

7.0 ON-AIRPORT LAND USE ALTERNATIVES

A recommended development plan was prepared as part of this Master Plan Update (MPU) and is presented in Figure 5-12. The recommended plan highlights several areas within the existing airport property limits that are available for development or redevelopment. This chapter evaluates the development potential of the property at Hartford-Brainard Airport (HFD) based on current market trends and physical characteristics of the available property. This information is presented in the following sections:

- Competitive Facilities Analysis
- Property Development Analysis
- Sustainability Review of Development

An analysis on the regional socioeconomics, market supply, and pipeline are available in Appendix G. At this time, the Connecticut Department of Transportation (CTDOT) does not anticipate non-aviation development to take place on airport property and the focus is the market potential for aviation-dependent activities.

7.1 Competitive Facilities Analysis

The following section compares the HFD's facilities with those of other regional airports in order to provide a baseline of information to determine the regional competitiveness of the airport. The airports that were compared to HFD include the four other facilities in the Hartford area of the Capital Region Council of Governments (CRCOG), as well as Meriden and Plainville located immediate to the south:

- Bradley International Airport - BDL (Windsor Locks)
- Ellington Airport – TB9 (Ellington)
- Meriden-Markham Municipal Airport – MMK (Meriden)
- Robertson Field Airport – 4B8 (Plainville)
- Skylark Airport – 7B6 (East Windsor)
- Simsbury Airport – 4B9 (Simsbury)

The airports that are comparable to HFD were selected based on an approximate 30 to 40-minute drive time market area from HFD. This market area represents the most likely (and reasonable) catchment area for aircraft owners residing in the region to base their aircraft at HFD, and also encompasses the majority of businesses, residents and others who may use the airport. The location of HFD and the competitive airports are shown in Figure 1-2.

The key facility components and characteristics that were compared at each of the airports included:

- Runways
- Operations and based aircraft
- Aircraft storage hangars and tie-downs
- Fuel availability

- FBOs

The following provides a narrative summary of the HFD's facilities in comparison to the other regional airports.

7.1.1 Runways

With three runway options, including a 4,417 foot by 150 foot primary runway, a crosswind 2,314 foot by 71 foot runway, and 2,309 foot by 200 foot turf runway, HFD has the second longest landing facilities of any competitive airport. As a commercial airport, BDL has the longest primary runway (at 9,510 feet) of the competitive airports. BDL's landing facilities, although substantial, cater primarily to commercial aircraft as well as air cargo and corporate jet aircraft (business jets). According to FBOs, airport operators and aircraft owners, commercial operations and other large aircraft at BDL can often "push" the operators of smaller general aviation aircraft (both itinerant or local) to the smaller airports in the market area (including HFD).

7.1.2 Operations and Based Aircraft

Based on estimates provided by the FAA, HFD's 79,500 annual operations in 2011 ranked it the second highest of the competitive airports, with only BDL's 107,300 annual operations eclipsing HFD. At close to 80,000 annual operations, HFD has several times the operations at the next largest airport (Robertson at 21,200 operations). Based on qualitative assessments provided by officials at BDL and the other competitive airports, aircraft operations at each facility over the past three or more years has generally declined due to the "Great Recession" and slow pace of the economic recovery. However, there are indications that this trend has started to reverse as operations and general airport activity are slowly moving in a positive direction, particularly in the business sector.

Although HFD's operations rank it second compared to the other regional airports, HFD's 159 based aircraft are more than double compared to the other facilities. Skylark's 60 based aircraft rank it second compared to HFD, while BDL (56), Simsbury (53), Meriden-Markham (51), Robertson (49), and Skylark (46). Ellington has the fewest number of based aircraft estimated at 20. The total number of based aircraft within HFD's service area is estimated at approximately 450 planes, which represents a decline of about 50 aircraft over the past three years.

