aviation Marketplace-Forecast

It is the FAA's assumption that despite the current global economic conditions, general aviation will continue to grow over the long term. However, the level of activity and demand in the long term is not expected to rebound to levels previously published in FAA forecasts.

Since 2007, general aviation has dealt with the consequences of unfavorable media and public perception, record high fuel prices and the most serious downturn being the current recession. This recent recession has led to an erosion of wealth, high unemployment, declining corporate budgets and tightfisted consumers, all of which contributed to a softening of the overall aviation marketplace.

While the downturn in the economy may have dampened the near-term outlook for the general aviation industry, the FAA's long-term outlook remains quite favorable. It is anticipating growth in general aviation demand over the long term that will be fueled by a growing global economy. Over the next 20 years, the FAA is projecting an approximate 1% annualized growth in the number of aircraft being delivered and operated. As the general aviation fleet grows, the number of general aviation hours flown is projected to increase an average of 2.5% annually through the year 2030.

"Business aircraft can make a substantial difference in how a company performs its mission, in many cases generating significant gains in the drivers of shareholder value."- NBAA

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Collin County Regional Airport Marketplace

Total operations at the Collin County Regional Airport have for the past two years declined considerably from the peak recorded operational levels noted in 2008. Overall operations at the airport have declined approximately 41% since 2008 and are estimated to finish 2010 at fewer than 70,000 operations. The majority of this loss can be directly attributed to the recent economic recession, among other things.

Collin County Regional Airport

Itinerant					Local			Total Operations	Change
KTKI CY	Air Taxi	General Aviation	Military	Total	Civil	Military	Total		
2006	578	33,837	57	34,472	71,715	24	71,739	106,211	
2007	906	30,449	94	31,449	64,437	34	64,471	95,920	-9.7%
2008	7,143	32,903	20	40,066	76,185	4	76,189	116,255	21.2%
2009	1,132	27,631	41	28,804	56,752	24	56,776	85,580	-26.4%
2010	1,056	22,245	62	23,362	44,014	314	44,328	67,690	-20.9%

2010 Projected from ATAD data thru July 31, 2010

ATADS : Airport Operations : Standard Report

Although the recent economic recession has had a marked effect on the Collin County Regional Airport general aviation marketplace, it additionally has had a very significant effect on the other major reliever airports that serve the North Texas region.

Since 2008, when annual aircraft traffic for the North Texas reliever airports was recorded at 855,895 operations, there has been a continual downward trend in the number of general aviation operations at these airports. Based on data derived from the FAA's Air Traffic Activity Data System (ATADS) reports encompassing the years 2008 through 2010 (projected from data thru July) it is anticipated that the North Texas region will experience an overall decline in general aviation operations at an estimated 41% compared to 2008.

It should be noted that with the exception of the Denton Municipal Airport, all the other airports in the North Texas region saw operational declines in the 40%-50% range. However, Collin County Regional Airport (KTKI) saw a lowest loss of traffic when compared to the remainder of the airports in the region and less than its two closest direct competitors those being specifically Dallas Love Field and Addison Airport.

Airport Identifier Code	Airport Name	Itinerant Change 2008 to 2010	Local Change 2008 to 2010	Change 2008 to 2010
TKI	Collin County Regional Airport	-41.7%	-41.8%	-41.8%
ADS	Addison Airport	-36.4%	-75.1%	-43.0%
DAL	Dallas-Love Field	-44.8%	-100.0%	-44.8%
DTO	Denton Municipal	-8.8%	-8.8%	-8.8%
FTW	Ft. Worth Meacham	-40.7%	-60.9%	-49.2%
GKY	Arlington Municipal	-50.8%	-45.2%	-48.6%
RBD	Dallas Executive	-39.2%	-60.1%	-53.4%
Region		-39.5%	-43.0%	-41.0%

Of special interest is the decline in the level of operations noted in the "Local Operations" category. While the Collin County Regional Airport has seen a decline in local traffic almost equal to the decline it has seen in transient operations, its closest direct competitor Addison Airport has seen a very significant loss in local traffic. Additionally, Dallas Love Field has also seen a larger percentage of loss in Itinerant operations than the Collin County Regional Airport.

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The Airport's Identity

The Collin County Regional Airport facility is currently rated as a Reliever Airport, as designated by the FAA.

Reliever airports are those airports designated by the FAA to relieve congestion at commercial service airports and to provide improved general aviation access to the overall community. Aviation activity at reliever airport's range from small single engine piston-powered aircraft to business jets to military activity.

As a reliever airport, Collin County Regional Airport serves as an alternative for general aviation activities so that the regional commercial service airports such as Dallas Love Field and Dallas/Fort Worth International do not become capacity constrained.

In its aeronautical function, the Collin County Regional Airport is the primary general aviation airport serving the City of McKinney and surrounding metropolitan areas of Allen, Frisco and Plano.



General Aviation and Business aircraft typically fly in and out of reliever airports and there are thousands of reliever airports across the U.S., most having shared characteristics that make them favorable to business aircraft operators:

- ➔ They are located away from congested airline hubs;
- ➔ The runways and other facilities are designed for use by business aircraft operators; and
- ➔ They typically are closer to the passenger's final destination, saving time.

In a competitive business environment, companies must maximize the use of their two most important assets – people and time. Studies have shown that use of reliever airports like the Collin County Regional Airport by General Aviation and Business aircraft allows for higher personnel productivity and more efficient staff utilization when workers are traveling.

An extremely large percentage of business aircraft operators are small to mid-size companies using only one airplane and more than 80% of the business aircraft fleet is composed of propeller-driven planes, helicopters and small jets, most of which carry four to eight passengers on short flights of two hours or less.

As noted in the Collin County Regional Airport Land Use Plan Study prepared by KSA Engineers and Coffman Associates, future aviation demand at the airport will primarily remain general aviation focused. To a large degree, demand will dictate future development at the airport. However, this demand should be considered the highest and best use of the existing airport assets as the airport is positioned ideally to serve this role.

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Collin County Regional Airport SWOT Analysis

Based on observations of various reports and documents, airport physical layout, review of traffic history as well as discussions with city individuals, airport tenants and industry professionals, a SWOT analysis was performed to determine the strengths, weaknesses, opportunities and threats relative to the airport in today's economic, operational and political climate.



Strengths

- Location
 - Close proximity to Dallas metropolitan area
 - Within the 6th most populous county in Texas
 - Ranked #5 on Money's 2010 Best Places to Live
- Infrastructure
 - Existing runway capable of supporting aircraft up to B-737
 - New runway construction in progress
 - New control tower under construction
 - Airport security & perimeter access control systems in place
 - Utilities on west side of airport are in place for future development
 - Excellent FBO providing facilities necessary to support aircraft activity
- Accessibility
 - Airspace approach and departure relatively uncomplicated.
 - No commercial aviation congestion as found at region's larger airports.
 - Roadway accessibility – Hwy 5, SH 121, US 75 and US 380
 - Close proximity to McKinney business districts
- Green Field Condition
 - Airport is not landlocked, ample aviation clear zones
 - Room for expansion of airfield and internal assets
 - Land for development of periphery airport zones
- Political Support & Leadership
 - City Government & Council Members are "Airport Friendly"
 - Great track record of support from TXDot, FAA
 - "Can do" attitude & support from MEDC, MADC
 - Incentive oriented, visionary Council and MADC Board Members
- Economic
 - Large based aircraft population of two "vested" Hangar Owner Assns.
 - Several key Corporate Flight Department "Anchor Tenants"
 - Taxes generally lower than those found at surrounding Metro airports
 - Generates an estimated \$80 million in both direct and indirect economic impact
 - Generates over \$3 million in certified tax revenues annually
 - FAA-designated General Aviation Reliever Airport makes airport eligible for FAA Reliever Airport grant funding.

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Weaknesses

- Infrastructure
 - Current single runway
 - Lack of significant infrastructure on east side of airport
 - Ongoing roadway construction - Hwy 5, SH 121, US 75 and US 380
 - Lack of Self-Fueling capability
 - Lack of second FBO, competitive pricing, high fuel costs
 - Tight security limits public access, provides negative public image
 - Lack of on-field aeronautical/aviation support businesses
 - On-going airfield construction
 - Lack of aviation support industries, i.e.: catering, maintenance, etc.
- Location
 - Proximity of other airports (ADS & DAL) and competition for traffic
 - Distance from Dallas core downtown corporations/Exec's homes
 - Noise-sensitive residential communities located south of the Airport
- Land acquisition
 - Requires land acquisition for future major expansion
 - Concerns related to acquiring surrounding land
 - On going concerns related to on-airport potential asset acquisition
- Economic
 - Minimal aviation related/support development around airport.
 - Closing of McKinney Aerospace leaves large aviation facility vacant.
 - Reduction in aviation related flight activity
 - Slow recovery of the national economy
 - Increased competition from DFW, DAL and ADS airports for general aviation, airline, air cargo and aviation related industrial activity and dollars

Opportunities

- Infrastructure
 - Concept plan in place that outlines runway and taxiway improvements and on-field support structure for aviation users
 - Runway and tower projects will enhance capacity and safety
 - Improve Eldorado & Industrial roadway conditions & appearances
 - Provide FBO Self Fueling Facility
 - Explore possibilities of direct highway access to airport
- Accessibility
 - Traffic accessibility improves with completion of SH 121 & US 75 expansions
 - Proposed extension of FM 2933 will open eastside of airport to development
 - Current relocation of FM 546 enables future runway expansion to south
 - Possible future DART connection
- Education
 - Educate residents about the airport and what it has done for the community
 - City Staff Members could be better attuned to understanding the corporate community's needs, as many are going through hard economic times.
 - Develop community outreach programs to foster good relations with nearby communities.

