



Chapter Five

RECOMMENDED MASTER PLAN CONCEPT

The Airport Master Plan for Scottsdale Airport has evolved through the development of forecasts for future demand, an assessment of future facility needs, and an evaluation of airport development alternatives to meet those future facility needs. The planning process has included the development of draft working papers. These working papers have been presented to the Planning Advisory Committee (PAC), which is comprised of several constituents with an investment or interest in Scottsdale Airport. Presentations to the Scottsdale Airport Advisory Commission have also been made to inform and update its members. These diverse groups have provided extremely valuable input into the Master Plan. Additionally, a series of Public Information Workshops have been conducted as a part of this planning process providing the general public an opportunity to be involved and educated about the study.

In the previous chapter, several alternatives were considered and evaluated for the potential future development of airside and landside facilities at the airport. Each alternative offered a differing approach to facility development, and the layouts were presented for the purposes of evaluation. The alternatives have been refined into a single development concept for the Master Plan. This chapter describes narratively and graphically the recommended direction for the future use and development of Scottsdale Airport.

The Master Plan Concept, as shown on **Exhibit 5A**, presents the recommended configuration for Scottsdale Airport which preserves and enhances the role of the airport while meeting FAA design standards to the extent practicable. A phased program to achieve the recommended Master Plan Concept is presented in Chapter Six. When assessing development needs, this study has separated the



airport system into airside and landside functional areas. The following subsections describe the Master Plan Concept in detail.

Scottsdale Airport is classified by the Federal Aviation Administration (FAA) as a general aviation reliever airport. This designates the airport as an attractive alternative for general aviation aircraft to utilize and relieve congestion at busy commercial service airports, such as Phoenix Sky Harbor International Airport. Scottsdale Airport is also included in FAA's *National Plan of Integrated Airport Systems* (NPIAS). NPIAS airports are considered important to the national aviation infrastructure and are eligible for development grant funding from the FAA. The FAA has further categorized the airport as a "national" airport, which describes the facility as one that supports diverse economies by connecting communities to national and international markets. These airports have very high levels of activity and service a wide range of aircraft including large and sophisticated business jets. Only 84 airports in the United States have been given the national classification. At the state level, the Arizona Department of Transportation – Multi-Modal Planning Division (ADOT-MPD) – Aeronautics Group also classifies Scottsdale Airport as a reliever airport.

One of the objectives of the Master Plan is to equip decision-makers with the ability to either accelerate or slow development goals based on actual demand. If demand slows, development of the airport beyond routine airport safety and maintenance could be minimized. If aviation demand accelerates, development could be expedited.