7.1.3 Aircraft Storage Hangars and Tie-downs

To determine the market area rates, charges, supply and demand for aircraft storage hangars, a telephone survey of airport managers, owners and hangar condominium associations was conducted. Table 7-1 summarizes the rates, charges and sale prices for aircraft storage options for HFD and the other competitive



Tie-Downs at Robertson

airports in the market area. Tie-down fees range from \$55 a month for a State tie-down at HFD at the time of the survey at the low end, to \$272 a month for a tie-down space at BDL. The price of tie-downs at HFD was increased to \$90 in October 2012. While the difference between low- and high-end pricing is significant (at \$217 a month), tie down fees throughout the region are generally within a range of \$75 to \$100 a month.

The airport owners, managers and FBO officials interviewed indicated that there is a surplus of tie-downs available at airports throughout the region, as has been the case for several years. Due to the significant cost to own, operate and maintain an airplane, aircraft owners typically prefer to store their aircraft in a hangar to prevent exposure to the outside elements and for added security. As such, tie-downs, although the least costly option, are generally not the preferred storage option and therefore are in abundant supply at each of the airports within the HFD market area.

Table 7-1 - Aircraft Storage Fees and Pricing		
Airport	Tie-Downs	Hangar Storage
Hartford-Brainard (HFD)	\$75/Month (FBO Tie-Downs) \$90 ¹ /Month (State Tie-Downs)	T-Hangar Condos (older units) @ \$30,000 to \$33,000 (plus \$185/Month condo fee)
		T-Hangar Condos (newer units) @ \$65,000 to \$68,000
		Conventional Hangar Space @ \$0.75-\$0.80/SF
Bradley Int'l (BDL)	\$272/Month	Conventional Hangar Space @ \$1,700/Month
Ellington (7B9)	\$60/Month	Hangars Privately Owned - Not Available for Sale or Rent
Meriden Markham (MMK)	\$86-\$107/Month	T-Hangars @ \$306/Month
		Conventional Hangar Space @ \$184/Month
Robertson (4B8)	\$75-\$80/Month	Conventional Hangar Space @ \$475-\$1,700/Month
Skylark (7B6)	\$80/Month	Open T-Hangar @ \$240/Month
		Closed T-Hangar @ \$365/Month
Simsbury (4B9)	\$121/Month	Fabric Hangar Condos @ \$13,000-\$14,000 (Shared With Another Aircraft)
Source: Airport visits and telephone interviews by RKG Associates, Inc.		

While all of the competitive airports within the region have excess capacity for aircraft tie-downs, all of the regional airports are at or near capacity relative to T-hangar and conventional hangar space. In terms of T-hangars, with the exception of Bradley and Robertson, all of the other competitive airports have T-hangars either as rental units or condominiums. The total capacity of the T-hangar units in the market area is estimated at 126 aircraft with Simsbury (40 units), HFD (35 units), Meriden-Markham (24 units) and Skylark (24 units) comprising the majority of the bays.

¹ The price was increased from \$55 in October 2012.

Rental rates for T-hangars range from \$240 a month to \$365 a month (both prices are for units at Skylark), while Meriden-Markham offers units at \$306 a month. Current purchase pricing for hangar condominiums start at \$13,000 to \$14,000 for shared space in a fabric hangar at Simsbury. The mid-point is \$30,000 to \$33,000 for older units at HFD, which also commands the highest prices at \$65,000 to \$68,000 for newer units.



Fabric Hangars at Simsbury

T-hangar rental and purchase prices have increased less than 10 percent over the past three years. It should be noted that, like residential condominiums, T-hangar condominiums may also have monthly association fees (e.g. \$185 a month for units at HFD). With only one T-hangar space currently available (at Simsbury), occupancy is at approximately 99 percent. Currently, Skylark has a waiting list of three aircraft owners who are interested in T-hangars, while the other airports do not have formal waiting lists for hangars. Anecdotal information provided by airport officials and condominium association representatives indicated that the “days on market” for an available T-hangar is short (estimated at 14 to 21 days).



Conventional Hangar at Bradley

As the current T-hangar market is essentially near equilibrium (but with high occupancy), only Meriden-Markham Airport is actively considering the construction of additional T-hangars. Under the plan being considered, the City would demolish an existing community hangar which currently housing five aircraft and develop five T-hangar units. Additionally, land would be leased to a developer to construct five additional T-hangar condominium units.