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- Discuss with MISD an airport based education program that uses aviation to promote academic and vocational learning while encouraging career exploration in aviation related industries
- Forge alliances with higher education entities such as the University Aviation Association, University of North Texas & Texas A&M.
- Look at Aviation Technology Corridor concept and possibilities.
- **Economic**
 - Continued marketing pressure on attracting corporate (JC Penney, Frito Lay, etc.), business and private aircraft operators.
 - Consider establishing a separate "Airport Development Zone" or "Airport Enterprise Zone".
 - Provide availability of customized workforce training that is free to businesses through reimbursement for locating jobs in airport zone while creating employment opportunities for residents in neighboring community.
 - Develop and promote event-oriented activities that would draw aircraft owners & operators to the city i.e.; pro-golf tournaments, classic auto & air shows, equestrian events, etc.
 - Review airport Minimum Operating Standards to make it easier for development of new aeronautical services, i.e.: FBO, A&P, Avionics shops.
 - Proactively recruit aviation support service companies and aircraft component manufacturers and distributors.
 - Research partnering with alternate fuel aircraft modification companies
 - Examine possibility of closure of ADS for runway construction and aggressively market ADS tenants to relocate.

Threats

- **Economic**
 - Continued sluggish economy
 - High aviation fuel costs
 - Downturns in aircraft manufacturing and support industries
 - Scale back of flight operations
 - Loss of direct and indirect aviation related employment
 - Marked reductions in recreational flying and pilot training activities
- **Competition**
 - DFW launched \$3 million project to boost the airport's GA business
 - Arlington Municipal Airport constructing a \$4.9 million GA terminal
 - KTKI, KADS and KDAL all fighting for the same customers.
- **Environmental & Security Issues**
 - Over flight of noise-sensitive residential communities located near the Airport.
 - Unsubstantiated air and water related quality concerns
 - Increased Homeland Security constraints
 - Possible loss of 100 octane aviation gas due to EPA concerns
- **Perception**
 - Unfavorable depiction and treatment of General Aviation in the media
 - Airport too far from Dallas business core, long commute to get here
 - Operators tend to go to airports where the "action" and services are.
 - Empty McKinney Aerospace Hangar & office building
 - No hangar waiting list and vacant hangar space, "what's wrong?"

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Task 1 - Evaluation of Land Availability

- **Evaluation of land availability at the airport to support the full range of aviation and non-aviation activities during the life cycle of the development plan.**

For discussion purposes, airport properties are normally divided into two generally accepted use categories: *Airside areas* and *Landside areas*.

Airside areas include all areas accessible to and necessary for safe aircraft operations, including runways, taxiways, ramps and clear zones. Landside areas would include aviation support facilities such as FBO's, hangars, fuel tank farms, public parking areas, public access roads and commercial structures on airport owned property. Access from landside areas to airside areas is normally very controlled at most airports and is generally separated by security fencing and limited personnel access.



Airside Areas - In the Collin County Regional Airport Land Use Plan Study prepared by KSA Engineers and Coffman Associates, a large majority of the airports future airside land needs; infrastructure and development considerations have been addressed through several different scenarios.

Included in the report were considerations for future Airside improvements such as Runways, Taxiways and Aircraft Parking Ramps. Additionally taken into account were considerations for Runway Safety Areas, Object Free Areas, Runway Protection Zones, Airfield Paving and Building Areas located both within and immediately adjacent to the existing airport property line. While the uses noted above are conducive to the safety and efficiency of aircraft flight operations and necessary for the operation of the airport, they do not directly lend themselves to commercial or economic development due to restrictions related to building or structure height, uses which may attract large concentrations of birds, emit smoke, or which may otherwise affect safe air navigation and associated activities that would create hazards for landing and taking off aircraft.

As noted in FAA Advisory Circular 150/5300-13, Airport Design, there are recommendations for standard widths, minimum clearances, and other dimensional criteria for runways, taxiways, safety areas, aircraft parking areas, and other physical airport facilities and the following safety setbacks must be taken into consideration when determining any type of Airside development.

- ➔ **Runway Safety Area (RSA).** The Runway Safety Area is a defined surface that surrounds the runway, in order to reduce the risk of aircraft damage in the event of an overshoot, undershoot, or deviation from the runway.

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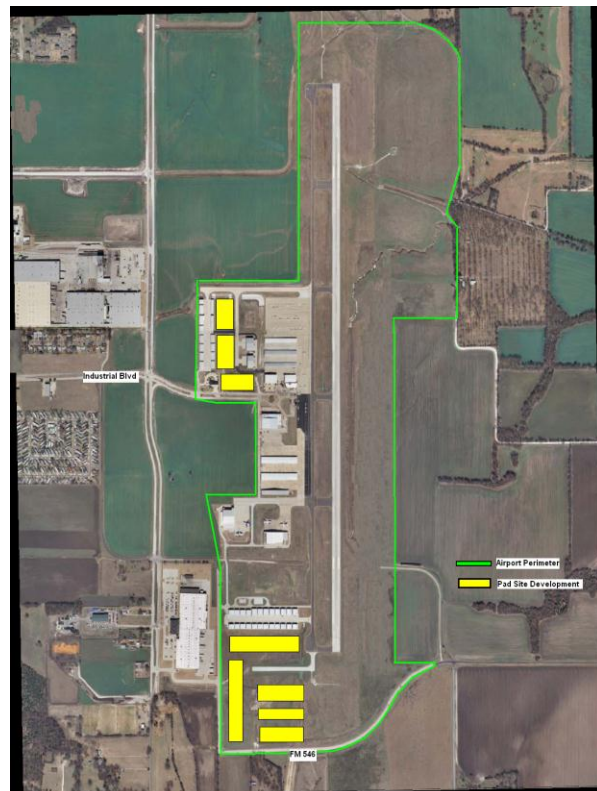
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- ➔ **Obstacle Free Zone (OFZ).** The Obstacle Free Zone is the airspace up to 150 feet above the Airport's established elevation along the runway and extended runway centerline that provides clearance protection for aircraft on a missed approach, landing, or taking off from the runway. The OFZ is required to be clear of all objects. In this case, the lateral setbacks for the OFZ are the same as for the Building Restriction Line described below.
- ➔ **Runway Protection Zone (RPZ).** The function of the Runway Protection Zone is to enhance the protection of people and property on the ground beyond the end of runways. This is achieved through airport control of the RPZ areas. The RPZ is trapezoidal in shape, centered about the extended runway centerline, and begins 200 feet beyond the end of the area usable for takeoff or landing. The RPZ dimensions are functions of the type of aircraft and approach visibility minimums associated with each runway end.
- ➔ **Object Free Area (OFA).** The Object Free Area is an area on the ground centered on taxi lane, taxiway, or runway centerline that improves the safety of aircraft operations by having the area clear of objects.
- ➔ **Building Restriction Line (BRL).** The Building Restriction Line is a line set back from the runway centerline that identifies suitable building area locations.

As defined and identified in the Airport Land Use Plan Study, several options were provided that examined the airport's proposed future layout plans. These plans have taken into account the recommended dimensions needed to provide adequate safety zones to meet current and anticipated future FAA requirements. Subsequently, these land areas become totally subject to those administrative requirements imposed and in essence, any new runway added to the airport will dictate that the corresponding land requirements to ensure safe operations be met. In short, the land requirements airside are driven by the airside infrastructure being planned.

Landside Areas – In the referenced report, Landside tracts located outside of the safety zones were subjected to further review to determine prospective development uses and opportunities. Again, landside areas being those land areas on airport property that are outside of areas reserved for runway, taxiway, ramp and safety clear zones.

Within its current airport boundary foot print, the Collin County Regional Airport has delineated several pad lease sites located on the west side of the airport. These potential pad development areas encompass a large portion of the existing available land within the airports current boundaries. While a majority of the pad sites appear fixed due to existing taxi-lanes and clearance zones, it is assumed that should a potential business or developer come



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along that is a “right fit” for the airport; the existing pad site plans could be altered to fit the needs of that prospective developer.