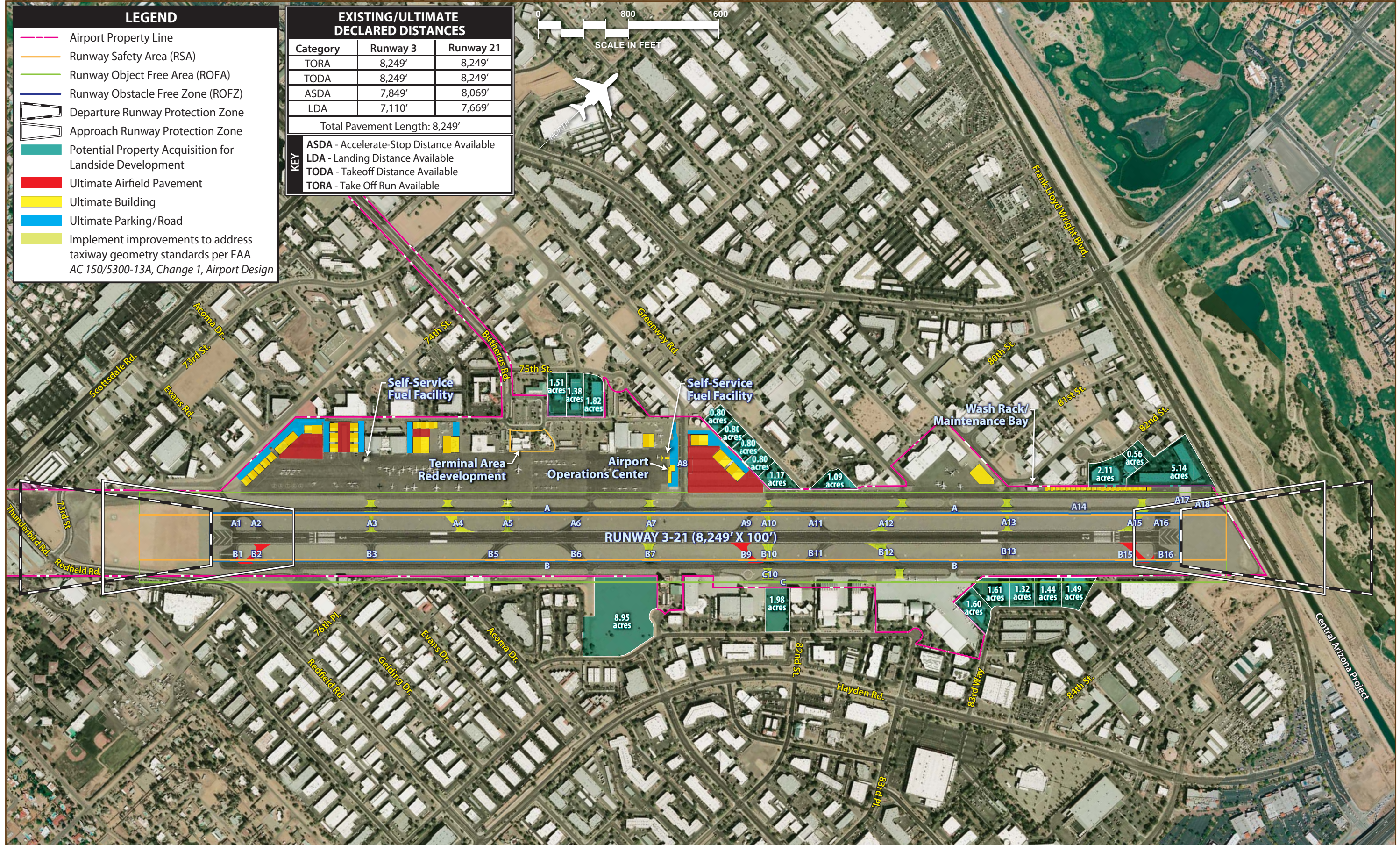
AIRSIDE DEVELOPMENT CONCEPT

The airside plan generally considers those improvements related to the runway and taxiway system and often requires the greatest commitment of land area to meet the physical layout of the airport. Operational activity at Scottsdale Airport is anticipated to grow modestly through the 20-year planning horizon of this Master Plan study and the airport is projected to continue serving the full range of general aviation aircraft operations.

RUNWAY CONFIGURATION

Scottsdale Airport is served by a single runway. Runway 3-21 is 8,249 feet long by 100 feet wide and is capable of handling the full array of aircraft in the general aviation fleet mix. Runway 3 has a 739-foot displaced threshold and Runway 21 has a 400-foot displaced threshold. As detailed in previous chapters, declared distances apply to Runway 3-21 in order to account for these displaced thresholds and to obtain addition safety area beyond each runway end. The declared distances are published and included on the Airport Layout Plan (ALP) that has been approved by the FAA.

Chapter Four introduced alternatives that would remove the displaced thresholds and relocate the landing thresholds to the physical end of the pavement for both Runway 3 and Runway 21. Declared distances would still apply to the runway system; however, additional landing distance would be made available on each runway.



LEGEND

- Airport Property Line
- Runway Safety Area (RSA)
- Runway Object Free Area (ROFA)
- Runway Obstacle Free Zone (ROFZ)
- Departure Runway Protection Zone
- Approach Runway Protection Zone
- Potential Property Acquisition for Landside Development
- Ultimate Airfield Pavement
- Ultimate Building
- Ultimate Parking/Road
- Implement improvements to address taxiway geometry standards per FAA AC 150/5300-13A, Change 1, Airport Design

EXISTING/ULTIMATE DECLARED DISTANCES

Category	Runway 3	Runway 21
TORA	8,249'	8,249'
TODA	8,249'	8,249'
ASDA	7,849'	8,069'
LDA	7,110'	7,669'
Total Pavement Length: 8,249'		

- KEY**
- ASDA - Accelerate-Stop Distance Available
 - LDA - Landing Distance Available
 - TODA - Takeoff Distance Available
 - TORA - Take Off Run Available

After further discussion with the City of Scottsdale Aviation Department and input from the PAC, it has been determined that the existing runway configuration is sufficient for aircraft activity at Scottsdale Airport. As a result, the existing displaced thresholds and published declared distances associated with Runway 3-21 are being recommended to remain the same for the ultimate configuration of the airfield system as represented on **Exhibit 5A**.