Conventional hangar space in the region is also at or near full capacity. With the exception of a small conventional hangar at Meriden-Markham, conventional hangars are typically operated by an FBO, which provides a line person to facilitate the movement of aircraft in and out of the hangars. Current market rates for conventional hangars range between \$475 a month to \$1,700 a month depending on the size of the aircraft being stored and the condition of the hangar. It should be noted that Meriden-Markham Airport currently rents a conventional hangar at \$184 a month; however, this rate is well below the market range likely due to small size and poor condition of the hangar.

7.1.4 Aviation Fuel Availability

Avgas (100LL) is available at HFD and all the other competitive airports. Jet A is only available at HFD, Bradley, and Robertson. As of July 2012, Meriden-Markham charged the lowest rates for 100LL (\$5.60 a gallon), while Robertson offered the cheapest Jet A (\$5.55 a gallon). Fuel prices were considerably higher at HFD at \$6.41 a gallon for 100 LL and \$6.30 a gallon for Jet A.

7.1.5 Airport Facilities Comparison Summary

The discussion below presents a summary of the comparison of facilities found at the HFD with the other comparative airports. A summary of technical information is provided in Table 7-2.

- HFD’s runways, aprons, aircraft storage facilities, aircraft services and ease of access to I-91 make it the premier GA airport in the region. Infrastructure and facilities (runways, aircraft storage and services) at BDL are clearly more substantial than HFD’s, which is to be expected at a commercial service airport.
- The current T-hangar market is near equilibrium. However, there may be some modest latent demand for new hangar space as occupancy is estimated at 99 percent. Market pricing for T-hangars ranges between \$240 a month to \$365 a month for rental units, while T-hangar condominiums are priced at a mid-point of \$30,000 to \$33,000 (plus monthly association dues). Rental rates and purchase prices have increased less than 10 percent over the past three years indicating a generally static market.
- Although the T-hangar market is near equilibrium, HFD should consider the development of a modest amount of additional aircraft storage facilities as a realistic and viable development option for the following reasons:
 - The “pipeline” of new T-hangars is very limited with only the net addition of five proposed new T-hangar units (at MMK)
 - Occupancy is very high and the “days on market” for T-hangars is generally less than three weeks indicating that, although there may not be organic growth in the market, there is demand for quality aircraft storage hangars (at a reasonable price) from the existing base of aircraft owners in the region
 - HFD’s infrastructure, facilities, services, and ideal location make it very attractive to based aircraft owners in the market area
 - Construction cost is an impediment, as modern units with electric doors typically require a monthly rental rate of approximately \$500 to recoup the financial investment. Smaller (38’ wide doors), wood frame, or open bay T- hangars may be a consideration to reduce costs.

- Should any of the privately owned facilities which include Ellington, Simsbury or Skylark close within the next decade, the demand for aircraft storage options in the market area will likely increase.

It is recommended that HFD designate the currently undeveloped land areas adjacent to the Midfield ramp and on the north side of the control tower for additional hangar development. It is suggested that the midfield area be considered for conventional hangars. The market review suggests that incremental development of a 10 to 12 unit T-hangar building and one conventional hangar could be supported over the next five years. To gauge the interest in the market, CTDOT should consider issuing a Request for Interest (RFI) to prospective developers to develop new hangar facilities in these two areas.