Within these landside tracts, the most common forms of development will be those directly interrelated to the airports business environment. General aviation aircraft operations and aviation activity at the airport will drive the majority of demand for the following types of services and hence the requirements of the landside planning activities:

- | | |
|--------------------------------|------------------------------|
| → Fuel sales and line services | → Aircraft sales |
| → Aircraft maintenance | → Charter air services |
| → Hangar and tie down services | → Flight base operations |
| → Flight training | → Food and catering services |

Available landside tracts may also provide space for businesses related to major aircraft work and aircraft equipment that would appeal to businesses other than those directly engaged in flight operations. These businesses could include:

- | | |
|--|-----------------------------------|
| → Major airframe repair station | → Aircraft restoration services |
| → Avionics sales, installation, repair | → Aircraft interior shops |
| → Major power plant overhaul | → Aircraft parts distribution and |
| → Aircraft completion centers | logistics center. |

In addition to businesses tied directly to aircraft services, maintenance and flight operations, there are other types of businesses that have a minimal amount of their respective actual business related to aircraft or flight operations that may possibly wish to locate at the airport for various other reasons, such as:

- Desire to locate at the airport as their business operations are supported by flight activities or,
- The business owner is a pilot who wants to be located at an airport or,
- The business gains visibility in the eye of the customer by being located at an airport or,
- Real estate zoning, price and developed infrastructure offer a competitive advantage for their business.

At first glimpse, it may appear that there is currently a large amount of undeveloped land located within the airports perimeter. While this amount of vacant land may appear to be sufficient for future use, one must keep in mind that any long term development planning of the airport would be tied directly to the demands being placed on it.

This becomes quite evident when one looks at CCRA’s two major competing airports; Dallas Love Field and Addison Airport. When both airports were initially developed, they were basically “green field” facilities and the demand for development was not anticipated to outstrip the amounts of land allocated for airport development. While both airports have been in operation considerably longer than the Collin County Regional Airport, both airports are prime examples of how demand has exceeded its supply. Both airports subsequently have literally become “landlocked” with negligible land available that would lend itself to any future development plans.

With this in mind, the City of McKinney and the Collin County Regional Airport have considered several land acquisition and development options presented in the

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previously noted Airport Land Use Plan Study. These options range from "ALTERNATIVE 1", which suggests the acquisition of 477 acres of additional land of which approximately 250 acres would be for future landside development to "ALTERNATIVE 4" where over 1,611 acres of land denoted for both airside and landside development would be acquired and added to the airports current foot print.

However, KSA Engineers and Coffman Associates recommended that their "ALTERNATIVE 3" Land Use Plan Study was the best option for future growth and development potential and it is believed that the City of McKinney and the Collin County Regional Airport have agreed with this "Recommended Concept" option.

A review of this "*Recommended Concept*" illustrates that a large majority of the land acquisition proposed in this concept is located on the east side of the airport. The majority of this proposed acquisition would be utilized to support aviation traffic in the form of commercial passenger and air cargo operations. The land acquisition presented in the concept would additionally include enough land for a second parallel runway with the remainder of the planned East Side land acquisition set aside for Runway Protection Zones, additional General Aviation hangars and aviation support facilities. Land on the West Side of the airport would be acquired to provide real estate for future development of additional General Aviation related facilities.

In today's economic environment, it has become extremely difficult to justify the acquisition of the additional real estate necessary to enhance the airports capacity for future development. This is especially true when one considers:

- The current stagnation of the general and commercial aviation markets;
- Direct decline in aviation traffic operations at KTKI;
- Existing large plots of undeveloped land available within the airports boundary;
- The vacant McKinney Aerospace facilities;
- Overall lack of demand for hangar space and hangar development

Notwithstanding, plans for future land acquisition should not be limited by what is occurring in today's economy or by the sluggishness in the aviation operating arena. To be good stewards of future development of the airport, the land acquisition process must stay focused on the airport's long term goals. Maintaining this focus will be necessary to:

- Obtain the necessary land before it is developed for other uses;
- Help to prevent the airport from becoming land locked;
- Obtain the land at today's pricing, while still "reasonably priced"

However, any speculative acquisition of land for future airport development should be carefully thought through and researched as it is questionable as to whether Federal or State funding would be available for reimbursement of the acquisition costs, especially when one considers the current surplus of undeveloped "on-airport" property.

Should the City of McKinney and the CCRA consider adopting the "*Recommended Concept*" land acquisition option presented in the Land Use Plan Study there are however, several considerations noted below that should be reviewed prior to proceeding with any acquisition plans.

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- West Side Development - In the "*Recommended Concept*" land acquisition option, KSA Engineers and Coffman Associates recommend that the airport acquire property up to the edge of Airport Road, though not all of this property may be needed for future growth.

It is opinioned that while a majority of the land denoted in the "*Recommended Concept*" could possibly be a valuable asset for the airport, it is questionable whether a large portion of this real estate would be best suited for aeronautical related activities such as aircraft hangars or aviation support facilities. Development of this real estate for aeronautical use would literally push the airport's western boundary directly up to Airport



Road, essentially eliminating any buffer between it and the commercial development zone immediately across the street. While the property immediately across Airport Road from the proposed airport acquisition is presently undeveloped, locating certain aeronautical activities directly east and across the street from this property could possibly lead to future issues of noise, visual detracton and security issues.

Additionally, as the airport and adjacent area are developed, there will be a need to provide certain parcels of prime real estate with good road frontage in very close proximity to the airport that can be utilized for both airport and community support businesses providing goods and services to the area while serving as a buffer for the airport. It is conceivable that an airport boundary set-back of 300-350 feet from Airport Road would provide the ability to locate businesses along the valuable road frontage while still allowing expansion of the airport foot print to support future hangar or aeronautical business development.

If future real estate acquisition along Airport Road is planned in this fashion, it would leave the more valuable road frontage available for private development while assisting the airport in obtaining in most probability lower cost real estate immediately adjacent to the existing airport boundary. This would provide the airport with the additional land it needs for expansion, maintain a security and operational buffer from the commercial property zone across Airport Road, while providing the owner of the road frontage property with the ability to sell and/or develop the property at prime prices, while maintaining tax revenue opportunities for the City of McKinney.

- East Side Development - The East Side land acquisition option noted in the "*Recommended Concept*" has been presented to include the acquisition of numerous parcels of real estate to support future development of a parallel runway, taxiway system and associated Runway Safety Areas that comply with FAA Airport Design criteria as well as the acquisition of several large land parcels to support primarily commercial aviation operations (passenger & air freight

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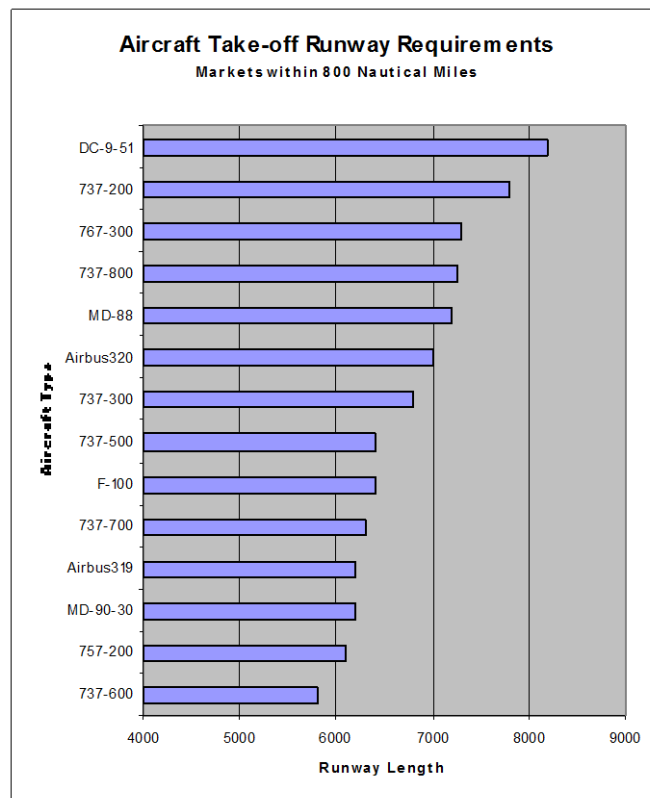
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terminals) and secondly aviation support related facilities such as additional ARFF, fuel facilities and general aviation hangars.

It is opinioned that any future land acquisitions on the East Side of the airport will need to take into consideration the alignment, development and construction of the proposed extension to FM 2933. The construction of the FM 2933 extension will open up to development an extremely large tract of land to the east of airport. It will be extremely important to take this roadway project into consideration during the acquisition evaluation process. Once the road extension alignment and development plans are in place, real estate values (prices) in this area will inevitably increase as will future development plans for the area.

With the potential alignment and development of FM 2933, the City of McKinney and CCRA will undoubtedly need to face the issues of acquiring land for future airport development in an expedited fashion to forestall paying higher real estate pricing and possible encroachment of future non-airport development while trying to balance the justification for acquiring the land with no immediate short term return on investment for the airport or city. With no immediate commercial or general aviation development candidates on the horizon, and no guarantees of reimbursement by Federal or State grant monies, the East Side land acquisition will truthfully be a complicated process as well as difficult acquisition to justify.