RUNWAY DIMENSIONAL STANDARDS

The FAA has established design criteria to define the physical dimensions of the runways and taxiways, as well as the imaginary surfaces surrounding them which protect the safe operation of aircraft at airports. These design standards also define the criteria for the placement of land-side facilities.

As discussed previously, the design criteria for airside development primarily relates to an airport’s critical design aircraft. The critical design aircraft is the most demanding aircraft or family of aircraft which currently, or are projected to, conduct 500 or more operations (takeoffs or landings) per year at an airport. Airport design factors include an aircraft’s wingspan, approach speed, tail height, and, in some cases, the instrument approach visibility minimums for each runway. The FAA has established the Runway Design Code (RDC) to relate these design aircraft factors to airfield design standards. The highest RDC is also considered the overall Airport Reference Code (ARC) for an airport.

Analysis in previous chapters concluded that the current RDC for Runway 3-21 falls in the D-III category. As detailed in

the alternatives analysis in Chapter Four, Scottsdale Airport cannot effectively meet RDC D-III design standards without substantial improvements, most notably the separation distance between Runway 3-21 and parallel Taxiways A and B to meet proper runway safety area (RSA) requirements. Through the Master Plan analysis, it has been deemed not practicable for Scottsdale Airport to effectively meet RDC D-III standards on the airfield.

In Chapter Four, an evaluation of improvements necessary to meet RDC D-II standards on Runway 3-21 was also completed. While certain design and separation standards were determined not practicable to be fully met, the corresponding RSA for RDC D-II can be fully met. This is important since the FAA has placed a higher significance on meeting RSA standards at airports.

Table 5A provides a summary of the planned RDC for Runway 3-21. In addition to the physical and operational components of an aircraft, the RDC also considers the instrument approach capabilities for the runway expressed in runway visual range (RVR) values. For Runway 3-21, the RVR value of 5,000 indicates an instrument approach with not lower than one-mile visibility minimums, which currently exists on the lowest minimums associated with certain instrument approach procedures serving the runway system. Note: The previously approved ALP (November 2013) calls for an existing and ultimate ARC D-II planning standard for Scottsdale Airport.

TABLE 5A Runway Design Code Scottsdale Airport	
Runway	Planned Runway Design Code*
3-21	D-II-5000
*The ultimate ARC for Scottsdale Airport is D-II based upon the RDC designation.	

While airfield elements should be planned to meet the applicable RDC design standards to the extent practicable, landside elements can be designed to accommodate specific categories of aircraft. For example, a taxilane into a T-hangar area only needs to meet the design standards for smaller single and multi-engine piston aircraft expected to utilize the taxilane and hangar area. It does not need to meet those standards for the larger aircraft representing the overall critical aircraft design for the airport.

MODIFICATION TO DESIGN STANDARDS

When certain standards and separation distances do not meet FAA criteria and it is determined that attempting to implement these standards may not be eco-

nomically practicable and feasible, the airport can request a Modification to Standard from the FAA. The following RDC D-II design and separation standards associated with Runway 3-21 are not met at Scottsdale Airport:

- Runway object free area (ROFA)
- Runway centerline to hold position location
- Runway centerline to parallel taxiway centerline separation
- Runway centerline to aircraft parking area

As a part of this Master Plan process, the City of Scottsdale Aviation Department has submitted a Modification to Design Standards request on the four standards stated above. **Table 5B** lists the requirement for each standard as well as the proposed modification.

