

Moving Forward

Blue Grass Airport

AIRPORT MASTER PLAN UPDATE (2013)

Our Planning Partner:



CRAWFORD, MURPHY & TILLY, INC.

In association with:

HDR, Inc. GRW, Inc. Integrated Engineering, Inc. Unison Consulting, Inc. Ailevon, LLC

2013 Master Plan Update





It was identified early on that the 2013 Master Plan Update would be developed with a focus on key development areas since a comprehensive update had been recently completed in 2005. Since that time, Blue Grass Airport has implemented a number of the recommended infrastructure improvements to increase capacity and comply with Federal Aviation Administration (FAA) standards.

The 2013 Master Plan identified the following development areas for consideration:

- Airfield Development (Runways & Taxiways)
- Passenger Terminal Area (Terminal Building, Parking Facilities, Etc.)
- Aircraft Storage Facilities (Corporate & General Aviation Users)
- Support Facilities (Public Safety, Airport Maintenance, Etc.)
- East Development Area (Aeronautical & Non-Aeronautical)

As an integral element of the planning process, a number of airport stakeholders were engaged to solicit input, review concepts, and concur with recommended development initiatives. Stakeholders included:

- Airport Staff (Operations, Maintenance, Public Safety, Engineering, Etc.)
- ♦ Lexington Air Traffic Control Tower (LEX-ATC) Management
- * Federal Aviation Administration (FAA) Airport District Office Memphis
- General Aviation Users
- Fixed Base Operator (FBO)
- Aircraft Maintenance
- Lexington-Fayette Urban County Government Planning & Corridors Commission
- Keeneland Management
- ♦ General Public (Open House Held November 13, 2012)
- ♦ Fayette Alliance
- Save Our Irreplaceable Land (SOIL)
- Neighborhood Associations

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Section One:

Aviation Demand

AIRPORT ROLE & SERVICE AREA

Blue Grass Airport is a small hub primary airport as defined by the Federal Aviation Administration. It provides aviation facilities for commercial air passenger, cargo, private and military users of the Lexington-Fayette metropolitan area and central Kentucky. The Airport is served by the following commercial air carriers with an average of 32 daily departures and 13 non-stop destinations:

- ♦ Allegiant Air (G4)
- American Eagle (AA)
- Delta Air Lines (DL)
- United Express (UA)
- ♦ US Airways (US)

Other airports within the region seek to compliment facilities and services offered at Blue Grass to serve the region and state. The FAA defines a typical airport service area as 30-minute drive time for general aviation and 60-minute drive time for commercial passenger service. While those thresholds are useful in defining an airport's general service area, in reality, other factors such as services offered, pricing, facility condition, etc. will also influence a person's airport choice. In an effort to identify the Airport's Catchment Area for commercial



airline service, information contained in a 2011 air service market assessment was utilized combined with drive time modeling software.

COMMERCIAL AIRLINE SERVICE

In addition to the Terminal Area Forecast (TAF) issued by FAA, a market specific forecast analysis was completed as part of the planning process to assist in determining demand for passenger facilities (terminal building, vehicle parking, etc.). To guide the decision making process, a three "tier" approach was identified, providing a detailed forecast of aviation demand which took into consideration a number of airline factors.

The aviation demand forecasting process utilized the 2011 Passenger Leakage Study as the foundation and incorporated market conditions (catchment area, competing airports, airline hub strategies, and changes in airline service offerings). **Appendix A** provides additional information regarding aviation demand projections.

AIR SERVICE DEMAND SCE-NARIOS

Three (3) air service scenarios were developed to provide a range of aviation demand the airport may realize over the 20-year planning. As with any forecast, there are a



number of influences which can affect the accuracy of projections. The following key conclusions were incorporated into each scenario:

- Carriers with less than daily service at Lexington have been successful at capturing the catchment area traffic and have generated high load factors. Continued growth in this business model is anticipated at Lexington.
- Capacity to major hubs will largely be influenced by any future mergers, as well as the hub carriers' international reach beyond their hubs.
- With the price of fuel expected to continue to be high, the trend of fewer departures, though on larger aircraft, may continue.
- Based on the conclusions presented, Lexington's traffic is anticipated to grow at an annual rate of 1% per year.

The aviation demand scenarios developed through this process were coordinated with key airport stakeholders including airport management and the FAA. The airport received FAA approval of the aviation demand projections on August 3, 2012 (see Appendix A).

High Demand Scenario (Built from Medium Scenario)

The high demand projection takes into account an increase in Allegiant service to five time weekly service to all nonstop Florida cities in 2014. In 2023, Allegiant opens a new operations based in the Eastern Region and increase service to Lexington through non-Florida destinations. In 2028, an Ultra-Low Cost Carrier (Spirit or Frontier) introduces service at Lexington.

Medium Demand Scenario

Overall, the medium demand scenario assumed seat capacity would remain flat while frequency is reduced due to aircraft equipment upgrades. Passenger enplanements are projected to grow at an annual rate of 1% with no significant change in airline destinations currently served from Lexington. In addition, it was assumed that in 2013, Allegiant backfills the departure of AirTran to the Orlando, Florida.

Low Demand Scenario (Built from Medium Scenario)

The low demand scenario took into account potential service reductions at Lexington and new service offerings at competing airports. In 2017, Delta eliminates service to Minneapolis/St. Paul due to economics associated with the regional jet and fuel prices. In 2020, low-cost carriers increase service offerings at Nashville, Cincinnati, and/or Columbus therefore increasing "leakage" from the Lexington catchment area.



The following range of aviation demand was projected for passenger enplanements.

GENERAL AVIATION

To assist in the facility planning process, a general aviation demand analysis was completed. In general, there are a number of influences that affect the level of demand by this user group. The planning process identified historic trends, regional demographics, FAA projections, industry trends, and tenant interviews.

TRENDS & INFLUENCES

The piston fleet is projected to see limited growth throughout the planning period. Multi-engine piston aircraft are anticipated to decline due to operating economics and insurance requirements. New orders will likely be replacements and therefore there will be a limited net increase in the active piston fleet.

The turbine (jet) fleet is anticipated to see modest to significant growth throughout the planning period. Realizing that the economic downturn had a direct effect on aviation demand, hours flown by turbine aircraft increased 29% from 2001 to 2010. Growth in the turbine fleet is anticipated due to a number of factors including a wide range of aircraft options, schedule flexibility, security requirements at commercial service airports, productivity increases, etc.

National trends indicate that flight training is a potential growth opportunity due to projected pilots shortages and demand for qualified pilots. A re-





cent change in the minimum hours required for pilots to be hired at commercial airlines is anticipated to increase the projected pilot shortage during the planning period. While the current flight training environment is stagnant due to the economy, it does appear to be a growth opportunity in the near future.

Fractional ownership programs have seen significant growth in participation since 2000. While the recent economic downturn has reduced the demand for this type of service, all indications are that fractional ownership programs will continue to see significant growth throughout the planning period. A review of aviation demand over the past two years indicates that there is a strong utilization of fractional ownership programs by users in the Lexington area.

Through the planning process, additional key considerations were identified and taken into account in the general aviation demand projections. Lexington is the predominant corporate aviation activity center within the region. This is likely attributed to the infrastructure and services provided at the airport (runway length, air traffic control, fire and police protection, snow removal, etc.). There is competition for general aviation traffic (smaller aircraft) at surrounding airports within approximately 30 miles. Additional demand factors taken into account include a waiting list for single aircraft storage units and competitive factors (fuel prices, hangar rents, etc.)

DEMAND PROJECTIONS

The following general aviation demand projections were developed as part of the planning process:

- Limited Growth in Piston Market (Economy, Discretionary Spending, Cost to Operate Aircraft, Etc.)
- Strong Growth in Corporate Jet Ownership & Utilization
- Tenant Interviews
 - No Significant Changes in Aircraft Fleet Mix
 - Potential for Expansion of Aviation Services (Flight Training, Maintenance, Etc.)
- Conservative Growth Projections (Annual)

Total based aircraft are projected to grow from 117 to 159 during the 20-year planning period.



Section Two

Airfield Development

During the master plan process, recommendations for airfield facilities were identified and coordinated with multiple stakeholders. Following stakeholder input and coordination, a recommended development program for airfield improvements was identified and presented to airport management.

KEY FINDINGS & CONSIDERATIONS

- Taxiway Safety Enhancement Program (TSEP): Implementation of a multi-year program to enhance operational safety and standards with regards to the movement of aircraft to and from the runway environment.
- Runway Capacity: Runway 4-22 & Runway 9-27 provide adequate capacity to accommodate projected aviation demand over the 20-year planning period.
- Navigational Aids: Existing navigational aids provide an adequate level of service to aircraft operators.

EXISTING AIRFIELD FACILITIES

The Airport maintains a number of airfield related facilities to accommodate a wide range of aircraft operations including runways, taxiways, aprons, lighting, and navigational aids.

RUNWAY SYSTEM

Runway 4-22 is the Airport's primary and commercial runway which accommodates the full range of aircraft that operate at LEX. The runway was resurfaced with bituminous pavement in the fall of 2006, as part of a major, four-phase runway safety area improvement project at the

Airport. Runway 9-27, the Airport's new crosswind runway, was opened to traffic in September of 2010. The \$29 million dollar project was constructed to accommodate general aviation traffic.

Aircraft Parking Aprons

Air Carrier Ramp

The existing air carrier ramp is designed to accommodate ten (10) aircraft gates. In addition to the terminal facility, the



freight building which houses Custom and Border Protection (CBP) and Tex Sutton are located on the air carrier ramp and are considered to be within the Security Identification Display Area (SIDA).

Main General Aviation Ramp

Due primarily to topographic constraints and roadway access, the east side of Runway 4-22 has historically been the default location for the construction of aviation and support. Located to the south of the airline passenger terminal, the main general aviation ramp provides an expansive and varying array of facilities to support aircraft and airport operations.

Runway 9-27 Ramp Area

The development of Runway 9-27 established an additional aircraft parking ramp primarily utilized by general aviation aircraft. The ramp area can be accessed by vehicle from a nearby service road located south of the apron and connects to Versailles Road.

RUNWAY CONSIDERA-TIONS

BACKGROUND/NEED

Overall, the existing airfield provides adequate capacity to accommodate aviation demand projected over the 20-year planning period. The following section will provide additional detail regarding each runway.



RUNWAY 4-22

Runway 4-22 serves as the primary commercial service runway and is designed to accommodate a wide range of aircraft operations. At a length of 7,003', Runway 4-22 can facilitate flights to a majority of U.S. destinations and key international destinations (Canada & Caribbean).

Condition

In 2012, the airport completed a comprehensive Pavement Management Plan (PMP) which included a Pavement Condition Index (PCI) analysis. Based on the PMP, Runway 4-22 was identified to have a PCI value ranging from 56-94. The Airport has programmed a Runway 4-22 rehabilitation project <u>(\$6± million)</u> in 2018 or 2019 subject to funding resources.



Runway Safety Area

In 2006, the Airport completed a significant Runway 4-22 construction program in which each runway end was adjusted in physical location to provide a minimum Runway Safety Area (RSA) 600' in length and 500' in width as approved by FAA based on a detailed RSA determination. The RSA is an airport design standard intended to protect life in the event that an aircraft undershoots or overshoots the runway environment. The RSA is comprised of multiple design standards (lateral grades, longitudinal grades, height of objects, etc.).