- Proposed Parallel Runway - In the "*Recommended Concept*" option, KSA Engineers and Coffman Associates have recommended the location of a proposed secondary runway (17L-35R) located east of and parallel to Runway 17R-35L which is currently under construction. This secondary runway would have a planned length of 6,000 feet and a width of 100 feet. This second runway would be located closest to the proposed commercial airline terminal and air freight facilities. While the proposed second parallel runway would be capable of supporting take-off operations of smaller commercial aircraft up to B737-600, the runway would not be capable of supporting on a normal basis a large majority of the commercial aircraft that are in operation today. This limitation would require that most commercial aircraft larger than a B737-600 would be limited to using the new runway that is currently under construction. To reach the runway from the proposed East Side commercial aviation terminal would require any commercial traffic assigned to use the runway currently under construction (17R-35L) to taxi westbound, hold



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short of the proposed parallel runway until cross-taxi clearance is provided, then taxi across the proposed runway to the taxi-way and the runway threshold for departure. Similarly, commercial aviation traffic assigned to and arriving on the new runway would have to reverse the cross-taxi process to access the commercial ramp area.

Conversely, any general aviation traffic that would be required to use the proposed parallel runway would then have to taxi in the reverse direction, hold short of the new runway (17R-35L) until cross-taxi clearance is provided, then taxi on to the respective FBO or hangar complex.

This cross-runway-taxi process not only serves to create congestion, limiting airfield operational effectiveness; it poses increased potential risks of possible runway incursions from traffic needing to cross-transit the field to get to their respective ramp areas. Any future runway extension projects and future location of potential commercial operations must be given thorough review to ensure airfield operational safety and efficiency considerations are taken into the equation.

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Task 2 - Compatible Land Use

→ **Determination of compatible land use configurations on and immediately around the airport.**

Determination of compatible land use is one of the prime objectives of a good landside development plan. The ability to allocate development sites for various uses both on and off the airport that dovetail with the surrounding community and the city's master plan must take into consideration the airport's forecast demand, its ultimate intended function and any other airside infrastructure development and obstruction criteria.



While the airport's future role will most likely be geared towards supporting general aviation activity, as well as taking certain commercial aviation activities into account in the distant future, it should be the ultimate mission of the City and Airport to provide the community with a mixed-use aviation facility that compliments and supports the surrounding community.

The airport should continue its marketing efforts towards development of its real estate located within the airport perimeter line; however landside development considerations for the future should also continue to include the prospects for additional aircraft parking aprons, hangar development areas, aeronautical services, commercial air terminal, air cargo facilities, vehicle access and parking, along with non-aviation uses that provide direct support to businesses and people within the airport and community.

As previously acknowledged, aviation demand will play a significant role in defining the actual use of land on and immediately around the airport. As the airport currently serves as a Reliever Airport, future demand at the airport will principally consist of general aviation activity and as such, any future planning should be geared to accommodate this demand as it should be considered the most appropriate use of the existing and future airport assets.

Unfortunately, the recent economic decline has resulted in reduced flight activity levels at the airport. Currently, there is minimal demand for general aviation facilities such aircraft hangars, a second FBO, direct or indirect aviation related support businesses.

To further illustrate this, a review of hangar demand at the airport revealed that the FBO currently has several box-type and T-hangars available for lease. Additionally, there are several other hangars in the HOA's (hangar owners associations) that are for sale or lease as well as the vacant McKinney Aerospace facility. This level of vacancy coupled with minimal interest in developing airport hangar pads for private or corporate use, paints a gloomy picture indeed.

Likewise, demand for aeronautical support services has diminished in relation to the down turn in the market. Businesses that provide direct aviation support, such as

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aircraft maintenance facilities, which rely on aircraft operators at an airport for their livelihood, have additionally seen a decrease in overall demand.

However, the current economic and traffic declines should not detract the airport from its future development plans. The airport must look at a measured long term development strategy, as it has been anticipated that when the economic recovery occurs, the existing surplus in hangar space may well evaporate and demand will return to the market. To meet this demand, alternatives and concepts for the landside development areas should be in place.



Provided below are compatible on-airport and adjacent to the airport land use possibilities that could be considered good targets for economic development. While most of the land uses outlined below might be prime opportunities for private investment, in some cases grant funding may be available for some of the on-airport development options.

On-Airport Economic Development Options

Hangar-type Structures for Aircraft Storage

- T-hangars to house aircraft in individual divided units contained in a larger structure,
- Conventional executive hangars (box hangars) capable of housing one or two general aviation aircraft,
- Corporate hangars capable of housing one or more business jet aircraft,
- Larger "mass storage" hangars that can house a number of aircraft under one roof without the separating partitions that characterize a T-hanger structure.

Additionally one should keep in mind that from a tax revenue perspective, aircraft owners by virtue of the sizeable tax assessment on their aircraft and hangar facilities usually receive little or minimum value in return for the amount of tax they pay. Airport property, its associated businesses (FBO & maintenance facilities, etc.) and aircraft kept at the airport are traditionally not an economic drain on county or city resources nor do they have large infrastructure requirements such as schools, water, sewers, roads and city services when compared to housing subdivisions or retail development.

Hangar-type Structures for Aeronautical Support Services

- Fixed Base Operation
- Aircraft sheet metal fabrication/installation
- Composite component fabrication/installation
- Aircraft conversions, modifications/overhauling
- Flight Training Centers
- Pipeline Survey/Aerial Mapping Services

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- Air Ambulance Services
- Aircraft inspection services
- Air Charter/Air Tour Services
- Aircraft completion centers
- Aircraft dealers, used aircraft dealers
- Technical and Trade Schools
- Aircraft engine overhaul/rebuilding
- Avionics equipment, antennas, GPS equipment installation

Airport Immediate Adjacent Economic Development Options

Retail/Light Industrial

- Hotel/Motel/Lodging Facilities
- Restaurants & Fast Food Establishments
- General Tool/Equipment Rental Centers
- Passenger Car Rental
- Convenience Stores
- Gasoline Stations With Convenience Stores

Office/Industrial

- Air Charter Services
- Flight Scheduling And Dispatching
- Aircraft Engines And Parts Brokerage
- Testing Laboratories
- Aircraft Insurance Agencies And Brokerages

Warehousing

- Aircraft Engines And Parts Wholesalers
- General Warehousing And Storage

Aviation Light Mixed Use & Manufacturing

- Fluid, Hydraulic, Pneumatic Aircraft Sub-Assemblies Manufacturing
- Prototype Aircraft Engines And Engine Parts Development And Production
- Aircraft Communication Equipment, Antennas, GPS Equipment Manufacturing
- Aircraft Engine Overhaul/Remanufacturing
- Aircraft Engine Parts Manufacturing Aircraft Assemblies, Subassemblies, Parts, Component Manufacturing

Commercial Business Services

- General Automotive Repair
- Child Care/Day Care
- Automotive Body, Paint, And Interior Repair And Maintenance
- Technical And Trade Schools
- Computer And Office Machine Repair And Maintenance
- Commercial, Home And Garden Equipment Rental
- Appliance Repair And Maintenance
- Commercial Banking Institutions
- Electronics Repair And Maintenance
- Real Estate Offices
- Lawyers Offices
- Engineering Services
- Drafting Services
- Interior Design Services

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Task 3 - Identify Commercial and Industrial Use Areas

- **Identification of appropriate areas adjacent to the airport designated for commercial and industrial uses.**

A significant amount of land adjacent to and around the airport is already zoned or planned for development as PD-Planned Development Districts or Planned Development-Light Manufacturing, even though a majority is still being used for agricultural purposes.

As such, developing concepts for the economic development of these areas is limited to the functions of the current zoning. That is not to say that any existing zoning could not be modified should opportunities arise that provide economic benefit that justify a change in zoning. However, consideration of zoning change or modification should be given only to those development prospects that would be compatible with the Airport, dovetail with the existing commercial development, enhance the surrounding neighborhoods while complementing the overall economic development of the City of McKinney.



A review of the surrounding land areas adjacent to the airport included areas that are currently developed with light industrial use, warehousing and with undeveloped real estate being either fallow or currently in agricultural use. For clarification, the areas adjacent to the airport have been divided into quadrants delineated by compass position from the airport.

West Quadrant – An area extending from the existing airport boundary lines, bordered by a line from Elm Street to the North; Country Lane/Airport Road to the west and FM 546 to the south. (Parcels W-1, W-2 & W-3) & (Parcels R-1, R-2 & R3)

The West Quadrant is presently the most developed section of property both within and adjacent to the airport. This area has a majority of the major infrastructure in place and would be the quickest and relatively easiest section to develop. Acquisition of land by the City in this quadrant for airport expansion would be able to support a mix of aviation-related activities while the remaining area outside the airport perimeter would be able to support retail/light industrial, aviation related light mixed, office/industrial and commercial business services.