TABLE 5B Modification to Design Standards Scottsdale Airport		
Modification to Design Standard Request	Standard/Requirement*	Modification Being Proposed**
Runway Object Free Area Width Length Beyond Runway End Length Prior to Threshold	Width - 800 ft. Length Beyond Runway End - 1,000 ft. Length Prior to Threshold - 600 ft.	Width - 630 ft. Length Beyond Runway 3 End - 470 ft. Length Beyond Runway 21 End - 500 ft.
Runway Centerline to Holding Position	250 ft.	152 ft. (Taxiways A and B)
Runway Centerline to Parallel Taxiway Centerline	300 ft.	250 ft. (Taxiways A and B)
Runway Centerline to Aircraft Parking Area	400 ft.	325 ft.
*Based on RDC D-II design standards with not lower than one-mile visibility minimums.		
**Existing airfield conditions.		
Source: Modification to Design Standards requests sent to the FAA in October 2014		

Based upon discussions between the FAA and the City of Scottsdale Aviation Department, the FAA has indicated that a Modification to Standard could be approved for each airfield condition outlined above. The remainder of this study (including the Master Plan Concept) pro-

ceeds under the assumption that the Modification to Design Standard requests will be approved. As such, **Exhibit 5A** depicts the ROFA, hold lines, parallel Taxiways A and B, and various aircraft parking areas as they currently exist for the ultimate airfield condition.

RUNWAY PAVEMENT STRENGTH

Runway 3-21 is strength rated at 45,000 pounds single wheel loading (SWL) and 75,000 pounds dual wheel loading (DWL). Aircraft can operate at the airport with the maximum gross weights in excess of 75,000 pounds and up to 100,000 pounds on a prior permission required (PPR) basis or if they operate with a placard certifying they are operating at or below 75,000 pounds. The City of Scottsdale has previously worked with the FAA to pursue the possibility of increasing the weight limit on Runway 3-21 from 75,000 pounds to 100,000 pounds DWL; however, it has been determined that increasing the pavement strength up to 100,000 pounds DWL would require the airport to meet D-III standards. Since it is not practicable for the airport to meet D-III standards, the existing pavement strength and the PPR program will continue during the planning period of this Master Plan.

TAXIWAY CONSTRUCTION

The Master Plan Concept proposes three new angled taxiway exits on the east side of Runway 3-21. Taxiway exits B2 and B15 are proposed near each end of Runway 3-21, allowing aircraft that need to “roll out” upon landing another opportunity to exit the runway system onto parallel Taxiway B and enhance airfield efficiency. These two taxiway exits would mirror existing Taxiway exits A2 and A15 on the west side of the runway.

Taxiway B9 is proposed in a midfield location approximately 3,700 feet from the Runway 3 displaced landing threshold. Similar to the other proposed taxiways, Taxiway B9 would provide an angled exit from the runway onto parallel Taxiway B. In doing so, the overall capacity of the air-

field could increase because aircraft needing to exit the runway can do so without having to come to a complete stop after landing. As depicted, Taxiway B9 would be constructed similar to the existing Taxiway A9 located immediately to the west side of Runway 3-21.

The proposed taxiways should be constructed to meet Taxiway Design Group (TDG) II standards. Taxiway shoulders, medium intensity taxiway lighting (MITL), and airfield guidance signs would be included with the implementation of these taxiways. It should be noted that Scottsdale airport traffic control tower (ATCT) personnel have indicated that the construction of proposed Taxiways B2, B9, and B15 would positively affect airfield capacity and efficiency.

TAXIWAY GEOMETRY ENHANCEMENTS

FAA guidance discourages direct taxiway access from an aircraft parking apron to the runway system. Configurations that allow for direct access from an apron to the runway have been targeted as they tend to increase risks for runway incursions. As highlighted on **Exhibit 5A**, the extensions of Taxiways A3, A4, A5, A7, A10, A12, A13, and A15 on the west side of the runway system provide direct connections between respective aircraft parking aprons and Runway 3-21. Similarly, the extensions of Taxiways B10/C10 and B12 on the east side of Runway 3-21 offer direct access to parking aprons.

Chapter Four proposed the relocation of certain taxiway connections which currently lead directly to the runway. In doing so, a pilot would be required to turn the aircraft prior to entering Runway 3-21 so as to increase situational awareness on the airfield. However, further discus-

sions with ATCT personnel indicate that the proposed relocation of these taxiway connections would negatively impact airfield efficiency and capacity. This would be due to a decrease in capacity and an increase in aircraft go-arounds given the extra time it would take for aircraft (especially larger jets) to make 90-degree turns to exit the runway and taxiway system before allowing another approaching aircraft with clearance to land.