While Runway 4-22 is currently designed with a minimum RSA dimension of 600' L x 500' W, it does not



meet the full RSA standard. Consequently, the airport implemented the use of declared distances to meet RSA standards. The airport completed a Runway 4-22 RSA Determination Update in October 2011 to analyze the feasibility of Engineering Material Arresting System (EMAS) beds on Runway 4-22. The EMAS beds are constructed from high energy absorbing materials that reliably and predictably "crush" under the weight of an aircraft. In the event that an aircraft exits the runway environment, the EMAS bed is designed to decelerate a rolling aircraft in an emergency through the material and minimize the potential for structural damage to the aircraft.



The 2011 RSA Determination identified a planning level budget of <u>\$10 to \$15 million</u> to install EMAS on Runway 4-22 depending on the final design selected for implementation. Recent correspondence received by the Airport indicates that the FAA will require the installation of EMAS on Runway 4-22 when the pavement is rehabilitated (anticipated in 2018 or 2019).

Taxiway "A" Condition

Taxiway "A" provides the primary access route between aircraft parking aprons and Runway 4-22. While a significant portion of Taxiway "A" will be reconstructed during the Taxiway Safety Enhancement Program (TSEP), approximately 3,500′ of the parallel taxiway will need to be rehabilitated over the 20-year planning period.

Taxiway "A" currently does not meet airport design standards for runway to taxiway separation. In accordance with FAA airport design standards, a separate 400' separation distance between Runway 4-22 and Taxiway "A" is required. The airport maintains a Modification to Design Standard for this condition due to site constraints which prohibit the relocation of Taxiway "A". In addition, the airport maintains a Letter of Agreement (LOA) with the Lexington ATCT related to the movement of large aircraft on Taxiway "A".

Runway Length

As previously identified, Runway 4-22 provides sufficient capacity to accommodate projected demand over the 20-year planning period. As part of the planning process, the length of Runway 4-22 was analyzed. As shown in the table on the next page, Runway 4-22 can accommodate a wide range of aircraft operating on typical stage lengths at its current length of 7,003 feet. For reference, Las Vegas to Lexington is approximately 1,460 miles in stage length.

Typical Aircraft Type	500 Mile Stage Length	1,000 Mile Stage Length	1,500 Mile Stage Length
Airbus 319/320	4,900'	5,400'	5,900'
Boeing 737-700	5,000'	5,900'	6,500'
Boeing 757-200	5,000'	5,400'	6,100'
Bombardier CRJ-200	6,000'	6,800'	N/A
Bombardier CRJ-700	4,800'	5,200'	5,500'
Embraer E-190	4,750'	5,250'	5,900'
McDonnell Douglas MD-83	4,500'	5,500'	6,100'
Source: Aircraft Manufacture Manuals, CMT Analysis (General Planning Only)			

Paved Shoulders

In accordance with FAA airport design standards, pavements which are designed to support Runway Design Group III aircraft are recommended to provide paved shoulders. Overall, paved shoulders are designed to minimize the potential for Foreign Object Debris (FOD) ingestion into aircraft engines. In addition, paved shoulders enhance erosion control and snow removal operations.

To assist in determining the need for paved shoulders, a review of the anticipated fleet mix to operation on Runway 4-22 was conducted. The most demanding aircraft anticipated to operate regularly on Runway 4-22 during the 20-year planning period is a group of aircraft comprised of the Boeing 737-700/800, Airbus 319/320, and the Embraer 170/190 (RDG III). While operations by larger aircraft may occur, they are anticipated on a limited basis. Therefore, an analysis of the Boeing 737-700/800, Airbus 319/320 and Embraer 170/190 family of aircraft operating on Runway 4-22 and Taxiway A determined that the engine nacelles would be located inside the taxiway pavement edge without paved shoulders.

Given the analysis conducted with regards to the location of engine nacelles, paved shoulders are not recommend for implementation on Runway 4-22 or Taxiway A, Taxiway C and Taxiway D.



RUNWAY 9-27

Runway 9-27, the Airport's new general aviation crosswind runway, was opened to aircraft in 2010. In accordance with FAA airport design standards, Runway 9-27 is currently designed to accommodate Runway Design Group (RDG) B-II aircraft. It is recommended that the Airport maintain a long-term objective to extend Runway 9-27 to a length of 5,000' to accommodate small to midsize corporate aircraft (RDG C-II).

Runway Extension (1,000')

To accommodate future demand, it is recommended that a 1,000' extension to Runway 9-27 be identified during the 20-year planning period.

The table below identifies runway length required based on the anticipated aircraft fleet mix to operate on Runway 9-27 throughout the planning period. The extension to Runway 9-27 will provide a usable length of 5,000' which will support a wider range of aircraft operations.

General Aviation Fleet Mix	Useful Load	Standard Day	Hot Day (83°)		
Piston Aircraft (Less Than 10 Seats)	N/A	3,600'	3,950'		
Turboprop (10 or More Seats)	N/A	3,850'	4,300'		
Corporate Aircraft	60%	4,800'	5,500'		
Source: FAA Advisory Circular 150/5325-4B, CMT Analysis					

The introduction of larger corporate aircraft utilizing Runway 9-27 on a regular basis will require a change in FAA design standards. For planning purposes, Runway 9-27 has been sited to comply with RDG C-II standards in the future condition. It should be noted that implementing RDG C-II standards on Runway 9-27 will require the relocation of existing airport access road and RSA grading. Due to existing site constraints, the Airport will be required to receive Modification to

Design Standards approval for the relocated airport access road and the perimeter road (encroachment of the future Runway Object Free Area). Anticipated development cost of **§11.0 million**.

The proposed extension to Runway 9-27 has been identified in previous planning documents including the Environmental Assessment (EA) which was completed for the Runway 9-27 development program.



TAXIWAY SYSTEM

This Master Plan Update identifies improvements to the existing taxiway system to enhance aircraft operational safety and improve the efficiency of aircraft movements.

BACKGROUND/ANALYSIS

Runway 4-22 (commercial service runway) is served by a number of taxiway connectors to allow efficient aircraft movements to and from the runway environment. However, under the current configuration, aircraft movements are constrained at several locations creating safety and operational concerns. These concerns include:

- Taxiway A & Taxiway C "Choke" Point
- Line of Sight (Taxiway C)
- Non-Standard Parallel Taxiway System
- * Taxiway A & Taxiway C Movement Area
- Nonstandard Connecting Taxiway Geometry
- ♦ Direct Access from Aircraft Apron to Runway 4-22
- Access Point on Airfield of Vehicular Traffic
- ♦ Letter of Agreement (LOA) for Large Aircraft

Due to existing airfield constraints, a Letter of Agreement (LOA) for the movement of large aircraft is in place to ensure all Runway Safety Areas (RSA) are maintained. Large aircraft on Taxi-

way A "penetrate" the Runway 4-22 RSA and therefore the runway must be cleared of aircraft prior to approving the movement of large aircraft on Taxiway A. Therefore, ATC has limited pavement which can be utilized to facilitate the movement of large aircraft.



ALTERNATIVE CONCEPTS

The master plan process identified three (3) taxiway concepts which were presented to airport stakeholders. In general, each concept was developed to take into account a wide range of design considerations. Concepts developed were based on the following key considerations:

- Realign a Portion of Taxiway "A" 400' Offset from Runway 4-22 (Airport Design Guidance)
- Designed to Accommodate a Wide Range of Aircraft (Boeing 737-700/800, Boeing 757-200, Boeing 747-400, Airbus 319/320, Embraer 170/190)
- Assumed No Passenger Terminal Expansions would occur over the 20-year Planning Period
- Taxiway Configuration Designed in Compliance with FAA Airport Design Standards (Advisory Circular 150/5300-13A)
- Development of a New Aircraft Rescue & Firefighting (ARFF) Station with Direct Access to Runway 4-22 and to the Passenger Terminal
- Relocation of the Existing Snow Removal Equipment (SRE) Complex to Facilitate Taxiway System Enhancements

Concept #1 – Taxiway "G" Extension

The previous Airport Layout Plan (ALP) identified the extension of Taxiway "G" to the main general aviation aircraft parking apron. This concept was developed based on previous ALP recommendation and updated to meet current FAA airport design guidance. The extension of Taxiway "G" was not carried forward in the planning process due to concerns associated with FAA guidance identified in Engineering Brief 75. The proposed Taxiway "G" alignment would allow direct access from the aircraft parking apron to Runway 4-22 & Runway 9-27. To reduce the potential of runway incursions (aircraft entering the active runway), it is highly recommended that taxiway systems be configured in manner which requires aircraft to make a turn prior to entering the runway environment.



Concept #2 – Taxiway "D" (Separated)

The Taxiway "D" (separated) concept was developed based on providing separated dual access to the main aircraft parking aprons (air carrier & general aviation). The proposed taxiway alignment was configured in accordance with airport design guidance and Engineering Brief 75. In addition, this concept depicted the development of an aircraft hold apron located adjacent to Taxiway "A" sized to accommodate two (2) Boeing 737 aircraft. This concept was carried forward in the planning process and was refined prior to issuing the recommended development plan.

Concept #3 – Taxiway "D" (Concourse B Expansion)

The Taxiway "D" (Concourse B Expansion) concept was developed to accommodate a six-gate expansion of Concourse B which was previously identified in the 2005 Master Plan. In addition, a single apron provides the greatest level of flexibility for aircraft movements This concept also included the development of an aircraft hold location between Taxiway D and Taxiway C to accommodate two (2) Regional Jets (RJs) or one (1) Widebody aircraft. The Taxiway "D" (Concourse B Expansion) concept was not carried forward in the planning process based on a number of considerations (limited potential for a Concourse B expansion, pilot way-finding given a large apron area with limited marking/signairport operations/maintenance, age, and ATC traffic management).





RECOMMENDED PLAN (TAXIWAY SAFETY EN-HANCEMENT PROGRAM)

The preferred taxiway development plan is based on Concept #2 in general and has been refined through significant coordination with key stake-holders. The Taxiway Safety Enhancement Program (TSEP) is comprised of multiple improvements designed to enhance safety, operational flexibility, and overall capacity. The following objectives have been identified as part of the TSEP initiative:

- Reduced Runway Incursion Potential
- Reduction of Aircraft Conflicts (head to head traffic)
- Enhanced Separation of Aircraft Movements
- Operational Flexibility



 Compliance with Airport Design Standards (AC 150/5300-13A, "Airport De-sign" & Engineering Brief 75)

Taxiway Safety Enhancement Program (TSEP) Implementation

Overall, the Taxiway Safety Enhancement Program has been allocated into five primary construction phases to accommodate funding priorities, airport operations (aircraft movements), design/construction activities, and federal funding requirements:

- Phase I Snow Removal Equipment (SRE) Complex
- Phase II Site Preparation (Taxiway A & ARFF Facility)
- Phase III ARFF Facility including Landside Elements
- ♦ Phase IV Taxiway A "Core" (Taxiway A South, Taxiway D, Taxiway C, and Taxiway G)
- ♦ Phase V Taxiway A "North"

The TSEP has been identified as a short-term objective which will be initiated within the next 0 to 5 years. Given that the TSEP will be implemented in the near future, a detailed 2012 planning level estimate was developed for budgeting purposes <u>(\$38± million)</u>.