As mentioned previously in Task-1, “West Side Development” section, there will be a need to provide certain parcels of prime real estate with good road frontage in very close proximity to the airport that can be utilized for both airport and community support businesses providing goods and services to the area while serving as a buffer for the airport. Setting the airport boundary back 300 to 350 feet from Airport Road would provide the ability to locate businesses along the valuable road frontage

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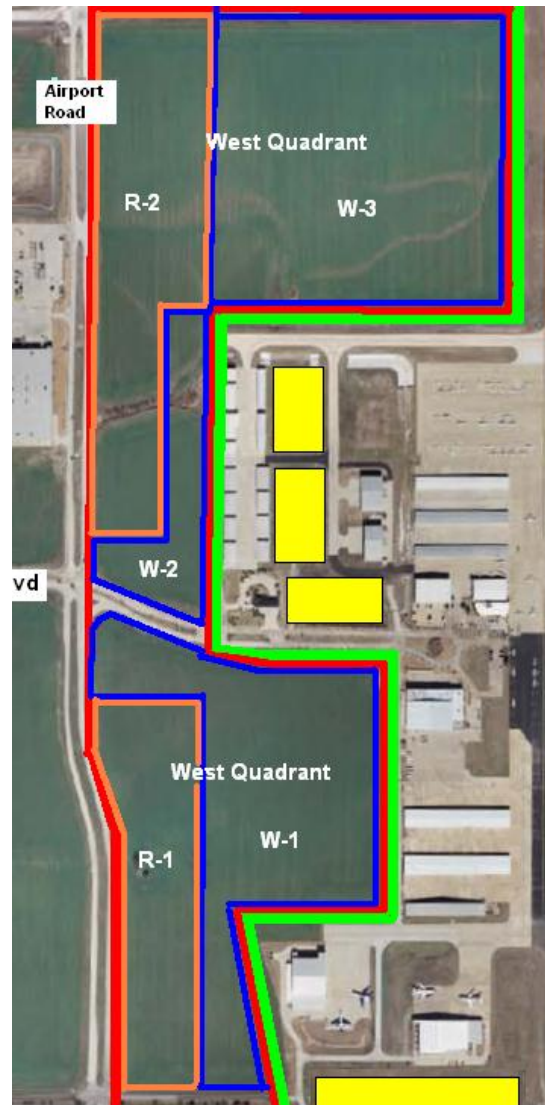
(Parcels R-1, R-2 & R3) while still allowing expansion of the airport boundary and foot print (Parcels W-1, W-2 & W-3) to support future hangar or aeronautical business development. Under this scenario, any land acquisition and ownership plans can be resolved and the property could be marketed in cooperation with the current owner.

With the future land acquisition planned in this fashion, the more valuable road frontage would be available for private development. Of benefit would be possible lower land acquisition costs for the Airport for Parcels W-1, W-2 & W-3 while providing the airport with the additional land it needs for expansion while maintaining a security and operational buffer. By providing the owner of the property the ability to sell, lease and/or develop the road frontage property (Parcels R-1, R-2 & R3) at higher prime prices and in a conceivably shorter on-the-market time, development of the road frontage would provide enhanced tax revenue opportunities for the City while serving to reduce the amount of capital needed by the Airport to acquire the land for expansion. This central-core airport and road frontage property has the strongest potential for economic development opportunities and growth.

The Airport Road frontage left for private development would extend from a line even with the existing northern boundary of the airport, south to FM 546 just north of the Simpson Strong-Tie facilities. Not included in the road frontage set back would be two parcels located on the north and south sides of Industrial Boulevard at the corner of Airport Road. Since this section of Industrial Boulevard forms the gateway for the airport, future consideration must be given to the development aesthetics for these two parcels and it is strongly suggested that the airport include these in any future acquisition plans.

Located at the extreme northern end of the West Quadrant is a large parcel of land (Parcel W-3) that could be acquired for future expansion of the airport foot print. This parcel is comparable in size to the existing ramp, hangar and FBO complex immediately north of Industrial Boulevard. This area could comfortably accommodate approximately ten (10) large box-hangars, six (6) rows of T-hangars, 16 mid-size box hangars and an FBO plus associated ramp areas.

In a similar fashion, the parcels of land (W-1 & R-1) located south of Industrial Boulevard and just north of the Simpson Strong-Tie facilities would also be available for both Airport expansion and for private development with R-1 providing good road frontage and accessibility for businesses on the south side of the airport. Parcel W-1



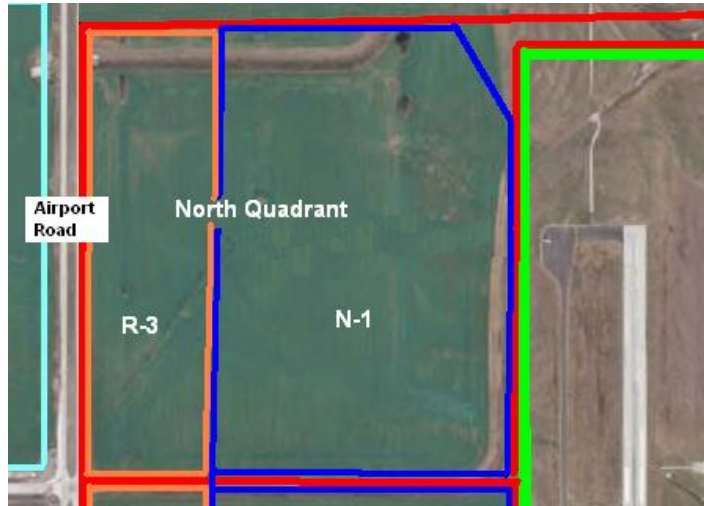
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has the ability to support development of several large corporate hangars plus several mid-sized box hangars along with associated ramps and taxiways.

North Quadrant – A land area extending from Airport Road on the west, abutting up to the current Airport property line to the east, along Enloe Road to the north and then to the east where Enloe Road begins to turn due south.

Located immediately north of the West Quadrant, this section of land takes into consideration an area that is currently zoned to support commercial/light industrial and airport activities. It has a considerable amount of road frontage running along Airport Road on the west as well as abutting up to the current Airport property line to the east. As previously mentioned prime real estate with good road frontage in very close proximity to the airport that can be utilized for both airport and community support businesses, could prove to be a valuable resource for future economic development.



With this in mind, future acquisition planning should take into consideration the same basic conceptual suggestions as noted in the West Quadrant description above, related to providing a buffer zone and segregating the more valuable road frontage from the land necessary for airport expansion.

Located within the North Quadrant is a large parcel of land that could additionally be acquired for future expansion of the airport foot print. This parcel (Parcel N-1) is approximately two times larger than parcel W-3 previously mentioned in the “West Quadrant” section above. Acquisition of this parcel has the potential capability of supporting an extremely large number of hangars, aircraft and component maintenance facilities, ramp areas and remote tie downs. This quadrant additionally has economic development potential associated with Airport Road frontage (R-3) which would be able to support retail/light industrial; aviation related light mixed, office/industrial and commercial business services.

Located at the extreme northern boundaries of the North Quadrant is an area of land that because of its proximity and considerations for the Obstacle Free Zone, Runway Protection Zone and Building Restriction Line has limited economic development potentials. However, there may exist an opportunity to utilize some of this marginal real estate as Public Facility Areas that allow public uses that serve both the airport and the surrounding community such as fire and police stations or for aviation-related departments such as field and grounds maintenance.

East Quadrant – An area east of the existing airport boundary lines beginning where Enloe Road first runs south to a point approximately 5,000 feet where Enloe Road turns due east, then through open field to FM 546 on the south.

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The East Quadrant (E-1) at present is a largely undeveloped section of real estate both inclusive of and adjacent to the airport. This area can be accessed along Enloe Road however; there are plans to extend FM 2933 to this area in the future. While the proposed alignment of FM 2933 is still in the development stages, consideration of future airport land acquisition will require finalization of the alignment process as the ultimate eastern boundaries of the airport property will depend upon the alignment and subsequent construction.

Currently, most of the real estate in this quadrant is zoned as Airport, Planned Development or Light Manufacturing; however a large majority of the land in this quadrant is currently in agricultural use. To realize any potential of the land planned for airport acquisition or adjacent property will require significant and costly infrastructure improvement before any form of development can occur. Besides an adequate roadway system to access the area, the current quadrant will require the basic infrastructure systems of water, sewer, electric, natural gas and communications necessary to support any future economic development. Installation of infrastructure in this quadrant will not occur in the near term. However, once the alignment planning of FM 2933 is completed, installation of the necessary infrastructure should be performed in conjunction with the roadway construction. Once this infrastructure is in place, the area will attract development and provide enhanced tax revenue.

Acquisition of land in this quadrant by the City for airport expansion should take place in conjunction with the finalization of FM 2933 alignment process. The City and Airport should again think about leaving a certain portion of the roadway frontage out of the airport acquisition planning process making it available for private development as noted previously to support a blend of aviation-related activities on the landside acquisition as well as the remaining area outside the airport perimeter available for retail/light industrial, office/industrial and commercial business services.



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South Quadrant – An area south of the existing airport boundary lines beginning where the Enloe Road south transects FM 546, west along FM 546 to Airport Road.

The South Quadrant (S-1) is located at the extreme southern boundary of the airport and is an area of land that because of its proximity to and considerations for the Obstacle Free Zone, Runway Protection Zone and Building Restriction Line has limited economic development potentials similar to these zones in the North Quadrant.

Since this area may offer limited economic development opportunities, the area may be able to provide land for a park and/or observation area to allow for public vehicle parking and public viewing of airfield activity.

North West Remote – An area of land located on the west side of Airport Road and adjacent to Elm Street.

This tract while not located immediately adjacent to the Airport property line does have the ability of supporting non-aviation and airport dependent activities located on sites that do not have direct access to the airfield. This area could provide ample development space for businesses that have a direct tie-in to general aviation aircraft activities; however these businesses could function independently in other areas of the City.