Instead of relocating these taxiway connections, the Master Plan Concept proposes the implementation of elevated and/or in-pavement runway guard lights, which will maintain airfield efficiency and improve situational awareness. Runway guard lights can be installed at runway/taxiway intersections and are primarily used to enhance the awareness of the intersection. They consist of a pair of elevated flashing yellow lights (wig-wags) installed on either side of a taxiway and can also include a row of in-pavement yellow lights installed across the entire taxiway. Both are typically located at the runway hold line position.

At a minimum, these elevated and in-pavement runway guard lights should be implemented on those taxiways that provide direct access from an aircraft parking apron to Runway 3-21 as mentioned above. Furthermore, given the number of taxiways serving the runway system and the high volume of aircraft activity, elevated runway guard lighting could be installed on all entrance/exit taxiways to enhance overall safety and situational awareness on the airfield. It should be noted that the airport's Local Runway Safety Action Team (LRSAT), which includes participation from the FAA, recently recommended that the airport pursue the installation of runway guard lighting as an added safety measure.

Chapters Three and Four also introduced the runway's "high energy area" which is defined as the middle third of a runway. FAA guidance discourages the location of taxiways that would route aircraft directly across a runway in the high energy area since this is typically the portion of the runway where aircraft are moving rapidly for takeoff or landing. At Scottsdale Airport, Taxiways A7/B7 and A10/B10 provide for a runway crossing in the high energy area on Runway 3-21. According to ATCT personnel, these taxiways serve an important role in maintaining airfield efficiency and capacity. Since the ATCT provides positive ground control for taxiing aircraft, the removal and/or reconfiguration of these taxiways is not being proposed in the Master Plan Concept. The implementation of elevated and in-pavement runway guard lighting on these taxiways would further enhance safety and awareness in this area.

INSTRUMENT APPROACHES

As detailed in previous chapters, seven published instrument approach procedures are offered on Runway 3-21. Three of these approaches offer straight-in approach capabilities, and include two area navigation (RNAV) required navigation performance (RNP) approaches to Runway 3 and one RNAV (RNP) approach to Runway 21. The remaining four are "circling only" approaches to the runway system. There are limitations to the RNAV (RNP) procedures mainly due to very few aircraft being properly equipped to fly these approaches as well as extensive pilot training needed for this type of approach.

Advancements in global positioning system (GPS) technology continue to enhance the opportunity for improved in-

strument approach procedures at airports. Through the use of the GPS wide area augmentation system (WAAS), it is now possible to provide both vertical and lateral navigation approaches without the need for an airport to install ground-based navigational equipment. Ideally, GPS WAAS approaches could be implemented at Scottsdale Airport; however, due to congested airspace to the south (Phoenix Sky Harbor International Airport) and physical terrain to the north, a straight-in GPS WAAS approach is unlikely at this time.

The recommended plan for approach instrumentation at Scottsdale Airport is to maintain what is currently available and pursue any improvements that do not require expensive ground-based navigation equipment. The Master Plan Concept considers that Runway 3-21 will continue to be served by instrument approach capabilities with visibility minimums not lower than one mile. These approach minimums are adequate for Scottsdale Airport due to the small percentage of instrument flight rule (IFR) conditions (cloud ceilings below 1,000 feet above ground level (AGL) and visibility minimums less than three statute miles) reported at the airport.

RUNWAY PROTECTION ZONES

The runway protection zone (RPZ) is the trapezoidal area beyond the runway thresholds. The function of the RPZ is to protect people and property on the ground. Typically, this is achieved through airport ownership of the RPZs, although proper land use control measures, such as easements, are acceptable. The RPZs should be clear of any incompatible land uses or activities. Incompatible land uses have historically in-

cluded residences or places of public assembly such as churches, schools, hospitals, office buildings, and shopping centers.

As detailed in Chapter Four, all runway ends have two RPZs: an approach RPZ and a departure RPZ. For runways with a displaced threshold, which is the case for each end of Runway 3-21 at Scottsdale Airport, the approach and departure RPZs will be located separately. **Exhibit 5A** depicts the location of the approach and departure RPZs beyond each end of Runway 3-21.