Section Three:

Passenger Terminal Area

The airport provides a number of facilities for the movement of passengers on commercial airlines. During the master plan process, it was identified that the existing terminal facilities provide adequate capacity in the near term to accommodate projected demand. Over the 20-year planning, additional terminal facilities may be required depending on a number of industry considerations.

PASSENGER TERMINAL BUILDING

The passenger terminal building is one of the largest assets maintained by the airport. The facility was originally constructed in 1976 with multiple expansions and renovations since then. The last major expansion program of the terminal building was completed in 2007 and included the extension of Concourse B to add an additional six gates. Following the extension of Concourse B, the terminal building can accommodate a wide range of aircraft equipment utilized by the airlines (regional jets to large widebody aircraft like the Boeing 757/767).



CAPACITY

Overall, the existing terminal building provides adequate capacity to accommodate the anticipated demand throughout the 20-year planning period. It should be noted that changes in the airline industry may require the airport to reanalyze the level of service provided by the terminal building at a future date. An example of this would be the introduction of large widebody aircraft on a daily basis which could cause delays at the security checkpoint or the baggage claim area.

The following table identifies the planning metrics utilized to analyze space requirements in the terminal building. While the terminal building can process a large number of passengers on an annual basis, peak hour demand is the key planning metric to determine if facilities are adequately sized. Planning Activity Levels (PALs) are used to identify general activity levels in which

additional facilities or improvements may be required. As demand approaches the PAL level, it is recommended that the Airport conduct further analysis/study of applicable terminal facilities to ensure objectives are being met (adequate space, level of service, etc.)

Terminal Metrics	Existing	PAL 2	PAL 3
Enplanements (Annual)	540,000	630,000	860,000
Enplanements (Peak Hour)	230	275	375
Operations (Annual)	11,150	8,400	10,000
Departures (Peak Hour)	5	4	4

Based on the metrics identified above, the following table provides a summary of the analysis conducted within the terminal building to determine capacity improvements if necessary.

Terminal Component	Existing	PAL 2	PAL 3		
Aircraft Gates'	V	M	V		
Ticket Agent & Kiosk Positions	V	M	M		
Ticket Counter Length (LF)	Ø		Ø		
Ticket Counter / Check In Kiosk Area (SF)					
Airline Ticket Office (SF) ²	V	V	×		
Outbound Baggage Make-Up (SF)	V	Ŋ	M		
Ticket Lobby (SF)	V	Ŋ	Ŋ		
Public Waiting Lobby (SF)			Ø		
Baggage Claim Frontage (LF) ³		M	×		
Baggage Claim Area (SF)	Ø		×		
Inbound Baggage (SF)	Ø		×		
Passenger Holdroom (SF)	\checkmark	V	×		
Security Checkpoint (Lanes, Offices, Etc.)		N	V		
Public Restrooms (SF)			Ø		
Car Rental (SF)	Ø		Ø		
Adequate Capacity	V				
Capacity Enhancement ×					
Notes					
¹ Additional Gates may be Subject to Airline Agreements & Lease Terms					
² Subject to Airline Operating Requirements					

³ Detailed Study Required at Appropriate Time to Determine Facility Demand

The analysis presented above indicates that the terminal building provides sufficient facilities through PAL 2 conditions. As demand increases towards the PAL 3 condition, certain facilities will begin to exhibit a lower level of service. Each facility is unique in how passengers are processed; therefore, it is recommended that each facility is studied in greater detail as demand approaches the PAL 3 condition.

As identified in the forecast, it is anticipated that further airline consolidation and a reduction in frequency will provide excess capacity in the terminal building related to gates and holdrooms (opportunity for facility consolidation in Concourse B).

CUSTOMS/FEDERAL INSPECTION STATION (FIS)

During the planning process, the development of a Customs/Federal Inspection Station (FIS) was identified as a strategic initiative. Recent airline consolidation and reduced capacity has resulted in less opportunity for airports to secure "new service" for the traveling public. One element of the airline industry that is seen as an opportunity for many airports is scheduled service to key international destinations. To facilitate international service, an airport is required to provide a Customs/FIS facility in accordance with Customs & Border Protection (CBP) standards.

ANALYSIS

As a strategic opportunity, the planning process identified a number of concepts to accommodate a Customs/FIS facility within the current terminal building complex. Each concept considered a number of factors including existing infrastructure, CBP requirements, passenger flows, Americans with Disabilities (ADA) access, etc.

The development of a Customs/FIS facility has been identified as a short-term project (0-5 years) subject to demand analysis, development cost considerations, revenue analysis, and airline strategies.

ALTERNATIVE CONCEPTS

Three general concepts were developed as part of the planning process. During the concept development process, CBP requirements were analyzed to determine if adequate facilities could be provided to process international passengers. The following facilities were considered in each concept:

- Primary & Secondary Passenger Processing
- Passenger Queuing & Restrooms
- CBP Administration & Support Facilities
- Baggage Claim & Exit Podium Facilities

It should be noted that additional facilities are required by CBP to process international passengers in accordance to CBP guidelines. However, for planning purposes, the facilities identified above were utilized to determine the feasibility of each concept realizing that additional stakeholder coordination will be required prior to implementing.

Concept #1 (Concourse B)

This concept was developed to utilize existing space located on the ground level of Concourse B. Constructed in 2007; Concourse B offers a two-story structure with sufficient space located on the ground level to accommodate a Customs/FIS facility. International passengers would enter through Gate B8 (2nd story) and proceed to the ground level for processing. Passengers would proceed up to the second level after processing to exit the terminal building. This concept was not carried forward in the planning process based on stakeholder coordination.

Concept #2 (Concourse A Renovation & Expansion)

This concept utilizes space available in Concourse A while maintaining Gates A1, A2, and A3 on the second level for domestic operations. International passengers enter the facility through Gate A4 and proceed to the lower level for processing. To accommodate CBP facilities, the construction of additional building area is required. The additional building area would be constructed in a location that is currently employee parking. Certain aspects of this concept were carried forward into the recommended development plan for the Customs/FIS facility.

Concept #3 (Concourse A Expansion)

This concept was developed to maintain the use of existing gates located in Concourse A for domestic operations. To meet CBP facility requirements, a 120' extension of Concourse A was depicted and would consist of two levels







for processing of passengers. International passengers would arrive through Gate A4 and proceed through Primary Processing on the second story. Baggage claim and Secondary Screening functions would occur on the first story. This concept was not carried forward in the planning process.

RECOMMENDED PLAN

During the planning process, airport staff met with CBP officials to discuss the development of a Customs/FIS facility located in Concourse A. Initial input from CBP indicated that Concourse A would provide sufficient space to accommodate a majority of the functions required to process international passengers. A refined concept to accommodate the Customs/FIS facility within the confines of Concourse A was developed for further stakeholder coordination.

To facilitate the recommended development plan, all domestic airline operations currently conducted from Concourse A would be relocated to other gates. International passengers would enter the facility through Gate A4; proceed through primary processing on the second floor; and then be routed to the first floor to claim luggage and be processed through Secondary Screening if required. A planning level estimate was developed to implement a Customs/FIS facility located in Concourse A (§2.7± million). It should be noted that the conceptual floor plan identified below does not take into account detailed facility planning and will likely be revised during the implementation phase.



VEHICLE PARKING

Overall, approximately 1,900 spaces are provided through multiple lots. A threelevel parking deck is centered in front of the terminal providing both short-term and long-term public parking.

DEVELOPMENT PROGRAM

Prior to the economic downturn which resulted in reduced demand for parking facilities, the airport completed a comprehensive planning and design effort to identify a recommended parking lot expansion program. The recommended expansion program includes the acquisition of land, relocation of Terminal Drive, and the addition of over 2,500 parking stalls in multiple phases.

The recommended development program has been designed into multiple phases to accommodate demand as needed. The first phase consists of relocating Terminal Drive and the construction of a new employee lot. Following the completion of the Phase I improvement, the airport may elect to construct the economy lots in multiple phases. In addition, a small cell phone waiting lot is depicted in which vehicles awaiting the arrival of flight can sit without entering the paid parking area. The total development cost of the recommended parking lot expansion is approximately \$13.5± million (includes the cost to acquire property).



Section Four:

General Aviation Facilities

OBJECTIVES

During the planning process, a number of interviews were held with key stakeholders regarding the development of additional facilities at the airport. Through the interview process, a number of elements were identified which guided the development of a recommended plan. The following considerations were identified:

- Tenants are Generally Satisfied with Current Airport Operating Environment
- Growth Opportunities
 - Corporate Users
 - Flight Training
 - Aircraft Maintenance and Repair Services
 - Specialized Services (i.e. "Tex" Sutton)
- Strong Desire to Utilize Runway 9-27 Development for General Aviation
- Existing Facility Condition
- ♦ Hangar Lease Terms
- Land Use Utilization & Prioritization of Facility Developments

LEASING POLICY

The Airport implemented a new leasing policy effective January 1, 2013 which was developed to foster a spirit of partnership with its tenants while fulfilling duties as stewards of vital public assets and resources. The policy was developed taking into consideration:

- The role and continued development of the Airport,
- The range, level, and quality of aeronautical products, services, and facilities currently being provided at the Airport,
- The future prospects for, and the anticipated development of, the Airport and the community,
- ♦ The promotion of fair competition at the Airport,
- Enhanced building opportunities through progressive lease terms,
- Standardization of leases for similar hangar facilities

In an effort to promote public/private partnership, the new leasing policy establishes the length of ground leases based on the amount of tenant investment in physical/fixed improvements on the airport. Under this arrangement, the following investment schedule has been established:

Aeronautical Related Facility (Level of Investment)	Terms
\$100,000 - \$250,000	25 Years
\$250,001 - \$750,000	30 Years
\$750,001 - \$1,500,000	35 Years
\$1,500,001 - Over	40 Years

During the stakeholder coordination process, a number of tenants indicated their desire to invest in new facilities subject to a resolution in the length of term for ground leases. The development of a new aircraft storage facility by a tenant represents a significant investment of private resources. It is anticipated that the new terms identified above will foster private investment in aircraft storage facilities.

EAST GENERAL AVIATION CAMPUS

Today, the East General Aviation Campus is home to a wide range of aircraft storage facilities ranging in size, age, condition, and ownership. In addition to storage facilities, a number of service providers are located in this area including TAC Air (FBO), Aero-Tech (Flight Training), Mustang Aviation (Aircraft Maintenance), Civil Air Patrol, and the Lexington Flying Club.

ANALYSIS

Given the complex operating environment of the East General Aviation Campus, traditional planning metrics were not developed for this area. To assist in the planning process, a number of actions were completed including a review of activity records, a facility condition assessment, coordination with airport management, and stakeholder engagement.

Through this process, a number of considerations were identified and taken into account during the development of a recommended plan for the East General Aviation Campus.



Level of Demand

Presently, all general aviation aircraft utilize the East General Aviation Campus creating significant variability in daily demand. During certain events throughout the year, aircraft storage capacity is full. Presently, all private hangars are full while on average the community hangars are approximately 70% occupied.

Congregation of Users

Under the current configuration, a wide range of aviation users are located within close proximity to one another creating potential safety concerns. An example is the location of the flight training school relative to the FBO facility. This creates a situation in which new pilots are operat-



ing aircraft within close proximity to corporate aircraft.

Facility Assessment

The facility assessment identified a core group of existing aircraft storage facilities which have reached the end of their useful life. Further information regarding the facility condition assessment can be found in the appropriate appendix.