This non-aviation land area could provide the airport with additional revenue by having available support services and industries that are used by customers of the airport. Future development could include hotels, car rental agencies, restaurants, offices, child care center, limited neighborhood retail or grocery stores.

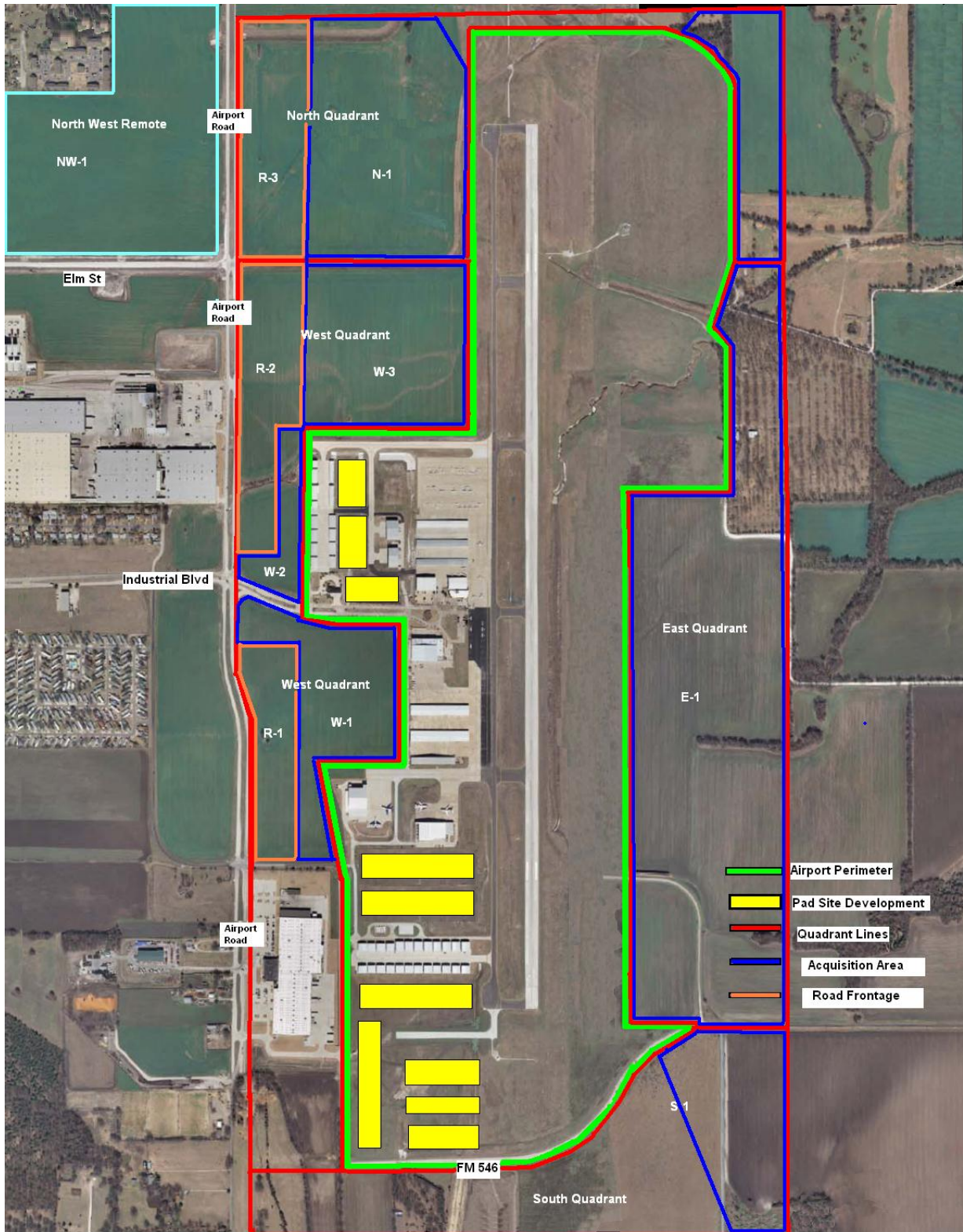


An alternative option for this tract that might also be considered is that of an Aviation Technology Campus. This campus would provide educational opportunities for students whose career interests and aptitudes lie within one of the diverse facets of the aerospace industry such as Aeronautical Engineering and Technology, Aviation Law, Airport Management, Professional Flight Technology, Logistics & Supply Chain Management and Aircraft Maintenance Management. Possible partners to explore this option with might include Embry Riddle University, Texas A&M University or University of North Texas.

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Illustration of Airport Adjacent Property



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Task 4 – Viability of Second FBO

- **Provide opinion regarding the viability of a second Fixed Base Operator (FBO) at the airport.**

The FAA is often quoted as saying, "Every FBO has the right to go broke."

In a market environment it is believed by many that competition will foster greater consumer value and lower prices. While this may be true when it comes to consumer disposable goods, it may not necessarily be the rule when it comes to a service oriented business like a Fixed Base Operations at airports.



The FAA (Federal Aviation Administration) is currently on record regarding the promotion and sustainability of competition on an airport. In the FAA's Advisory Circular 5190-5, it has fundamentally required that an airport ensures competition for services on the airfield and that this competition be fair and open to all who have the resources to provide services or respond to a possible growth opportunity for their business at the airport.

Additionally, the FAA clearly ties an airport's ability to acquire Airport Improvement Program (AIP) funds to the airport's responsibility to maintain a level playing field for competition, by requiring any potential parties who are interested in engaging in commercial aeronautical activities to meet certain reasonable requirements commonly referred to as minimum standards.

Compounding the "there's just one FBO on the field" question is the issue relating to airport exclusivity. In the FAA's Airport Assurance 23 requirements, it states that the airport will not permit exclusive rights for the use of the airport by any person to provide or intend to provide aeronautical services to the public. While the context of this caveat may seem steadfast, it is often misinterpreted. Many airports think that they are in breach the assurance if they have only one FBO at the airport.

The FAA's Airport Compliance Handbook, Order 5190.6A, says a single aeronautical activity on an airport does not necessarily translate into exclusivity. In short, the handbook states "The presence on an airport of only one enterprise engaged in any aeronautical activity will not be considered a violation of this policy if there is no understanding, commitment, express agreement, or apparent intent to exclude other reasonably qualified enterprises."

Additionally, the FAA clarifies this concern by stating, "In many instances, the volume of business may not be sufficient to attract more than one such enterprise. As long as the opportunity to engage in an aeronautical activity is available to those meeting reasonable qualification and standards relevant to such activity, the fact

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that only one enterprise takes advantage of the opportunity does not constitute the grant of an exclusive right.”

While an airport has a responsibility to consider all proposals to ensure its overall financial stability, they also have the responsibility to ensure that giving a new business the approval to develop and conduct a new business enterprise at the airport will not unduly harm the current or future airport environment.

Unfortunately, there is no quick, easy methodology to determine the appropriate number of FBO's that an airport can support. There are however, certain rationales that may be considered to resolve whether an airport has the capability to support more than one FBO. Determining whether a competing FBO at the airport represents an opportunity for the airport or a threat to the existing FBO should start with a look at the airport current operating atmosphere.



As with any type of retail operation, an FBO faces many of the same hurdles in conducting its business however, an FBO differs from the typical retail operation in at least two major ways:

- In most cases, it is common practice that an FBO does not actually own property on the airport. In most airport ground leases there are reversion clauses whereas any facilities constructed on the leasehold reverts ownership of the facilities to the airport sponsor upon lease term expiration.
- While retail operations may interact only with the local municipalities for authorization to conduct business, a new FBO is required to not only meet certain FAA guidelines but also the airport's minimum standard requirements related to the type, level, and quality of products, services, and facilities to be offered prior to conducting business on the airfield.

Airports are frequently faced with the question of whether or not a single FBO represents a breach of the FAA's grant assurances or whether the market should determine the number of FBO's that an airport can successfully sustain.

Prior to considering or requesting proposals from prospective FBO's to operate at the airport, the airport must in good faith provide any existing and prospective FBO operators with a chance to be successful. This does not necessarily mean that the airport has an obligation to assure an FBO's success, it does however require that the airport provides an operating environment that is conducive to the FBO's success. This may be achieved by making certain that the airport provides any prospective FBO operator with:

- Availability of ample land for FBO development;
- Reasonable guidance documents relating to uniform airport lease rates, minimum standards, rules and regulations, and development requirements, commercial and fuel flowage fees;

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- An adequate number of based and transient aircraft; and
- Sufficient aviation fuel volumes and aircraft operations to support the FBO's investment.

This does not imply that the airport must lease land and/or improvements to a company that based upon the airports due diligence will most likely be unsuccessful in fulfilling its lease obligations. In addition, it does not mean that an airport must lease land and/or improvements to potential FBO's engaged in activities that will have an unfavorable influence on safe airport operations, even if the FBO meets airport's minimum standards.

Should the airport be interested in seeking prospective companies who may want to develop a second FBO, the airport needs to evaluate certain information related to the airport and its ability to support and sustain the existing FBO as well as any prospective FBO business enterprise. This evaluation should include at a minimum analyses of the airports current and future demand & capacity, a return on investment/internal rate of return analysis; and an airport financial impact analysis.