The FAA recommends that the airport sponsor exercise control of the RPZ property. Portions of the RPZs associated with each end of Runway 3-21 currently extend beyond the airport property line. On the south side of the runway, approximately 3.94 acres of land not under the control of Scottsdale Airport is encompassed within the approach and departure RPZs. The approach and departure RPZs on the north side of the runway extend over approximately 24.42 acres currently located outside of airport property. When fee simple ownership is not feasible, positive land use control measures should be implemented in order to protect the airport from encroachment by incompatible land uses or obstructions.

In September 2012, the FAA published *Interim Guidance on Land Uses within a Runway Protection Zone*. The guidance addresses actions necessary for new or modified RPZs. Any action that would introduce new land use incompatibilities into the RPZ will have to be specifically reviewed and approved by the FAA.

Since the Master Plan Concept does not propose any changes to the runway system (length, relocation of displaced

thresholds, declared distances, instrument approach visibility minimums, etc.) at Scottsdale Airport, the approach and departure RPZs associated with each runway end are planned to remain in their existing location. Furthermore, those portions of land within the RPZs that are not under direct ownership of the airport do fall within the land use and zoning jurisdictions of the City of Scottsdale.

The City of Scottsdale has worked to ensure that land uses in the vicinity of the airport are compatible in nature by implementing height and hazard zoning for the protection of the airport. The Aviation Department and the City of Scottsdale should continue to monitor activity within the RPZs serving each runway end and maintain them free of incompatible land uses to the extent practicable.

LANDSIDE DEVELOPMENT CONCEPT

The primary goal of landside facility planning is to provide adequate aircraft storage space to meet forecast needs, while also maximizing operational efficiencies and land uses. Also important is identifying the overall land use classification of airport property in order to preserve the aviation purpose of the airport well into the future. Achieving these goals yields a development scheme which segregates aircraft activity levels while maximizing the airport's revenue potential. **Exhibit 5A** presents the planned landside development for the airport.

There are an unlimited number of potential facility layout concepts that could be considered. Several potential layouts were presented in the previous chapter and proposed landside development pre-

sented in the Master Plan Concept is a compilation of the alternatives presented, as well as further refinement based upon discussions with the Aviation Department, PAC, Scottsdale Airport Advisory Commission, and the general public.

The plan presented considers the potential for aviation development space located in close proximity to existing facilities. It also follows the design philosophy of co-locating facilities which would be intended for similar levels of aviation activity.

The major landside issues addressed in the Master Plan Concept include the following:

- Construct additional aircraft storage hangars in existing development areas as well as through the redevelopment of certain parcels on airport property.
- Plan for the potential redevelopment of the terminal area.
- Separate vehicles from the aircraft operational areas by providing dedicated vehicle parking for new and existing hangars where feasible.
- Construct aviation support facilities to include an airport operations center, self-service fuel facility, and aircraft maintenance bay.
- Identify various parcels adjacent to airport property for potential acquisition to be utilized for future airport development.

AIRCRAFT HANGARS

Chapter Four presented several options for locating new hangar facilities at

Scottsdale Airport. The landside development concept on **Exhibit 5A** establishes the location of certain hangar types by utilizing limited airport property to best meet the needs of future aviation demand. The plan depicts primary hangar development/redevelopment items that include:

- Redevelopment potential within the Air Commerce Center to include a row of five executive hangars and two larger hangars that could also accommodate multi-level office facilities. This redevelopment concept would include additional aircraft parking apron space that could help with staging aircraft utilizing the larger hangars.
- Redevelopment of the City of Scottsdale’s T-hangar/covered tiedown area to include six separate executive hangars.
- Development and redevelopment potential within the Landmark Aviation leasehold to include three large conventional hangars and a linear box hangar complex.
- Redevelopment potential within the Greenway hangar complex to include three large conventional hangars and

additional apron space for aircraft parking and staging.

- Construction of a conventional hangar within Signature Flight Support’s leasehold.
- Construction of approximately 20 linear box hangars on the north aircraft parking apron (Kilo Ramp).