Highest & Best Land Use

Recognizing that the airport has limited land resources, identifying the highest and best land use for development areas should be a key consideration. In addition, property which the airport owns, the existing topography limits the development of additional facilities in certain areas.

West General Aviation Campus

A strong desire to utilize the West General Aviation Campus (Runway 9-27) was communicated through stakeholder interviews by certain user groups.

RECOMMENDED PLAN

As discussed above, the planning process recognized the complex operating environment present in the East General Aviation Campus (user groups, lease agreements, asset management, etc.). Realizing that a majority of the existing facilities have useful life remaining, the recommended development plan focused on a long-term transition of those facilities located in the "core". It is important to note that this plan does take into consideration the migration of existing tenants to other aircraft storage assets. The long-term redevelopment of the "core" is comprised of providing additional facilities and services to accommodate corporate aviation users. To maximize flexibility, the recommended development plan can be implemented in multiple phases depending on demand, existing facility migration, etc. Overall, the redevelopment program would provide approximately 85,500 SF of hangar space which could accommodate a wide range of services



(aircraft storage, FBO services, aircraft maintenance and repair services, etc.). The total development cost to redevelop the East General Aviation Campus "core" is approximately <u>\$8.5± million</u>. It is anticipated that the redevelopment of this area would be accomplished through public/private partnerships.

WEST GENERAL AVIATION CAMPUS

The Runway 9-27 development represents a new opportunity for general aviation facilities and services. Prior to the development of this master plan, the Airport completed a focus study of the Runway 9-27 development corridor (2009). Through stakeholder engagement during the master plan process, a number of tenants expressed a strong desire to transition to the West General Aviation Campus.

The strategic vision of the West General Aviation Campus is to provide facilities and services to accommodate a wide range of users who could call the campus their "home". The campus setting could be home to the following:

- Flight Training
- Self-Fueling Facilities
- Aircraft Storage Facilities (T-Hangars & Community Hangars)
- Designated Aircraft Wash Location
- Seneral Aviation Community (Fly-In's, GA Cookouts, Education Flights, Etc.)
- Community Resources (Meeting Space, Offices, Etc.)
- Potential Relocation of TEX Sutton (Currently Located inside the SIDA Area)

The 2009 study identified a number of concepts to develop the West General Aviation Campus which were vetted through stakeholder engagement (airport management, users groups, FAA,

etc.). A recommended development plan was identified through that planning process and was carried forward into this Master Plan. To accommodate a wide range of aircraft demand through the 20-year planning period, the following aircraft storage facilities are recommended to be developed through a phased approach:

- ♦ 36 T-Hangar Units
- Six (6) Executive Hangar (41' x 48')
- ♦ Five (5) Large Hangars (56' x 62')
- Three (3) Large Hangars (54' x 56')
- Two (2) Community Hangars including Offices

In an effort to work in collaboration with community stakeholders, the airport has developed architectural standards for facilities implemented in the West General Aviation Campus. Adja-

cent to the Runway 9-27 is Versailles Road and Keeneland Race Course. Recognizing that these community partners wish to maintain a strong equestrian environment, the architectural standards developed for the Runway 9-27 corridor utilized those features found in horse stables within the area.



The total development cost to implement the West General Aviation Campus is approximately **<u>\$9.0± million</u>**. It is anticipated that the implementation of these facilities would be accomplished through public/private partnerships. The airport has identified the development of T-Hangars in the west general aviation campus as a short-term initiative.



Section Five:

Support Facilities

The Airport provides a number of facilities and services to support aviation operations. Certain facilities and services are required by federal regulations to accommodate commercial airline operations. Overall, these functions are intended to enhance operational safety and efficiency.

AIRCRAFT RESCUE & FIREFIGHTING (ARFF)

The current ARFF/Public Safety facility was constructed in 1978 and consists of a two-story structure providing four ARFF apparatus bays in a 2 x 2 configuration. Current FAA design standards indicate that the existing facility (8,792 SF) does not provide adequate space to accommodate the functions required to provide ARFF services as specified by FAA Part 139 requirements. It is important to note that the Airport also provides two other public safety functions from the same facility (Police and Emergency Medical Services).

ANALYSIS

To determine adequate facility sizing, a detailed review of Advisory Circular 150/5210-15A, *Aircaft Rescue and Firefighting Station Building Design*, was completed. Coordination with airport stakeholders was conducted as part of the planning process to ensure the proposed facilities are adequate to accommodate existing and future demand.

Information contained in FAA guidance was utilized to allocate spacing requirements for each functional space. Currently, the airport maintains three (3) ARFF response vehicles, a rescue command truck, and a mass casualty trailer. To maximize the capability of the ARFF facility, it is recommended that five (5) apparatus bays be provided to house a wide range of equipment (three bays for ARFF response vehicles, one bay for the rescue command center vehicle, and one bay to accommodate a future EMS vehicle, mass casualty trailer, and foam truck for multi-agency responses).

In determining space allocations for each "function" within the ARFF/Public Safety building, recommendations and/or guidance provided in the Advisory Circular was utilized in conjunction with airport specific conditions (i.e. staffing levels, equipment types, etc.).

Functional Space	Recommended Allocation	Considerations
ARFF Apparatus Bays	Number of Bays	EMS Service Hazardous Materials Response Vehicle Specifications (Door Sizes) Expansion Capability
Utility Room	64 - 100 SF	N/A
Watch/Alarm Room	Minimum of 130 SF	Location
Medical Decontamination Room	Minimum of 150 SF	Cleanup & Decontamination
Gear Washing/Drying Room	Minimum of 200 SF	N/A
First Aid & Medical Storage	Minimum of 120 SF	N/A
Complimentary Agent Storage	225 to 350 SF	N/A
SCBA and Fire Extinguishers Storage	Minimum of 200 SF	Workspace Air Filtration & Compressor
ARFF Administrative Offices	Fire Chief - 200 SF Deputy Chief - 160 SF Lieutenant/Captain - 200 SF Conference Room - 100 SF Filing Storage - 250 to 500 SF	Level of Staffing Space Utilization & Consolidation
Workshop	100 to 300 SF (Depending on ARFF Index)	Location to Support Maintenance Adjacency to Apparatus Bays
Hose Drying Facility	150 SF	N/A
Day Room	20 SF Per Person	N/A
Dormitories/Sleeping Rooms	140 SF Per Person	20% Additional Capacity for Future Growth
Locker Rooms (Male & Female)	15 SF Per Person	N/A
Lavatories (Male & Female)	Standard Stall Specifications	N/A
Laundry Room	100 SF	N/A
Kitchen/Dining Room	400 SF	N/A
Training Room	48 SF Per Person	Media Center Training Devices Secured Storage
Computer Training Room	Minimum of 24 SF	N/A
Mechanical/Electrical Room	Building Design & Code Com- pliance	Emergency Backup Power Supply
Storage Room	Demand Based	N/A
Telecommunications Room	Minimum of 80 SF	N/A
Trash & Recycling Room	150 SF	N/A
Exercise/Workout Room	Demand Based	N/A

RECOMMENDED PLAN

Recognizing that the ARFF/Public Safety facility must respond to a range of potential emergencies on the airport, the development of new a facility had to meet the following objectives:

- Response Time: FAA regulation requires that ARFF services can reach the midpoint of Runway 4-22 within a three (3) minute response time.
- Proximity to Terminal Building: The majority of calls handled by ARFF services are associated with medical emergencies at the passenger terminal building (avoid runway crossing if possible)
- Public Road Access: Due to the range of services provided by the ARFF/Public Safety facility, proximity to the public roadway system is considered a key element (police, EMS response, multi-agency response, mass casualty staging area, etc.)

It was identified through stakeholder coordination that the optimal location for a new ARFF/Public Safety facility is between Taxiway A and Aviator Road. The preferred location will facilitate expedited response to Runway 4-22 in the event of an aircraft accident while also allowing ARFF/EMS response to the passenger terminal building without entering the Aircraft Operating Area (AOA).

To meet FAA design guidance and existing site constraints, the recommended development plan consist of constructing a two story building to accommodate ARFF/Public safety functions. In an effort to centralize and integrate a number of airport services, the proposed floor plan is configured to accommodate the following services: ARFF, EMS, mass casualty, hazardous material, airport operations, multiagency operations, and public safety/security.

The proposed facility provides approximately 24,000 SF of usable space to accommodate the services identified above. While conceptual space allocations have been identified, it should be noted that the design process will modify the proposed floor plan to take into account a number of considerations (structural, room sizing, ADA compliance, etc.). The goal of the space allocation process is to identify each "functional" space which must be accommodated in the new facility

and to ensure each space is located in relationship with other functions that are necessary to provide efficient response. An example would be locating the watch room in a location which can view the airfield and the apparatus bays as recommended in the Advisory Circular.

The development cost for the recommended ARFF facility is estimated at approximately <u>\$7.7 mil-</u> <u>lion</u>. The development of a new ARFF facility will be completed to accommodate the Taxiway Safety Enhancement Program (TSEP).



ALTERNATIVE SITE (TAXIWAY B)

An alternative site was identified during previous planning efforts which recommended the development of a new ARFF/Public Safety facility located within the midfield (between Runway 4-22 & Runway 9-27) with access to Runway 4-22 via Taxiway B. Through stakeholder coordination as part of this master plan, it was recognized that the ARFF/Public Safety facility must respond to a range of emergencies on the airport. The development of a new facility needs to meet a number of objectives including response time, proximity to the terminal building, and access to the public road network. While the construction of a new ARFF Public Safety facility at the location identified in this alternative is feasible, this site was eliminated from further consideration due to the following reasons:

- Proximity to Terminal Building: In accordance with design guidance, it is recommended that the ARFF facility be located in proximity to the passenger terminal building while limiting the need for ARFF vehicles to cross an active Runway. The majority of calls handled by ARFF services are associated with medical emergencies either at the passenger terminal building or other buildings located on the airfield. This alternative would require ARFF vehicles to cross Runway 4-22 while responding to emergency calls (passenger terminal, general aviation hangars, etc.).
- Public Road Access: Proximity and ease of access to the public roadway system is considered a key design element given the wide range of services being provided at the ARFF/Public Safety facility (police/EMS response, multi-agency response, mass casualty staging area, etc.).

SNOW REMOVAL EQUIPMENT (SRE) COMPLEX

The Snow Removal Equipment (SRE) complex is located between Taxiway A and the main general aviation apron. The SRE complex is comprised of five (5) main buildings built between 1986 and 1989. In total, the five (5) main buildings provide approximately 33,505 SF of usable space to accommodate SRE functions. The airport currently maintains 23 pieces of snow removal equipment to accommodate winter operations at the airport. The existing facility does not provide adequate space to accommodate the functions required to provide SRE services as specified by FAA design standards and regulations. The SRE Complex must be relocated to accommodate the Taxiway Safety Enhancement Program (TESP) and the new ARFF/Public Safety facility.

ANALYSIS

To determine adequate facility sizing, a detailed review of Advisory Circular 150/5220-18A, *Build-ings for Storage and Maintenance of Airport Snow and Ice Control Equipment and Materials*, was completed. Coordination with airport stakeholders was conducted as part of this Master Plan process to ensure the proposed facilities were adequate to accommodate existing and future demand.