Table 7-2 - Infrastructure and Services at HFD and Competitive Airports

Airport	Runway(s)	Runway Dimensions		Fuel		Avionics Repairs	Aircraft Tie-Downs	Aircraft Hangars	Flight Instruction	Aircraft Rental	Aircraft Charter	Instrument Approach	ILS Approach
		100LL	Jet-A	100LL	Jet-A								
Hartford-Brainard (HFD)	2-20	4,417 x 150 ft		Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
	11-29	2,314 x 71 ft		Yes									
	Turf	2,309 x 150 ft											
Bradley International (BDL)	6-24	9,510 x 200 ft		Yes		Yes	Yes	Yes	No	No	Yes	Yes	Yes
	15-33	6,847 x 150 ft		Yes									
	1-19	4,268 x 100 ft											
Ellington (7B9)	1-19	1,800 x 50 ft		Yes	No	No	Yes	Yes	No	No	No	No	No
Meriden Markham (MMK)	18-36	3,100 x 75 ft		Yes	No	No	Yes	Yes	No	No	No	Yes	No
Robertson (4B8)	2-20	3,665 x 75 ft		Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	No
Skylark (7B6)	10-28	3,242 x 60 ft		Yes	No	No	Yes	Yes	Yes	No	No	No	No
Simsbury (4B9)	3-21	2,205 x 50 ft		Yes	No	No	Yes	Yes	No	No	No	No	No

Source: RKG Associates, Inc. FAA and Airnav.com

7.2 Property Development Review

Section 7.1 recommends that additional aircraft storage be developed at HFD over the next five years to meet market demand. Figure 5-12 displays a recommended development plan, utilizing the currently undeveloped property at the airport. Understanding the opportunities and constraints of the property can assist in determining its best possible use and value. The information can be used as a marketing tool for potential developers as well as the airport itself in guiding its future.

Privately-developed facilities at HFD must meet state and national environmental requirements; therefore the impacts of proposed development must be evaluated. This topic was discussed in detail in the 2011 Airport Business Plan and is summarized here. Several factors affect the development of the parcel and may include:

- FAA Design Standards
- Airspace Obstructions
- Federal Obligations such as Environmental Standards or Permitted Land Use
- Topography
- Utilities
- Ground Access
- Airside Access
- Zoning & Compatible Land Use
- Environmental Considerations

Existing leases and potential development sites at HFD are shown on Figure 7-1. The existing leases are also listed on Table 7-3 by parcel number. It is likely that these leases will be renewed when they expire; however, it is also a potential opportunity for a new tenant of the same of alternative activity.

Parcel	Lease	Description	Expiration
1	State Department of Education	Aviation School	2057
2	FAA	Control Tower	N/A
3	Pine Tree Hangars, LLC	T-Hangars	2031
4	Hartford T's	T-Hangars	2023
5	Charter Oak / Million Air	Tie-downs	2015
6	Charter Oak / Million Air	Hangar	2015
7	Charter Oak / Million Air	Hangar	2015
8	Charter Oak / Million Air	Hangar	2015
9	HTFD. Atlantic Aviation	Aircraft Ramp	2020
10	HTFD. Atlantic Aviation	Hangar	2020
11	HTFD. Atlantic Aviation	Fuel Farm	2020
12	Central Auto	Easement	N/A
13	Department of Transportation	Offices	N/A
14	CT State Police Department	Office / Hangar	N/A
15	CT State Police Department	Parking / Storage	N/A
16	Department of Transportation	Maintenance/ARFF	N/A

The airport has access to all appropriate utility services including, water, sewer, gas, and electricity. These services would be readily available and adequate to support any future buildings constructed to meet future airport demands. As there are no wooded areas, critical habitat, or floodplains, and only a small area of wetlands on the airport property, no significant environmental concerns are anticipated from potential development. The existing ground elevation is such that only minor grading or filling will be necessary for development.

The area to the east of Runway 2-20 is not readily developable due to the lack of vehicle access and the turf runway. The areas around the segmented circle and localizer should remain clear to ensure proper operation of the equipment.

The parcel lines in Figure 7-1 and the potential uses are guidelines and may be modified based on a tenant's or developer's desires. Potential developers may also combine parcels to create a larger development area (i.e., C and D, E and F).

Parcel A – Parcel A is currently a large open area that provides access to the Air Traffic Control Tower (ATCT), but could be used for multiple T-hangars, conventional hangars, and apron space. This 4.3 acre site has access to both Lindbergh Drive and the airfield. This parcel may be subdivided if desired, with the frontage along Lindbergh Drive potentially used for non-aviation development or aviation dependent businesses. Any non-aviation development would require an FAA land release. Depending on the height of the structures, they may penetrate the transitional surface and would require obstruction lighting.