Table 5C presents the total hangar area proposed on airport property in the landside development concept. As can be seen from the table, the Master Plan Concept provides over 500,000 square feet of hangar space. In Chapter Three, it was estimated that approximately 950,000 square feet of hangar space would be needed to accommodate potential long term demand for general aviation aircraft activity. Given the limited amount of airport property, it will be difficult to satisfy long term hangar storage needs while also accommodating other aircraft demands, namely aircraft parking apron space. Fortunately, hangar storage demands are also met within the Scottsdale Airpark, which is estimated to currently provide approximately 837,800 square feet of hangar area made up of a variety of hangar types.

TABLE 5C Aircraft Hangar Area in Master Plan Concept Scottsdale Airport	
Hangar Type	Hangar Area (s.f.)
Existing Hangars that Remain in Master Plan Concept	
Executive Hangar	25,900
Conventional Hangar	223,600
Proposed Hangars in Master Plan Concept	
T-Hangar/Linear Box Hangar	47,750
Executive Hangar	53,900
Conventional Hangar	150,900
Total Hangar Area in Master Plan Concept	502,050*
*Estimated hangar area that would be located on airport property as a result of the Master Plan Concept. This does not include hangar space located within the Scottsdale Airpark.	
Source: Airport records; Coffman Associates analysis	

The majority of hangar space proposed in the Master Plan Concept consists of executive and conventional hangars. This would help accommodate the forecasted growth in business aviation that is expected to utilize Scottsdale Airport through the long term planning horizon. These hangars typically cater to commercial general aviation services associated with fixed base operators (FBOs) or specialized aviation service operators (SASOs). They can also accommodate corporate flight departments or multiple aircraft storage. While these hangars are typically associated with larger turboprop and business jet storage, smaller single and multi-engine piston aircraft can also be stored in these hangar facilities.

Aircraft hangars used for smaller aircraft typically involve T-hangars and linear box hangars. To continue accommodating smaller aircraft storage needs, the airport should consider the acquisition of various properties (to be detailed later in this chapter) that could support T-hangar and linear box hangar development. The Aviation Department could fund the construction of these storage hangars using a full-cost recovery method charging market rate rental fees. Note: The Aviation Department will make an effort to maintain the current number of designated small aircraft hangar/covered tiedown positions available at Scottsdale Airport as areas on the airport are redeveloped during the course of the Master Plan.

TERMINAL AREA REDEVELOPMENT

The existing terminal area is centrally located on the west side of the airfield and consists of a two-story airport terminal building and the Aviation Business Center which houses the U.S. Customs and Border Protection (CBP) offices. The termi-

nal building includes approximately 17,970 square feet of space that accommodates the City of Scottsdale Aviation Department, a waiting lobby, restroom facilities, rental car counters, and a restaurant. The Aviation Business Center is located immediately north of the terminal building and is home to a mix of aviation and non-aviation related businesses. The Master Plan Concept calls for the redevelopment of the terminal area that could improve its use and efficiency by providing additional office space, a new restaurant, meeting facilities, and CBP offices, all which provide opportunities to enhance airport revenue.

VEHICULAR ACCESS

In order to enhance safety and security on the airfield, the segregation of vehicles and aircraft operations is considered on the Master Plan Concept. The landside concept for Scottsdale Airport has been developed to reduce the need for vehicles to enter the aircraft operational area (AOA). Dedicated vehicle parking areas, which would be located outside the planned perimeter fence, are considered for all potential hangars that could attract commercial general aviation activities.

Segregated vehicle access to the redeveloped Greenway hangar complex area would be necessary if this area were to accommodate larger-scale aviation operations. It will also further support FAA Advisory Circular (AC) 150/5210-20, *Ground Vehicle Operations on Airports*, which provides guidance on the recommended segregation of vehicle and aircraft operational areas. Currently, this area is accessed through a controlled-access gate at the north end of Airport Drive which requires vehicles to cross Taxiway A8. As shown on **Exhibit 5A**, the

potential acquisition of land adjacent to the north side of this complex could allow for access from Greenway Road.

The linear box hangars being proposed on the north aircraft parking apron could be accessed by traversing portions of the parking apron. This is acceptable for activity associated with small private aircraft storage. In the event that property would be acquired adjacent to the northwest side of these hangars, vehicle access could be granted via this redeveloped area.