Based on FAA guidance in conjunction with the airport's winter management plan, the Airport is categorized as a "Very Large Airport". This classification is used to assist in allocating functions within the proposed SRE complex/facility. In addition to the classification, an analysis using FAA's snow removal equipment calculator was completed to determine the number of eligible pieces which would be stored in the proposed facility. The resulting calculations identified a total of 21 eligible pieces of equipment (three blowers, six plows, four sweepers, four spreaders, and four loaders).

FAA Snow Removal Equipment Calculator (Inputs)

• 13" of Average Snow Fall

- Annual Operations >40,000
- Commercial Service Airport Classification
- 2.86 Million Square Feet of Critical Pavement (*Priority* 1)
- 30 Minute Clear Time

Using FAA guidance, a floor plan was established using

FAA eligible equipment including all recommended safety setbacks and allocation of space for support and special equipment storage. In total, FAA guidance identifies a proposed facility requirement of approximately 50,500 SF (40,000 SF for equipment storage and 10,500 SF for support and special equipment storage).

ALTERNATIVE CONCEPTS

A total of three (3) concepts were developed as part of the planning process and coordinated with the appropriate stakeholders.

Concept #1 (Aviator Road)

In this concept, the development of a new SRE complex was identified adjacent to Aviation Road and the Lexington Airport Surveillance Radar (ASR). The site was configured to take into consid-

eration existing topography while minimizing the level of site preparation needed. This concept utilized a single building approximately 140' x 360' in dimension providing 50,400 SF of floor space to accommodate SRE functions. During the stakeholder coordination process, concerns were raised regarding the site location relative to the ASR, the proposed floor plan configuration, and the quality of material below the proposed site.

In general, the Concept #1 location was revised based on stakeholder coordination and was carried forward into the recommend plan.



Concept #2 (Parkers Mill Road)

In this concept, the development of a new SRE complex was identified adjacent to Parkers Mill Road. This site was identified to maximize an existing "plateau" thereby minimizing the level of site preparation. This concept utilized an "L" shaped building providing approximately 50,300 SF of floor space. Given the distance of this site from a majority of the airports infrastructure, this concept was not carried forward in the planning process.

Concept #3 (Taxiway B)

In this concept, the development of a new SRE complex was identified adjacent Taxiway B. This site was identified based on direct access to the airfield thereby minimizing the response time. The site is also relatively flat, minimizing the level of site preparation. Given the distance of this location from a majority of the airport's infrastructure and the potential for SRE equipment to enter the AOA without authorization, this concept was not carried forward into the planning process.

RECOMMENDED PLAN

Through the alternatives process, a recommended development plan was identified which takes into account a number of considerations:

- Proximity to the Lexington ASR Facility (Horizontal & Vertical)
- Existing Topography & Site Preparation
- ♦ Access to Aviation Road & Airport Infrastructure
- Standalone Material Storage Facility
- Simultaneous Vehicle Fueling (Dual Sided)





The proposed SRE complex is shown at approximately 54,000 SF to accommodate the existing equipment maintained by the airport. While conceptual space allocations have been identified, it should be noted that the design process will modify the proposed floor plan to take into account a number of considerations (structural, room sizing, ADA compliance, etc.). The goal of the space allocation process is to identify each "functional" space which must be accommodated in the new facility and to ensure each space is located in relationship with other like functions.



The development cost for the recommended SRE Complex is estimated at approximately <u>\$8.7</u> <u>million</u>. The development of a new SRE facility will be completed as part of the Taxiway Safety Enhancement Program (TSEP).

AIR TRAFFIC CONTROL TOWER (ATCT)

The Federal Aviation Administration (FAA) maintains an Air Traffic Control Tower (ATCT) facility at the airport which is located east of the terminal building. The tower was constructed in 1969 and operates 24 hours a day. Several reasons were identified for relocation including:

- ♦ Age of Current ATCT Facility (40+ years)
- ♦ Line-Of-Sight Issues associated with Taxiway "A"
- ♦ Line-Of-Sight Issues associated with the West General Aviation Campus
- FAA Force Protection Requirements (Safety Setbacks)
- ♦ Annual Maintenance and Repair Cost of \$200,000+

ANALYSIS

A detailed analysis of facility requirements and site locations was conducted as part of the 2009 Runway 9-27 Development Study. In general, the following considerations were identified in the previous planning study:

- Site Requirement: three to five Acres including Vehicle Access
- Safety Set Back/ Force Protection Area

- Line of Sight (LOS) & Airport Operations Area (AOA)
- Terminal Instrument Procedures (TERPS) Guidance
- FAA Airspace Requirements (Part 77)

Overall, Site #2 in the planning study was identified as the recommended development location for a new ATCT facility. This master plan will carry forward the preferred development location identified in the 2009 planning study.



Section Six:

East Development Area

The East Development Area is comprised of an area along Airport Road which can support the development of additional facilities and services. Realizing that land resources which can support development are limited, the following section identifies those functions/services which could be implemented in the east development area to maximize its potential.

CONSOLIDATED RENTAL CAR

Existing rental car services are provided through a number of facilities ranging in age and condition. Currently, each rental car agency operates its own service center while rental cars which are ready for rental are parked in the airport's "Rental Ready Lot".

In an effort to consolidate functions to enhance efficiency and customer service, the Airport has identified the development of a Consolidated Rental Car/Quick Turn-Around (QTA) facility as a short-term objective.

ANALYSIS

The planning process identified a number of locations which could support the development of a Consolidated Rental Car/QTA facility. A number of considerations were identified in the planning process:



- Proximity to Rental Ready Lot: The consolidated facility should be located within proximity to the rental ready lot to minimize the travel distance/time between the two service centers.
- Maintain Existing Rental Car Storage Lot: This lot was recently constructed and has a significant useful life remaining. Utilizing the storage lot reduces the overall development cost of a consolidated facility.
- Design Flexibility: Realizing that each rental car company has its own policies and procedures, the proposed consolidated facility should be designed with maximum flexibility (vehicle staging, services/functions, etc.)

RECOMMENDED PLAN

The recommended plan consists of developing the consolidated facility to the south of the existing rental car storage lot and to the east of Air Freight Drive. This location provides the following benefits:

- Construction Activity: Development of a consolidated rental car facility can occur at this location without impacting daily operations.
- Existing Facility Utilization: Utilization of the existing rental car storage lot will reduce the overall development cost.
- Topography: Existing topography in this area is "relatively" flat thereby reducing the overall site preparation cost.
- Facility Flexibility: Additional facilities can be developed in this location without impacting daily operations



The development cost for the recommended rental car consolidated facility is estimated at approximately \$4.5 million.

LAND USE (PRESERVATION)

A general area has been identified for aeronautical and non-aeronautical land use preservation.

Realizing that land resources suitable for development of aeronautical facilities is limited; the east development area provides topography conditions which could support aeronautical development. The development of this preservation area will be demand based.

Non-aeronautical land use preservation is identified in the east development area to maximize the Airport's capability to remain self-supportive consistent with FAA grant assurances.



Section Seven:

Facility Condition Assessment

In an effort to better understand the condition of existing assets prior to recommending preferred developments; a facility condition assessment was completed. In conjunction with the assessment completed as part of the master plan process, the airport recently completed a Pavement Management Program (PMP) which focuses on the condition of pavement assets both airside and landside. This section is comprised of tables and graphics depicting the condition of assets maintained by the airport. Additional information related to the building assessment can be found in **Appendix C**.

BUILDING ASSESSMENT

A building condition assessment was completed to identify a number of elements taken into consideration during the planning process. Each building was inspected and photographed to determine overall condition. The assessment process included the following items: construction date, structure type/height, roof type, HVAC condition (if applicable), hangar door condition (if applicable), elevator condition (if applicable), other considerations, and notes/comments. General conditions of buildings were taken into account in the financial analysis conducted.

Building ID	Facility Name	Construction Date	Renovation Date	Structure Type	General Condition
1	Passenger Terminal				Good
2	Parking Structure				Good
5	Rental Car Ready Return Lot	2005		Block/Brick	Good
6	Freight Building		2005	Brick/Metal	Fair
7	Hertz			Block	Poor
7	Hertz			Block	Poor
8	National			Block	Fair
9	Enterprise			Block	Fair
10	Avis			Block	Poor
11	Murphy-Surf			Metal	Poor
12	Tex Sutton	1995		Metal	Good
13	Aviation Museum	1988	1997	Metal	Poor
14	TAC Air	2010		Stone	Good
15	Mustang Aviation	1982		Brick/Metal	Fair
16	Aero-Tech			Metal	Good
18	T Hangar			Metal	Good
18	T Hangar			Metal	Good
18	T Hangar			Metal	Good
19	T Hangar	1977		Metal	Poor
20	T Hangar	1977		Metal	Poor
21	T Hangar			Metal	Poor

Building ID	Facility Name	Construction Date	Renovation Date	Structure Type	General Condition
21	T Hangar			Metal	Poor
21	T Hangar			Metal	Poor
21	T Hangar			Metal	Poor
21	T Hangar			Metal	Poor
21	T Hangar			Metal	Poor
21	T Hangar			Metal	Poor
21	T Hangar			Metal	Poor
22	T Hangar			Metal	Poor
22	T Hangar			Metal	Poor
22	T Hangar			Metal	Poor
23	DGY	1998		Brick	Good
25	Private Hangar			Metal	Fair
26	Private Hangar			Metal	Good
27	Private Hangar			Metal	Good
28	Private Hangar			Metal	Good
29	Private Hangar			Metal	Fair
30	Private Hangar			Metal	Fair
31	Private Hangar			Metal	Good
33	4245 Box Hangar	2006		Metal	Good
34	4249 Box Hangar	2006		Metal	Good
35	4253 Box Hangar	2006		Metal	Good
36	Hidalgo	2008		Metal	Good
37	Mach Two	2007		Metal	Good
38	Mojo Aerospace	2006		Metal	Good
41	FST	2006		Metal	Good
42	Alltech	2007		Metal	Good
42	Alltech	2007		Metal	Good
44	Mountain Enterprise	2003		Metal	Good
45	Hangar 5	1983		Metal	Poor
46	New Corp Hangar	2010		Metal	Good
47	Fuel Farm	1988	2009	Metal	Good
47	Fuel Farm	1988	2009	Metal	Good
48	Fuel Farm	2007			Fair
49	Maintenance Building A	1986-1989		Brick/Metal	Fair
50	Electric Vault	2009		Block	Good
51	Maintenance Building D	1986-1989		Brick/Metal	Poor
52	Maintenance Building E	1986-1989		Metal	Fair
53	Maintenance Building B	1986-1989		Brick/Metal	Fair
54	Maintenance Building C	1986-1989		Brick/Metal	Fair
55	Hangar 6	1975		Metal	Poor
56	Sand Dome	1999		Sand Dome	Poor
56	Salt Dome	1999		Salt Dome	Poor
57	ARFF/Public Safety	1978	1993 & 1999	Brick	Poor





PAVEMENT CONDITION INDEX (PCI)

As identified, the airport recently completed a comprehensive Pavement Management Program (PMP) which included the development of Pavement Condition Index (PCI) values for airside and landside pavements. The PCI analysis is utilized to determine pavement rehabilitation/reconstruction priorities and funding allocations. Detailed information regarding the condition and anticipated pavement maintenance activities can be found in the Pavement Management Program (PMP) report. Pavement conditions were taken into account in the financial analysis conducted.