Parcel B – Parcel B is a 0.9 acre site which is currently used for paved tiedowns operated by the State that could be converted to a T-hangar. As a large number of tiedowns are already present on the airfield, ample state tiedowns would remain available. Access to the taxiway on Parcel 5 must be maintained, but a single-nested T-Hangar could be accommodated while maintaining offset requirements. The parcel is located on Lindbergh Drive, which contains ample vehicle parking along the east side of the road.

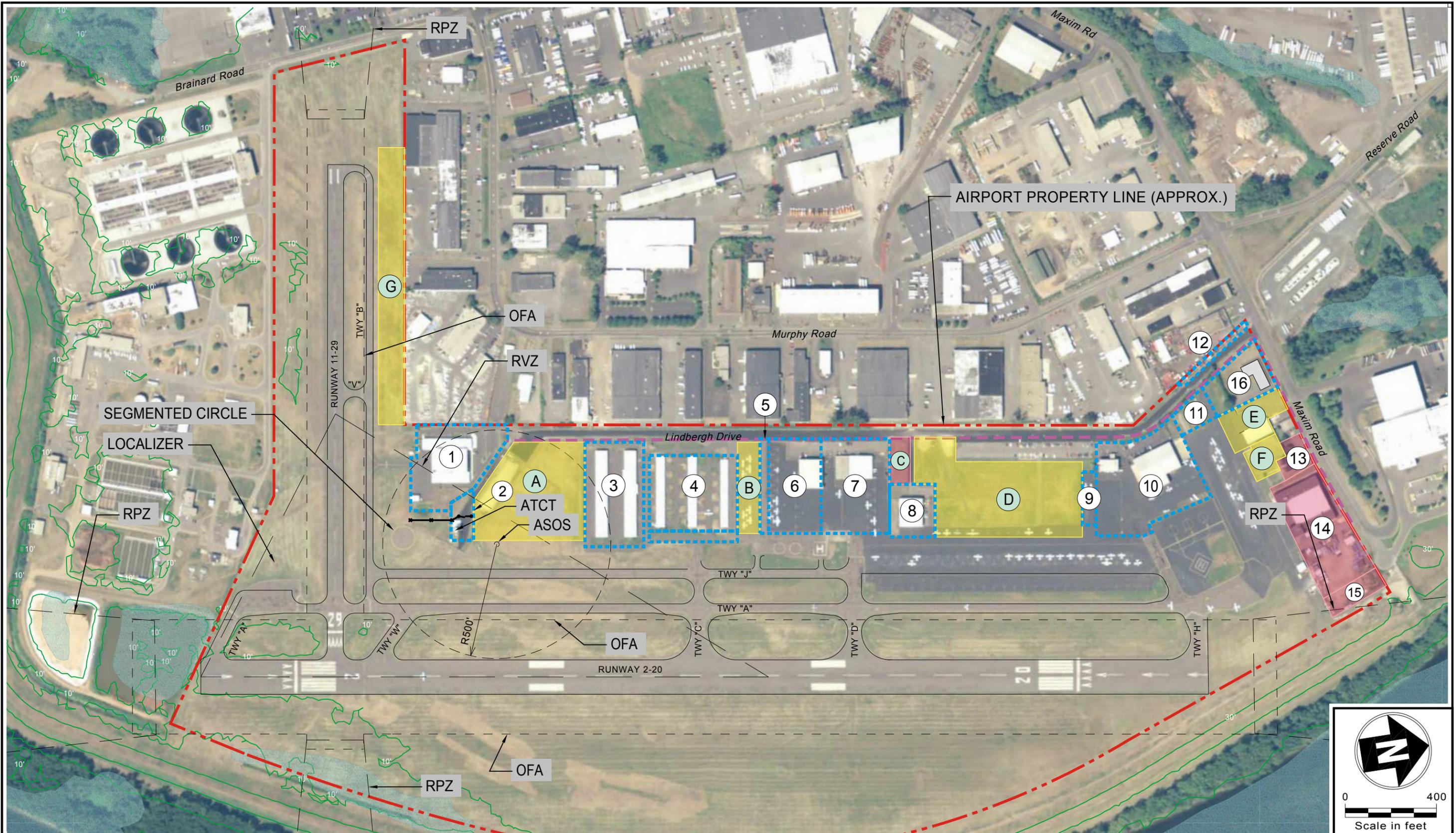
Parcel C – This undeveloped 0.4 acre parcel adjacent to the Parcel 8 driveway could accommodate either non-aviation development or an aviation dependent business. The parcel, located on Lindbergh Drive, contains ample vehicle parking along the east side of the road. Airfield access is not readily available, but could be provided by incorporating a portion of Parcel D.