AVIATION SUPPORT FACILITIES

The Master Plan Concept depicts the location of the airport operations center adjacent to the north side of the main aircraft parking apron. This facility will accommodate airport operations and maintenance personnel and equipment. Construction of the operations center is scheduled to begin by the spring of 2015.

A self-service fuel facility for 100LL is planned within the Landmark Aviation leasehold toward the south side of the main aircraft parking apron. This area currently accommodates underground fuel storage that can be tied into the self-service fuel facility. This facility would also consist of a fuel dispenser and credit card reader to allow aircraft owners the ability to fuel their aircraft. Landmark Aviation is planning to implement self-service fueling capabilities by the summer of 2015. This will provide a significant amenity for smaller single and multi-engine piston aircraft.

A second self-service fuel facility is also depicted on the Master Plan Concept. In the event that the City of Scottsdale Aviation Department determines that self-

service fueling provided by Landmark Aviation does not provide a marketable and cost-effective option for piston-powered aircraft that meets the needs of the customer base at the airport, it could initiate a process for a second self-service fuel facility offered by another private entity. The proposed location of this second facility is on the north side of the main aircraft parking apron adjacent to the airport operations center.

An enclosed aircraft wash rack bay is located on the north aircraft parking apron, approximately 800 feet southwest of the Runway 21 displaced threshold. A small pilot lounge is currently co-located with the wash rack and sits adjacent to the north side of the facility. The Master Plan Concept proposes the removal of the rarely utilized pilot lounge (except for the restrooms) and replaces it with a second enclosed bay that could accommodate minor aircraft maintenance/cleaning by aircraft owners.

ULTIMATE LAND ACQUISITION

Chapter Four identified 19 separate parcels adjacent to the east and west sides of the airport which could be further evaluated/considered for acquisition in order to enlarge the footprint of the airport. As previously stated, it can be advantageous for an airport to pursue property acquisition in order to support increased aviation demands as well as to provide a buffer from non-aviation land uses that may be incompatible with airport operations. For Scottsdale Airport, the acquisition of property could especially help accommodate forecast growth through the long term planning horizon of the Master Plan by providing space for additional hangar development and other aviation activities.

As presented on **Exhibit 5A**, the 19 parcels identified in Chapter Four have been included on the Master Plan Concept for potential acquisition for future landside development. The parcels range in size from 0.80 acres to 8.95 acres for an approximate total of 36.37 acres. An 8.95-acre parcel and a 1.98-acre parcel on the east side of the airport are the only vacant parcels and could satisfy future aviation demand without having to invest in significant redevelopment costs. All other parcels identified contain a mix of commercial/industrial uses and would need to be redeveloped in order to satisfy aviation activities.

It should be noted that the most recently approved ALP (November 2013) includes the ultimate acquisition of certain parcels identified on the Master Plan Concept. The 8.95-acre parcel on the east side of the airport and the three parcels (1.51 acres, 1.38 acres, and 1.82 acres) in the vicinity of the terminal area are depicted as ultimate airport property on the ALP. Furthermore, the five parcels adjacent to the Greenway hangar complex are called out for potential acquisition in the airport's capital improvement program (CIP), which has been coordinated with the FAA and ADOT-MPD – Aeronautics Group. The CIP will be further detailed in Chapter Six.

SUMMARY

The Master Plan Concept has been developed with significant input from the PAC.

The PAC includes representation from the City of Scottsdale Aviation Department, FAA, ADOT-MPD – Aeronautics Group, airport businesses, and airport users. The Scottsdale Airport Advisory Commission has provided additional input to help guide the planning process. This plan helps to position Scottsdale Airport to accommodate and best meet the needs of anticipated growth over the next 20 years.

The recommended development plan is designed to help the City of Scottsdale in making decisions on the future growth and development of Scottsdale Airport. The plan presents an airfield facility that fulfills aviation needs for the airport, while conforming to safety and design standards to the extent practicable. It also provides a landside complex that can be developed as demand dictates.

Flexibility will be very important to future development at the airport, as activity and growth may not occur as predicted. The development plan provides airport stakeholders with a general guide that, if followed, can maintain the airport's long term viability and allow the airport to continue to provide air transportation service to the region. The next chapter of this Master Plan will consider strategies for funding the recommended improvements and will provide a reasonable schedule for undertaking the projects based on safety and demand over the course of the next 20 years.