Facility Condition Assessment





Section Eight:

Program Implementation

As identified in the previous sections, a number of facility improvements are needed over the 20year planning period to accommodate aviation demand. The following implementation program has been developed as part of this master plan update realizing that funding resources and actual construction years could change.

SHORT-TERM (2013-2018)

TAXIWAY SAFETY ENHANCEMENT PROGRAM (TSEP)

The proposed Taxiway Safety Enhancement Program is planned to be a multi-phased development based on financial, operational, and constructability considerations. The overall location and magnitude of the proposed development creates a number of challenges which have been taken into account during the development of the implementation plan.

Recommended Plan

The recommended development plan has been broken down into five primary construction phases:

- Phase I Snow Removal Equipment (SRE) Complex
- Phase II Site Preparation
- Phase III ARFF Facility
- Phase IV Taxiway Improvements
- Phase V Taxiway Improvements

Program Action Items

Prior to initiating construction of the Taxiway Safety Enhance Program, there are a number of steps to be completed including:

- Sponsor Approval
- Project Justification, ACIP Update & Funding Applications
- Airport Layout Plan Approval & Airspace Determination
- Environmental Documentation (NEPA)
- Safety Risk Management Assessment (SRMA)
- Project Design
- Financial Feasibility/Planning
- Agency Coordination Activities

Development Costs & Funding Resources

As a key short-term initiative identified during the planning process, detailed planning estimates were developed for the Taxiway Safety Enhancement Program. The following table identifies the estimated development cost and proposed funding resources:

Fiscal Year	TSEP Phase	Budget Amount	Federal Re- sources	Local Re- sources
2013	Environmental Documentation	\$75,000	\$67,500	\$7,500
2013/2014	Design Activities	\$2,400,000	\$2,160,000	\$240,000
2014	Phase I - SRE Complex	\$8,215,000	\$7,393,500	\$821,500
2014	Phase II - Site Preparation	\$5,955,000	\$5,359,500	\$595,500
2015	Phase III - ARFF Facility	\$7,200,000	\$6,480,000	\$720,000
2016	Phase IV - Taxiway Improvements	\$8,570,000	\$7,713,000	\$857,000
2017	Phase V - Taxiway Improvements	\$5,675,000	\$5,107,500	\$567,500
	Total Program	\$38,090,000	\$34,281,000	\$3,809,000

ANTICIPATED INITIATIVES/CAPITAL OUTLAYS

The airport has identified a number of anticipated initiatives/capital outlays within the short-term period. Certain developments have been identified in the previous sections of this report while others are associated with the daily operation and maintenance of the airport.

Antici- pated Year	Development Imitative Capital Outlay	Federal Resources	Local Re- sources	Notes/Considerations
2013	Snow Removal Equipment	\$468,000	\$52,000	
2013	Terminal - HVAC	\$200,000	\$200,000	
2013	ARFF Equipment	\$450,000	\$50,000	
2013	Terminal - Escalator	\$225,000	\$25,000	
2014	Pavement Rehabilitation	\$0	\$1,750,000	Terminal Drive, Service Road, and Employee Lot
2014	West General Aviation Campus (Ph. I)	\$0	\$3,000,000	Two T-Hangars & Associated Site Preparation
2015	Pavement Rehabilitation	\$0	\$750,000	Airport Road
2015	Local Only Projects	\$0	\$500,000	Terminal, Equipment, Pave- ments
2016	Parking Lot Expansion - Land Acquisi- tion	\$1,000,000	\$500,000	
2016	Consolidated Rental Car Facility	\$0	\$4,500,000	Bond Funding - Financed with CFC Revenue
2016	West General Aviation Campus (Ph. II)	\$0	\$1,000,000	Corporate Hangar, Community Hangar
2017	Local Only Projects	\$0	\$500,000	Terminal, Equipment, Pave- ments
2018	Runway 4-22 Overlay including EMAS	\$18,000,000	\$2,000,000	
	Total	\$20,343,000	\$14,827,000	

INTERMEDIATE-TERM (2019-2023)

The airport has identified a number of anticipated initiatives/capital outlays within the intermediate-term period. Certain developments have been identified in the previous sections of this report while others are associated with the daily operation and maintenance of the airport.

Development Imitative/Cap- ital Outlay	Budget Amount	Federal Eligible	Notes/Considerations
Equipment Purchase	\$4,000,000	Yes	Multiple Replacements
Airport Fuel Farm Upgrade/Re- habilitation	\$1,000,000	No	Current Fuel Farm Tanks Installed 1989, Pro- gram Assumes 30 Years of Useful Life
Customs Facility (Concourse A)	\$2,400,000	Yes	Entitlement Funding
Local Only Projects	\$2,000,000	No	Terminal, Equipment, Pavements, Etc.
Parking Lot Expansion (Ph. I)	\$4,000,000	Yes	
Pavement Rehabilitation	\$750,000	No	Landside Pavements
Taxiway A Rehabilitation	\$3,740,000	Yes	
West General Aviation Cam- pus (Ph. III)	\$2,000,000	No	Corporate & Community Hangars, Assumes 50% Private Investment
Total	\$19,890,000		

LONG-TERM (2024-2033)

The airport has identified a number of anticipated initiatives/capital outlays within the long-term period. Certain developments have been identified in the previous sections of this report while others are associated with the daily operation and maintenance of the airport.

Development Imita- tive/Capital Outlay	Budget Amount	Federal Eli- gible	Notes/Considerations
Local Only Projects	\$4,250,000	No	Terminal, Equipment, Pavements, East General Aviation Redevelopment
Equipment Purchase	\$4,000,000	Yes	Multiple Replacements
Parking Lot Expansion (Ph. II)	\$6,000,000	No	
Runway 9-27 Extension (1,000')	\$10,500,000	Yes	Includes Relocation of Access Road
Total	\$24,750,000		

Section Nine:

Financial Plan

The proposed financial plan was developed to explore strategies to fund the proposed capital improvements identified in the master plan that will accommodate the forecasted aviation demand while maintaining a reasonable cost structure. It is important to note that the proposed financial plan is based upon the "medium" aviation demand projections (see Appendix A & B).

KEY FINDINGS (CONCLUSIONS & OBJECTIVES)

The following key objectives were identified through the planning process and emphasized in the financial analysis:

- Maximize funding from Federal Aviation Administration (FAA) Airport Improvement Program (AIP) grants and Passenger Facility Charges (PFCs)
- Maximize third party financing in applicable developments (i.e. West General Aviation Campus)
- Limit use of debt financing
- Maintain a reasonable airline cost per enplanement

Through the financial analysis process, the following key conclusions/observations have been identified:

- Maximize AIP & PFC Funding Resources: AIP Grant funding is anticipated to reach \$71.3 million, or 60.8% of the total capital improvement costs identified in the master plan throughout the 20-year planning horizon (\$40.9 million through entitlement funding & \$30.4 million in discretionary funding). Because the majority of projected PFC funds are already committed to debt service, the remaining projected PFC revenues are anticipated to fund only \$3.0 million, or 2.6% of the capital improvement costs¹.
- Airport Operating Cash: Maximize the application of airport operating cash to minimize the necessity to secure funds through debt service. Approximately \$35.4 million or 30.2% of the total capital improvement costs are assumed to be funded with airport operating cash. Key consideration is the current airline rate methodology in which a portion of nonairline revenue is applied as a credit to the landing fee calculation. While this methodology impacts the level of operating cash available, the objective of a reasonable cost structure for airlines is maintained.
- Third Party & Customer Facility Charge (CFC) Funding Resources: The finance plan assumes a portion of the West General Aviation Campus development costs will be secured through third party financing/private hangars (\$3.0 million). The Consolidated

¹ PFC funding capacity estimated to be available after the payment of PFC eligible debt service on currently outstanding bonds

Rental Car Facility is anticipated to be funded with CFC revenue (additional CFC projections provided below).

- Limit Use of Debt Service/Financing: The financial projections identify that local resources are sufficient to fund the capital improvements identified without securing additional debt.
- **Airline Rates**: As identified as a key objective, the proposed financial plan took into consideration to maintain reasonable airline costs throughout the 20-year planning period:
 - Landing Fee: The landing fee is projected to reach \$4.63 in FY 2018 with increases in subsequent years (\$5.85 in FY 2023, \$7.02 in FY 2028, and \$8.83 in FY 2033). The proposed airfield capital improvements are not projected to have a significant effect on the landing fee rate as the financing plan assumes approximately 89% of the funding resources required for airfield projects will be secured through AIP & PFC resources. The projected increase in the landing fee rate is mainly attributed to the forecasted decrease in landed weight over the planning period².
 - **Cost per Enplanement**: Projected to reach \$11.96 by FY 2018 with modest increases in subsequent years (\$13.23 in FY 2023, \$14.50 in FY 2028, and \$15.77 in FY 2033). These increases are not considered unreasonable since the projections extend throughout the 20-year planning period (2.7% annually)
 - **Growth Factors**: The projected increase in the airline rates above are due to in large part, the forecasted growth in operating expenses (2.9% annually) while passenger enplanements are forecasted to grow at a slower/conservative rate (1.0% annually).
- Parking Revenue: Because of the "potential" to mitigate increases to the airline cost per enplanement, the financial plan assumes a credit of parking revenue will be applied to the landing fee calculation throughout the planning period. The parking rates currently in effect at the Airport appear to be within the range of parking rates charged at other airports of similar size, although the hourly rate for all three types of parking at LEX is at the low end of the range.

AIRPORT FINANCIAL FRAMEWORK

The Airport is owned, managed and operated by the Lexington-Fayette Urban County Airport Board (the Board). The Board, a political subdivision of the Commonwealth of Kentucky, consists of ten members who are appointed by the

Parking	LEX	Median	High	Low	
Short-Term Hourly	\$1.00 (after 1st hour)	\$2.00	\$4.00	\$1.00	
Short-Term Daily	\$14.00	\$13.00	\$24.00	\$7.00	
Long-Term Hourly	\$1.00 (after 1st hour)	\$2.00	\$2.25	\$1.00	
Long-Term Daily	\$11.00	\$8.50	\$15.00	\$5.00	
Economy Hourly	\$1.00 (after 1st hour)	\$2.00	\$3.00	\$1.00	
Economy Daily	\$8.00	\$8.00	\$10.00	\$4.25	
* Parking rate statistics from 27 airports with annual enplanements ranging from 300,000 to 600,000					

² Changes in frequency and equipment types anticipated to decrease landed weight (larger aircraft with less frequency)

Mayor of the Urban County Government. The Board employs an Executive Director that is directly responsible for the Airport's business and operational activities. The Executive Director's management team consists of four Directors; Director of Finance and Administration, Director of Public Safety and Operations, Director of Engineering and Maintenance, and Director of Marketing & Community Relations. As of November 2012, the Airport had 81-full time and eight parttime employees.

The FY 2012 audited financial statements shows that as of June 30, 2012, the Board had Total Assets of \$176.2 million, Total Liabilities of \$64.4 million, and Net Assets of \$111.7 million. The Airport's operating revenue sources for FY 2012 included:

- Airlines (terminal rents and landing/per turn fees): \$5.0 million or 36.9% of total operating revenues
- Auto Parking: \$4.5 million or 32.7% of total operating revenues
- ♦ Ground Transportation: \$2.1 million or 15.2% of total operating revenues
- ♦ Other Sources: \$2.1 million or 15.3% of total operating revenues

Airport management's focus on cost containment was demonstrated in FY 2012, when total operating expenses decreased (from \$10.8 million in FY 2011 to \$10.0 million in FY 2012). This decrease was primarily due to a \$0.5 million decrease in administrative expenses and a \$0.3 million decrease in the safety, rescue, and security expense category. Airport management has strengthened the Airport's debt profile by using available Airport reserves to pay down higher interest rate debt and refinanced approximately \$50 million of variable rate debt to a fixed rate structure to take advantage of the historically low interest rate environment. These actions allowed the Airport to retain significantly less interest rate exposure and effectively reduced other risks associated with the variable rate.