Parcel D – Parcel D is a 5.5 acre open area that could be used for multiple conventional hangars and apron space. It has access to both Lindbergh Drive and the airport vehicle parking lot. The markings on the adjacent tiedown ramp will need to be modified to allow taxiway access for this parcel. This could be accomplished by removing a portion of the first row of tiedowns. This parcel may be subdivided if desired and the area with parking and road frontage used for non-aviation development. Any non-aviation development would require an FAA land release. Depending on the height of the structures, they may penetrate the transitional surface and would require an obstruction light.

Parcel E – Parcel E contains an older hangar that was previously used for maintenance and office space. Located along Maxim Road, it is 1.1 acres with both road and airfield access, and a vehicle parking lot.

Parcel F – Parcel F is a level, open area near Maxim Road and adjacent to the north apron. The site could support one small hangar. The tie-downs along this parcel would need to be removed to provide airfield access for this parcel. The parcel is 0.5 acres. Access to Maxim Road would require coordination with the lessees of Parcel 13.

Parcel G – Parcel G is a level, narrow open area along the existing airport property fence adjacent to Runway 11-29. It could support a series of small aircraft storage hangars. Based on the developer, this space could be improved for paved or turf tiedowns, one-sided T-hangars, or small conventional hangars. A vehicle access road from Brainard Road would need to be constructed. Depending on the height of the structures, they may penetrate the transitional surface and would require an obstruction light. The limitations and restricted access to this location reduce its potential as compared to the other sites.



LEGEND		AVIATION DEVELOPMENT
		AVIATION OR NON-AVIATION DEVELOPMENT
		WETLANDS

	POTENTIAL DEVELOPMENT SITE
	EXISTING PROPERTY LEASE
	UTILITIES

	AIRPORT PROPERTY LINE
	EXISTING LEASE LINE
	GROUND CONTOUR 240
	TOWN LINE

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POTENTIAL DEVELOPMENT AREAS

Hartford-Brainard Airport (HFD) Master Plan Update

0 400
Scale in feet

PROJECT NO. 21099
DATE: JAN. 2014
FIGURE 7-1

Parcels 13, 14, and 15 – Parcel 13 is currently the Airport Management and Starbase Offices and Parcels 14 and 15 are utilized by the State Police for hangar and storage. This area could be improved by rehabilitating the existing buildings or constructing new aircraft storage facilities. If Parcel 13 were redeveloped, it could be combined with Parcel F to provide an area for a conventional hangar and vehicle parking, or a second FBO.

Parcel 6 – The current leasers of Parcel 6 may consider constructing a T-hangar or small conventional hangars in place of a portion of the row of tiedowns to the south of their hangar. The parcel could still contain provide tiedowns for transient aircraft while increasing their potential hangar capacity. The site current provide 20 tiedowns, as well as helicopter parking positions.

7.3 Sustainability Review for Redevelopment

Any future development at HFD should follow the sustainability goals and initiatives outlined in the Introduction of this Master Plan and Section 5.5 Sustainability Recommendations. The CTDOT should ensure that buildings are built to be energy efficient and tenants promote recycling. Leadership in Energy and Environmental Design (LEED) construction certification (developed by the U.S. Green Building Council) would be encouraged. Sustainability should be core objective in design, site readiness, and building construction. Materials and procedures used by the future tenants should be compatible with the goals, such as green cleaning supplies, and landscaping should not be a wildlife attractant. At this time, it is not anticipated that any of the planned development will hinder the sustainability goals of the airport.