- Demand/Capacity – A demand/capacity analysis assists in identifying and quantifying the type, level, and quality of FBO products, services, and facilities provided at an airport and compare it to the level of “demand” being driven by the airports existing customers and anticipated future demand.
- Return on Investment (ROI) and Internal Rate of Return (IRR) Analysis – An ROI analysis helps to establish an estimate of the viability of a prospective FBO to add to or expand the airports existing products, services, and/or facilities. This analysis can also be used to ascertain any possible financial impact of adding capacity to the existing airport.
- Airport Financial Impact Analysis – Allows the airport to calculate the impact of any FBO addition or expansion prior to soliciting new business proposals. This will assist in determining both positive and negative financial impacts that may result from the addition of the prospective new FBO.

Regardless of whether the airport solicits a proposal from potential FBO ventures or receives an unsolicited statement of interest on opening a competing FBO, the need to perform the analysis remains the same.

In summary, the airport has the responsibility and obligation to manage the financial stability of the airport in a manner consistent with the mission and conditions of the

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City's financial guidelines. It is essential that the financial integrity of any prospective FBO developer be determined prior to granting permission to proceed with development, the airports future demand & capacity potential be understood, and determine what the net effects of opening a second FBO on the airport will be on the existing FBO operator.

In short, it would be better to have one strong FBO that provides first-class service to its customers and consistent revenue to the airport as opposed to having two marginal FBO operations that in order to compete have to cheapen the marketplace to the point where neither can support their operations effectively or meet the revenue desires of the airport.

In today's marketplace, the Collin County Regional Airport does not appear to have either the demand or the capacity potential to warrant the addition of a second FBO to the airport. As such, consideration at this time should not be given towards public solicitation of a competing FBO however, this does not rule out entertaining "unsolicited" proposals from any companies that may have an interest in starting operations at the airport.

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Summary

In summary, the Collin County Regional Airport has a large number of extremely positive attributes that will encourage future economic growth. Conversely, there are also some negatives, most of which are not the fault of the City of McKinney or Airport but rather faults of the sluggish economy, the general downturn in the aviation industry and external forces that lie beyond the City's control.

A number of issues were identified as a part of this study that will require thought from the City of McKinney and the Airport Administration to help stimulate economic development of the airport and its adjacent areas. These include:

Real Estate Development

- Consider establishing a separate "Airport Development Zone or Airport Enterprise Zone" to provide additional incentives to attract incremental aviation-centric and non-aviation traditional businesses to the airport and adjacent area.
- Work in conjunction with property owners & realty brokers of adjacent lands to develop and maintain a vacant/available land data base for industrial and commercial development used for shared marketing efforts.
- Provide opportunities for airport support services development such as hotels, catering, offices, retail and other commercial development that are compatible with airport operations to aid in improving economic development of the airport and adjacent community.
- Focus real estate marketing efforts for adjacent lands on businesses that produce high value and/or low weight products requiring immediate transport such as specialty medical supplies & products, biotechnical support and service companies, precision aircraft components and avionics.
- Have the utilities, infrastructure and building sites both on the airport and adjacent to it ready for business attraction and development by a prospective company. Readiness is critical to ensure a company's rapid location of their business to the area, as well as demonstrate the Airport and adjacent areas overall competitive edge.
- Determine the resource requirements of existing airport and airport adjacent employers and assist in helping them "grow" their businesses.
- Support the growth of local entrepreneurial businesses within the "Airport Development Zone", and maintain ongoing communication with the community on airport economic development-related issues and opportunities.

Business Marketing Efforts

- Focus marketing on attracting corporate flight departments such as JC Penney, Frito Lay, etc. to locate their flight operations to the airport.
- Market airport (especially vacant McKinney Aerospace facility) to business and private aircraft charter operators such as Spectrum Air, Net Jets, Flight Options, Flex Jet, to use as a maintenance/dispatch hub as well as an alternative to using ADS & DAL when visiting the North Dallas area.
- Focus marketing efforts towards well known aircraft maintenance and repair corporations such as Duncan Aviation and Mid-Coast Aviation. National aircraft maintenance companies like these will usually bring a customer following.

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Educational Efforts

- Provide availability of customized workforce training that is free to businesses through reimbursement for locating jobs in the "Airport Zone" which helps to create employment opportunities for residents in neighboring community.
- Discuss with MISD an airport based education program that uses aviation to promote academic and vocational learning while encouraging career exploration in aviation related industries.
- Forge alliances with higher education entities such as the University Aviation Association members, UNT & Texas A&M related to locating learning center near the airport.
- Explore possibilities of developing an "Aviation Technology Corridor" focused on such things as advanced aviation electronics, advanced aircraft maintenance training, composite materials, aviation software development and general aviation flight simulator facilities, etc.

Tax & Business Incentives

- Review current tax and business incentives programs and better tailor them to fit the Airport Zone needs. Currently, the City of McKinney and to a degree, the State of Texas offer the following airport related incentives:
 - Tax Abatement - On a case-by-case basis, the city will consider providing tax abatement for developments which meet the overall goals and objectives of the City.
 - Triple Freeport "Inventory" Tax Exemption - The City of McKinney, McKinney School District and Collin County offers an inventory tax exemption on personal property including goods, wares and merchandise. To be eligible, the property must be shipped out of the state within 175 days; however, it can be assembled, stored, manufactured, processed or fabricated locally. McKinney is one of a few Dallas Metroplex communities where all three property taxing jurisdictions offer this benefit.
 - Enterprise Zone - McKinney's designated Enterprise Zone is located east of SH-75 and includes business parks and the Collin County Regional Airport. Qualifying companies located within the Zone can make application for state tax incentives.
 - State of Texas Incentives - The State of Texas offers various incentives to qualifying businesses including:
 - The Emerging Technology Fund (ETF)
 - Texas Enterprise Fund
 - Loan Assistance
 - Training Assistance
 - Enterprise Zone Program
- Consider "Airport Zone" Specific Tax Incentives. Some possibilities could include:
 - Tax Exemption
Example - The City of Grand Junction, Colorado granted West Star Aviation an exemption from city sales tax on aircraft parts installed during maintenance. According to a spokesperson for West Star Aviation, the company appealed to the City Economic Council, asking

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for relief from having to charge city sales tax on parts installed on aircraft during maintenance procedures so they could be competitive with maintenance facilities in other states.

- Foreign Trade Zone

Example - The Vigo County Industrial Park, Fort Harrison Industrial Park and Aleph Business Park are all part of the Terre Haute International Airport's Foreign Trade Zone. A Foreign Trade Zone (FTZ) is an area technically outside of United State commerce, where goods can be stored, assembled, manipulated and repackaged without being subject to tariffs, duties or inventory taxes until the goods leave the FTZ and officially enter U.S. commerce.

- Airport Development Zone

Example - Businesses locating in the zone receive tax credits similar to those available in an Urban Enterprise Zone. The Indiana General Assembly has designated the area around Terre Haute International Airport as an Airport Development Zone to encourage development of the area - primarily for airport-related businesses. In addition, the Airport Authority is permitted to use tax increment financing to pay for public infrastructure to support business activity within the zone.

Example - The Bradley Airport Development Zone establishes tax incentives for manufacturers and certain related businesses that build or substantially renovate facilities in the area and create new jobs. The available credits are a 5-year, 80 percent property tax exemption, and a 10-year corporate business tax credit that can range from 25 percent to 50 percent. Businesses seeking the credits must demonstrate economic need and a benefit to the state, and that the incentives influenced their decision to locate within the zone.

Conclusion

For the communities that rely on CCRA, the airport's future economic development depends on more than one community, one industry or one subject. Developing the airport into a center for energetic growth depends on the involvement of stakeholders to share their vision and coordinate their efforts so the airport can deliver economic benefits to the community both now and into the future.

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Supplemental

The Aerotropolis Concept

"Look for yesterday's busiest train terminals and you will find today's great urban centers. Look for today's busiest airports and you will find the great urban centers of tomorrow."

John D. Kasarda
The Aerotropolis

An Excerpt

In 2000, Dr. John D. Kasarda, who defined the Aerotropolis concept, related that airports have evolved as drivers of business location and urban development in the 21st century in the same way as did highways in the 20th century, railroads in the 19th century and seaports in the 18th century.

An Aerotropolis is a new type of urban form comprising aviation-intensive businesses and related enterprises extending outward from an airport. It is similar in form and function to a traditional metropolis, which contains a central city core and its commuter-linked suburbs. An Aerotropolis has an Airport City at its core and is surrounded by clusters of aviation-related enterprises.

Aerotropolises are powerful engines of local economic development, attracting air-commerce-linked businesses to the land surrounding an airport, similar to the function of a central business districts in the downtown areas of major cities.

Aerotropolises typically attract industries related to time-sensitive manufacturing, e-commerce fulfillment, telecommunications and logistics; hotels, retail outlets, entertainment complexes and exhibition centers; and offices for business people who travel frequently by air or engage in global commerce. Clusters of business parks, logistics parks, industrial parks, distribution centers, information technology complexes and wholesale merchandise marts locate around the airport and along the transportation corridors radiating from them.