PROPOSED FINANCING PLAN

In developing the proposed financing plan, applicable funding sources were evaluated against project eligibility/priority to determine the best use of each funding source. To assist in the decision making process, the FAA funding eligibility of each capital improvement project identified in the master plan was established. **Table 1 and 2** presents the proposed financing plan established through the analysis process.

AIRPORT IMPROVEMENT PROGRAM (AIP) GRANTS

FAA awards AIP grants (entitlement & discretionary) to construct and maintain infrastructure projects that increase the capacity, safety and security at airports across the United States. The Airport's AIP entitlement funding capacity was projected throughout the planning period and matched against the anticipated AIP eligible capital improvement projects identified in the master plan. AIP eligible costs in excess of AIP entitlement balance were considered for discretionary funding based on the nature of each project.

The financial plan's assumption regarding the allocation of discretionary grants for certain capital improvement projects took into consideration the professional judgment of the master plan authors and the local history of working with FAA Airport's District Office. **Table 3** presents the projections of AIP grant capacity throughout the planning period (\$71.8 million).

PASSENGER FACILITY CHARGE (PFC) FUNDS

The financial plan does take into consideration PFC funds, when available, to assist in meeting the required local match for capital improvement projects being implemented with AIP grants. The Airport currently collects a PFC of \$4.50 per enplaned passenger and has approximately \$87.8 million in approved PFC projects. Of the current approved PFC projects, \$87.4 million was secured through debt service and the Airport applies PFC revenue to the payment of the debt service. The financial analysis identified approximately \$3.0 million is PFC capacity to fund eligible capital improvement projects once payments are made to current outstanding debt service requirements. **Table 4** shows the projected PFC collections and uses during the forecast period.

AIRPORT OPERATING CASH

The Airport has the authority to allocate operating cash for any legal airport purpose including funding the capital improvement projects identified in the master plan. The financial plan assumes that \$35.5 million, or 30.2% of the total capital improvement costs identified in the planning period will be funded with operating cash.

It is important to understand that the airport has a goal of maintaining a 365 day operating cash reserve. The financial analysis also established a priority on not issuing additional debt if practicable.

THIRD PARTY/TENANT & CUSTOMER FACILITY CHARGE (CFC) FUNDS

West General Aviation Campus

The financial plan assumes that a significant portion of the West General Aviation Campus development will be secured through third party/tenant sources (private investment). The development of the West General Aviation Campus development has been programed in three phases based on adequate demand/interest by potential users. Third party/tenant funding of \$3.0 million is anticipated for the West General Aviation Campus development.³

³ The Airports new lease policy is designed to enhance private/public partnership through favorable lease terms based on level of investment. Additional third party/tenant financing could be secured based on the new lease policy terms.

Consolidated Rental Car Facility

The Airport currently maintains a Customer Facility Charge (CFC) of \$2.00 per transaction day. CFC revenues are allocated to debt service which was secured for the previous rental car facility improvements (terminal building & covered rental ready lot). The proposed Consolidated Rental Car Facility is assumed to be funded with CFC revenues generated throughout the planning pe-

riod. The Airport's current CFC rate of \$2.00 per transaction day is on the low end of the spectrum compared to other airports across the country. The financial plan assumes that a modest increase in the CFC rate per transaction day to \$2.50 in FY 2014 and to \$3.50 in FY 2015. Under the proposed increase, sufficient CFC capacity is generated above the current debt service requirement to fund the consolidated rental car facility project⁴.

Airport ID	Airport Name	Enplanements	CFC Rate	Collection Method					
PSP	Palm Springs Intl	759,510	\$10.00	Per Rental					
SBA	Santa Barbara Muni	367,328	\$10.00	Per Rental					
TRI	Tri-Cities Rgnl TN/VA	220,586	\$9.00	Per Rental					
HSV	Huntsville Intl-Carl T Jones Field	614,601	\$7.00	Transaction Day					
CAE	Columbia Metropolitan	487,474	\$6.00	Transaction Day					
SDF	Louisville Intl-Stanford Field	1,650,707	\$5.00	Per Rental					
JAN	Jackson-Evers Intl	615,622	\$5.00	Transaction Day					
BTR	Baton Rouge Metropolitan, Ryan Field	396,403	\$4.90	Transaction Day					
FAT	Fresno Yosemite Intl	615,320	\$4.50	Transaction Day					
ITO	Hilo Intl	605,101	\$4.50	Transaction Day					
ECP	Northwest Florida Beaches Intl	417,902	\$4.50	Transaction Day					
SGF	Springfield-Branson National	349,091	\$4.50	Transaction Day					
PNS	Pensacola Gulf Coast Rgnl	750,190	\$4.25	Transaction Day					
PHF	Newport News/Williamsburg Intl	516,789	\$4.25	Transaction Day					
AVL	Asheville Rgnl	361,617	\$4.25	Transaction Day					
ICT	Wichita Mid-Continent	740,675	\$4.00	Transaction Day					
BTV	Burlington Intl	636,018	\$4.00	Transaction Day					
CVG	Cincinnati/Northern Kentucky Intl	3,422,466	\$3.75	Transaction Day					
MDT	Harrisburg Intl	655,294	\$3.75	Transaction Day					
VPS	Eglin AFB	434,455	\$3.75	Transaction Day					
ILM	Wilmington Intl	395,156	\$3.75	Transaction Day					
CRP	Corpus Christi Intl	322,903	\$3.75	Transaction Day					
XNA	Northwest Arkansas Rgnl	538,850	\$3.50	Transaction Day					
LBB	Lubbock Preston Smith Intl	503,580	\$3.50	Transaction Day					
MLI	Quad City Intl	412,470	\$3.30	Transaction Day					
SAV	Savannah/Hilton Head Intl	785,251	\$3.00	Per Rental					
ACY	Atlantic City Intl	668,930	\$3.00	Transaction Day					
FNT	Bishop Intl	473,113	\$3.00	Per Rental					
BIL	Billings Logan Intl	407,375	\$3.00	Transaction Day					
GPT	Gulfport-Biloxi Intl	395,350	\$3.00	Transaction Day					
EUG	Mahlon Sweet Field	393,504	\$3.00	Transaction Day					
AMA	Rick Husband Amarillo Intl	392,815	\$3.00	Transaction Day					
PSC	Tri-Citie s	327,008	\$3.00	Transaction Day					
SFB	Orlando Sanford Intl	768,938	\$2.00	Transaction Day					
LEX	Blue Grass	533,952	\$2.00	Transaction Day					
ABE	Lehigh Valley Intl	428,332	\$2.00	Per Rental					
CID	The Eastern Iowa	431,874	\$1.76	Transaction Day					
Averag	e CFC/Transaction Day (Excludes/Per	Rental Locations)	\$3.81/	Transaction Day					

⁴ Alternatively, the Airport may elect to leverage CFC revenues by issuing a CFC-backed bond to finance the consolidated rental car facility if the Airport determines the current CFC rate of \$2.00 per transaction day should remain in place.

						Table 1										
Proposed Funding Plan for Master Plan Projects																
				Medi	um	Aviation Fo	reca	st Scenario								
Projects		Total		AIP (Gran	ts		Total AIP	р	AVCO PEC	Δ	irnort Funds		CARBS	3r	d Party and
110jetts		Totai	F	Intitlement	D	iscretionary		Grants	-	Algonic	Л	nport i unus		GARD5	CJ	FC Funding
TERMINAL PROJECTS																
Terminal - HVAC Equip. Replacement	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Terminal - Escalator	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Customs Facility (Concourse A)	\$	2,400,000	\$	1,639,000	\$	-	\$	1,639,000	\$	-	\$	761,000	\$	-	\$	-
Total Terminal Projects	\$	2,400,000	\$	1,639,000	\$	-	\$	1,639,000	\$	-	\$	761,000	\$	-	\$	-
AIRFIELD PROJECTS	\$	-														
Snow Removal Equipment	\$	520,000	\$	468,000	\$	-	\$	468,000	\$	-	\$	52,000	\$	-	\$	-
Taxiway Safety Enhancement Env. Asses.	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Taxiway Safety Enhancement Design	\$	2,400,000	\$	2,160,000	\$	-	\$	2,160,000	\$	-	\$	240,000	\$	-	\$	-
Taxiway Safety Enhancement Construction	\$	35,615,000	\$	13,549,000	\$	18,833,600	\$	32,382,600	\$	-	\$	3,232,400	\$	-	\$	-
Runway 4-22 Overlay	\$	20,000,000	\$	3,432,000	\$	11,568,000	\$	15,000,000	\$	3,000,000	\$	2,000,000	\$	-	\$	-
Airport Fuel Farm Upgrade/Rehabiliation	\$	1,000,000	\$	-	\$	-	\$	-	\$	-	\$	1,000,000	\$	-	\$	-
Taxiway A Rehabilitation	\$	3,740,000	\$	2,771,000	\$	-	\$	2,771,000	\$	-	\$	969,000	\$	-	\$	-
Runway 9-27 Extension	\$	10,500,000	\$	9,450,000	\$	-	\$	9,450,000	\$	-	\$	1,050,000	\$	-	\$	-
Equipment Purchases	\$	8,000,000	\$	7,200,000	\$	-	\$	7,200,000	\$	-	\$	800,000	\$	-	\$	-
Total Airfield Projects	\$	81,775,000	\$	39,030,000	\$	30,401,600	\$	69,431,600	\$	3,000,000	\$	9,343,400	\$	-	\$	-
ROADWAY																
Pavement Rehabilitation - Landside	\$	3,250,000	\$	675,000	\$	-	\$	675,000	\$	-	\$	2,575,000	\$	-	\$	-
GENERAL AVIATION																
West General Aviation Development	\$	6,000,000	\$	-	\$	-	\$	-	\$	-	\$	3,000,000	\$	-	\$	3,000,000
RENTAL CAR																
QTA Design and Construction	\$	4,500,000	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	4,500,000
PARKING																
Parking Lot Expansion	\$	12,500,000	\$	-	\$	-	\$	-	\$	-	\$	12,500,000	\$	-	\$	-
OTHER																
Local Only Projects	\$	7,250,000	\$	-	\$	-	\$	-	\$	-	\$	7,250,000	\$	-	\$	-
TOTAL MASTER PLAN PROJECTS	\$	117,675,000	\$	41,344,000	\$	30,401,600	\$	71,745,600	\$	3,000,000	\$	35,429,400	\$	-	\$	7,500,000