Major airports have become key nodes in global production and enterprise systems offering them speed, agility, and connectivity. They are also powerful engines of local economic development, attracting aviation-linked businesses of all types to their environs. These include, among others, time-sensitive manufacturing and distribution; hotel, entertainment, retail, convention, trade and exhibition complexes; and office buildings that house air-travel intensive executives and professionals.

The rapid expansion of airport-linked commercial facilities is making today's air gateways anchors of 21st century metropolitan development where distant travelers and locals alike can conduct business, exchange knowledge, shop, eat, sleep, and be entertained without going more than 15 minutes from the airport. This functional and spatial evolution is transforming many city airports into airport cities.

As more and more aviation-oriented businesses are being drawn to airport cities and along transportation corridors radiating from them, a new urban form is emerging—the Aerotropolis—stretching up to 20 miles (30 kilometers) outward from some airports. Analogous in shape to the traditional metropolis made up of a central city

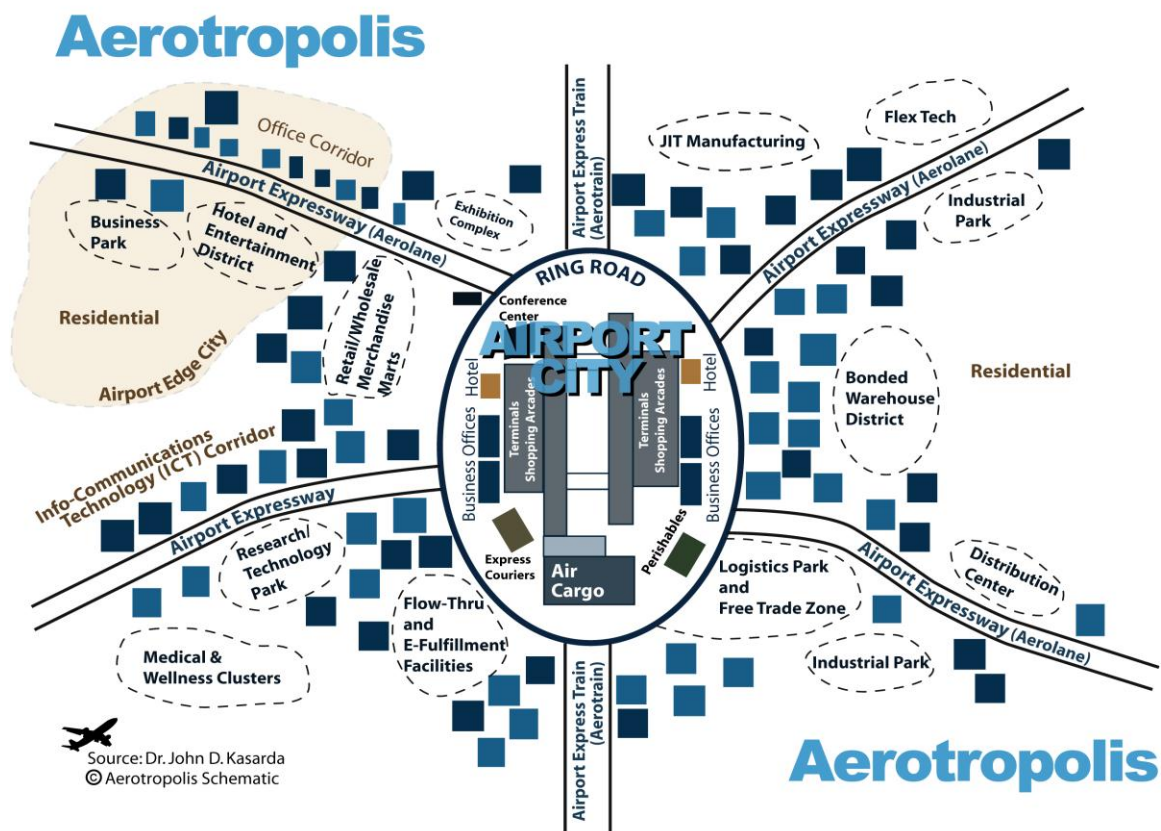
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and its rings of commuter-heavy suburbs, the Aerotropolis consists of an airport city and outlying corridors and clusters of aviation-linked businesses and associated residential development. A number of these clusters such as Amsterdam Zuidas, Las Colinas, Texas, and South Korea's Songdo International Business District have become globally significant airport edge-cities representing planned postmodern urban mega-development in the age of the Aerotropolis.

A spatially compressed model of the Aerotropolis showing its current and likely future evolution is illustrated below. No Aerotropolis will look exactly like this but most will eventually take on similar features, led by newer "greenfield" airports less

Aerotropolis Schematic



constrained by decades of prior surrounding development. The Aerotropolis is thus much more of a dynamic, forward-looking model than a static, cross-sectional model reflecting historic development to date.

Although most aerotropolis development to date has been organic, spontaneous and haphazard — often spawning congestion and environmental problems — in the future it can be markedly improved through strategic infrastructure and urban planning.

- ➔ Dedicated airport expressway links (aerolanes) and airport express trains (aerotrains) should efficiently connect airports to major regional business and residential concentrations.

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- ➔ Special truck-only lanes should be added to airport expressways, as should improved interchanges to reduce congestion.
- ➔ Time-cost accessibility between key nodes should be the primary aerotropolis planning metric rather than distance.
- ➔ Businesses should be steered to locate in proximity to the airport based on their frequency of use, further reducing traffic while improving time-cost access.
- ➔ Airport area goods-processing activities (manufacturing, warehousing, and trucking) should be spatially segregated from white-collar service facilities and airport passenger flows.
- ➔ Noise and emission-sensitive commercial and residential developments should be sited outside high-intensity flight paths.
- ➔ Cluster rather than strip development should be encouraged along airport transportation corridors with sufficient green space between clusters.
- ➔ Place-making and way-finding should be enhanced by thematic architectural features and iconic structures.
- ➔ Mixed-use residential/commercial communities housing airport area workers and frequent air travelers should be developed with easy commutes and designed to human scale providing local services and sense of neighborhood.

In short, aerotropolis development and sustainable "smart growth" can and should go hand-in-hand.

The above outcomes will not occur under most current airport area planning approaches which tend to be localized, politically and functionally fragmented, and often conflicted. A new approach is required bringing together airport planning, urban and regional planning, and business site planning in a synergistic manner so that future Aerotropolis development will be more economically efficient, aesthetically pleasing, and socially and environmentally sustainable.

The real question is not whether Aerotropolises will evolve around major airports (they surely will). It's whether they will form and grow in an intelligent manner, minimizing problems and bringing about the greatest returns to the airport, its users, businesses, surrounding communities, and the larger region it serves.

Concept – "McKinney Airport Village"

As a designated reliever airport, the Collin County Regional Airport (CCRA) may not be as busy as or be on the same economic scale with other larger metropolitan aerotropolis airports such as DFW Airport, Amsterdam or Munich. However, the same basic concepts that make these airports powerful drivers of local economic development by attracting both aviation and aviation-linked businesses of all types to their environs may with extensive planning be easily carried over into the areas surrounding the Collin County Regional Airport.

The Collin County Regional Airport is fortunate in being surrounded by acres of undeveloped land, what can best be termed "green field". The CCRA is significantly less constrained by the decades of prior development that surround such airports as Dallas Love Field or Addison Airport. This green field environment can provide the

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City of McKinney and the CCRA with extensive freedom to direct the airports future physical growth, economic development and identity.

According to Dr. Kasarda, just as Aerotropolises have evolved in different forms based on land availability and ground transportation infrastructure, all emerged virtually in response to four basic drivers:

- ➔ Airports need to create new non-aeronautical revenue sources, both to compete and to better serve their traditional aviation functions.
- ➔ The commercial sector's pursuit of affordable, accessible land.
- ➔ Increased gateway for passengers and cargo traffic generated by airports.
- ➔ Airports serving as a catalyst and magnet for landside business development.

As a reliever airport, the likelihood of CCRA having extensive commercial air carrier passenger and cargo operations in the future may be limited; hence the opportunities associated with capturing revenue from the aspects of those commercial operations may also be limited.

However, the same drivers noted by Dr. Kasarda that create an aerotropolis environment may to a lesser degree be realized by CCRA to create opportunities to increase economic development and associated revenue for the city by capitalizing on the strengths of the airport through the creation of an "Airport Development Zone", "Aviation Technology Corridor" or a "McKinney Airport Village".

As a concept, "McKinney Airport Village" relies on the airports prime assets:

- ➔ Its availability of green field for development;
- ➔ Excellent airport infrastructure;
- ➔ Improvements being made in accessibility;
- ➔ Strong political support;
- ➔ Incentive oriented leadership

With the finalization of the alignment and construction of FM 2933, the entire east side of the airport will become available for future development. The City of McKinney must plan now for several key acquisitions to add the appropriate amount of land to the east side of the airport as well as possibly expand its city boundaries through a planned annexation program.

In conjunction with these processes, there will be the need to examine the development concepts currently in place to determine how the acquisitions can be developed to provide the best fit for the community and yield from a revenue perspective. These are issues that will undoubtedly require much further consideration and in-depth discussion.

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