							Table 2												
						Blu	e Grass Airp	ort											
					Proposed Se	chec	lule for Mast	er P	lan Projects										
					Medium	ı Av	viation Foreca	ist S	cenario										
			Annual Pro	oject	tions, FY 2013	3 - F	Y 2018; Five-	Yea	r Increments	Aft	er FY 2018								
Projects	L	TOTAL	FY 2013		FY 2014		FY 2015		FY2016	FY 2017		FY2018		F	Y 2019-2023	F	Y 2024-2028	F	Y 2029-2033
TERMINAL PROJECTS																			
Terminal - HVAC Equip. Replacement	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Terminal - Escalator	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Customs Facility (Concourse A)	\$	2,400,000	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	2,400,000	\$	-	\$	-
Total Terminal Projects	\$	2,400,000	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	2,400,000	\$	-	\$	-
AIRFIELD PROJECTS																			
Snow Removal Equipment	\$	520,000	\$ 520,000	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Taxiway Safety Enhancement Env. Asses.	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Taxiway Safety Enhancement Design	\$	2,400,000	\$ -	\$	2,400,000	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Taxiway Safety Enhancement Construction	\$	35,615,000	\$ -	\$	12,170,000	\$	9,200,000	\$	8,570,000	\$	5,675,000	\$	-	\$	-	\$	-	\$	-
Runway 4-22 Overlay	\$	20,000,000	\$ -	\$	-	\$	-	\$	-	\$	-	\$	20,000,000	\$	-	\$	-	\$	-
Airport Fuel Farm Upgrade/Rehabiliation	\$	1,000,000	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	1,000,000	\$	-	\$	-
Taxiway A Rehabilitation	\$	3,740,000	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	3,740,000	\$	-	\$	-
Runway 9-27 Extension	\$	10,500,000	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	10,500,000
Equipment Purchases	\$	8,000,000	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	4,000,000	\$	2,000,000	\$	2,000,000
Total Airfield Projects	\$	81,775,000	\$ 520,000	\$	14,570,000	\$	9,200,000	\$	8,570,000	\$	5,675,000	\$	20,000,000	\$	8,740,000	\$	2,000,000	\$	12,500,000
ROADWAY																			
Pavement Rehabilitation - Landside	\$	3,250,000	\$ -	\$	1,750,000	\$	750,000	\$	-	\$	-	\$	-	\$	750,000	\$	-	\$	-
GENERAL AVIATION																			
West General Aviation Development	\$	6,000,000	\$ -	\$	-	\$	3,000,000	\$	-	\$	1,000,000	\$	-	\$	2,000,000	\$	-	\$	-
RENTAL CAR																			
QTA Design and Construction	\$	4,500,000	\$ -	\$	-	\$	-	\$	4,000,000	\$	500,000	\$	-	\$	-	\$	-	\$	-
PARKING																			
Parking Lot Expansion	\$	12,500,000	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	6,500,000	\$	-	\$	6,000,000
OTHER																			
Local Only Projects	\$	7,250,000	\$ -	\$	-	\$	500,000	\$	-	\$	500,000	\$	-	\$	2,000,000	\$	3,500,000	\$	750,000
TOTAL MASTER PLAN PROJECTS	\$	117,675,000	\$ 520,000	\$	16,320,000	\$	13,450,000	\$	12,570,000	\$	7,675,000	\$	20,000,000	\$	22,390,000	\$	5,500,000	\$	19,250,000

	T able 3 Projected Airport Improvement Plan (AIP) Entitlements Medium Aviation Forecast Scenario																		
	Annual Projections, FY 2013 - FY 2018; Five-Year Increments After FY 2018																		
	Fisc	al Year		FY 2013		FY 2014		FY 2015		FY 2016		FY 2017		FY 2018		FY 2023	FY 2028		FY 2033
Applicable Enplanements for cal	cula ti	on ¹		530,000		520,000		526,707		529,491		534,786		540,134		567,686	596,644		627,078
Beginning Balance					\$	2,951,000	\$	906,000	\$	906,000	\$	906,000	\$	906,000	\$	6,914,000	\$ 8,671,000	\$	8,787,000
Entitlement Apportionment ¹																			
First 50,000 Passengers	\$	15.60	\$	780,000	\$	780,000	\$	780,000	\$	780,000	\$	780,000	\$	780,000	\$	780,000	\$ 780,000	\$	780,000
Next 50,000 Passengers	\$	10.40	\$	520,000	\$	520,000	\$	520,000	\$	520,000	\$	520,000	\$	520,000	\$	520,000	\$ 520,000	\$	520,000
Next 400,000 Passengers	\$	5.20	\$	2,080,000	\$	2,080,000	\$	2,080,000	\$	2,080,000	\$	2,080,000	\$	2,080,000	\$	2,080,000	\$ 2,080,000	\$	2,080,000
Next 500,000 Passengers	\$	1.30	\$	39,000	\$	26,000	\$	35,000	\$	38,000	\$	45,000	\$	52,000	\$	88,000	\$ 126,000	\$	165,000
Passengers over 1,000,000	\$	1.00	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -	\$	-
Estimated AIP Entitlements			\$	3,419,000	\$	3,406,000	\$	3,415,000	\$	3,418,000	\$	3,425,000	\$	3,432,000	\$	3,468,000	\$ 3,506,000	\$	3,545,000
Estimated Discretionary Grants			\$	_	\$	7,991,100	\$	4,865,000	\$	4,295,000	\$	1,682,500	\$	11,568,000	\$		\$ 	\$	_
Total Estimated AIP Grants			\$	3,419,000	\$	11,397,100	\$	8,280,000	\$	7,713,000	\$	5,107,500	\$	15,000,000	\$	3,468,000	\$ 3,506,000	\$	3,545,000
AIP Expenditures			\$	(468,000)	\$	(13,442,100)	\$	(8,280,000)	\$	(7,713,000)	\$	(5,107,500)	\$	(15,000,000)	\$	(1,800,000)	\$ -	\$	(3,150,000)
Entitlement Ending Balance			\$	2,951,000	\$	906,000	\$	906,000	\$	906,000	\$	906,000	\$	906,000	\$	8,582,000	\$ 12,177,000	\$	9,182,000
¹ Enplanements from a prior cale used to calculate FY 2013 entitle	ndar emen	year (O its.	CY) a	are used to c	alcı	ulate entitlen	neni	ts for the cu	ren	ıt fiscal year	(FY). For examp	ole,	CY 2011 enpl	ane	ments are			

						7	Гab	ole 4										
				Project	.ed `	Passenger Fa	acilit	ty Charge (P	FC)	Revenue								
					Μ	edium Aviat	ion	Forecast Sce	nari	ю								
	Annual Projections, FY 2013 - FY 2018; Five-Year Increments After FY 2018																	
Fisc	cal Year	FY 2013		FY 2014		FY 2015		FY 2016		FY 2017		FY 2018		FY 2023		FY 2028		FY 2033
Beginning Balance		\$ 10,889,240	\$	13,227,031	\$	13,851,977	\$	13,860,181	\$	13,536,962	\$	13,085,335	\$	7,698,121	\$	6,145,050	\$	2,555,636
PFC Collections					Ī													
Enplanements ¹		530,000	,	520,000	1	526,707		529,491		534,786		540,134	:	567,686		596,644		627,078
Less Ineligible Traffic:		(21,000)	,	(21,000)	1	(21,000)		(21,000)	l	(21,000)		(22,000)		(23,000)		(24,000)		(25,000)
PFC Eligible Enplanements		509,000		499,000	1	506,000		508,000		514,000		518,000		545,000		573,000		602,000
Gross PFC Revenue:		\$ 2,291,000	\$	2,246,000	\$	2,277,000	\$	2,286,000	\$	2,313,000	\$	2,331,000	\$	2,453,000	\$	2,579,000	\$	2,709,000
Airline Collection Fee:		\$ (252,000)	\$	(247,000)	\$	(250,000)	\$	(251,000)	\$	(254,000)	\$	(256,000)	\$	(270,000)	\$	(284,000)	\$	(298,000)
Net PFC Revenues		\$2,039,000		\$1,999,000		\$2,027,000		\$2,035,000		\$2,059,000		\$2,075,000		\$2,183,000		\$2,295,000		\$2,411,000
PFC Expenditures					[
PAYGO				ļ	1	ļ			l l									
Existing Projects			\$	(18,714)	\$	(18,714)	\$	(18,714)	\$	(18,714)	\$	(18,714)	\$	(18,714)	\$	(18,714)	\$	(18,714)
Master Plan Projects	1	\$ -	\$	-	\$	-	\$	-	\$	-	\$	(3,000,000)	\$	-	\$	-	\$	-
Debt Service				I	1	I			l									
Existing Projects	-	\$ -	\$	(1,688,503)	\$	(2,341,460)	\$	(2,677,694)	\$	(2,821,268)	\$	(2,831,060)	\$	(2,729,774)	\$	(4,202,234)	\$	(3,028,370)
Total Expenditures	1	\$ -	\$	(1,707,216)	\$	(2,360,173)	\$	(2,696,408)	\$	(2,839,981)	\$	(5,849,773)	\$	(2,748,487)	\$	(4,220,948)	\$	(3,047,083)
Interest Income	1	\$ 298,791	\$	333,163	\$	341,377	\$	338,189	\$	329,354	\$	280,935	\$	189,832	\$	138,154	\$	68,673
Ending Balance	1	\$ 13,227,031	\$	13,851,977	\$	13,860,181	\$	13,536,962	\$	13,085,335	\$	9,591,497	\$	7,322,466	\$	4,357,256	\$	1,988,226
1				T 00		1.0.1			,			(1) (°		1 17.		1 1.1		. 1.6

The aviation forecast provided to Unison was not based on a June 30 year end, the Airport's Fiscal Year. For purposes of the financial plan, Unison adjusted the official forecast to coincide with the LEX's fiscal year.

AIRLINE RATES AND CHARGES

Airlines providing service at Lexington operate under an Aircraft Operator Airport Use Permit which defines the airlines' basic rights and obligations for the use of the airport and occupancy of space in the passenger terminal building. The permit may be terminated by an airline upon 30 days of prior notice.

The Airport currently establishes airline rates and charges through the fiscal budget process using a compensatory based cost recovery methodology. The financial plan assumes that the current rate and charges methodology will continue throughout the 20-year planning period. To establish the airline rates and charges, the operating expense budget (by department) is allocated to direct and indirect cost centers based on percentages determined by management:

Direct Cost Centers

- Terminal
- Airfield
- Commercial Aprons
- Airline incentives
- General Aviation
- Other
- Parking
- Rental Car

Other Buildings

Indirect Cost Centers

- Roadways
- Public Safety
- Maintenance
- Custodial
- Administrative

LANDING FEE CALCULATION

The landing fee is calculated based on operating expenses, capital expenditures, and annual debt service applicable to the following cost centers: Airfield, Commercial Aprons, and General Aviation. The Net Airfield requirement is calculated as the sum of the aforementioned cost centers, minus fuel flowage revenues and a credit for a portion of the non-airline revenues. In FY 2012, the landing fee rate was \$2.75 per 1,000 pounds with the FY 2013 budget setting a rate of \$2.86 per 1,000 pounds.

TERMINAL RENT CALCULATION

The terminal rental rate is established through the sum of operating expenses, capital costs, and debt service associated with the terminal building, plus pension costs, less a credit for the revenue received by the Airport for the "per turn" charge. The terminal rental rate is applied to both exclusive and preferential space. In addition, a common use space rate is calculated based on the number of enplaned passengers. In FY 2012, the terminal rental rate was \$41.56 per square foot with a common use space fee of \$4.51 per enplaned passenger. The FY 2013 budget established a terminal rental rate of \$41.56 per square foot with a common use space fee of \$4.78 per enplaned passenger.

A "per turn" charge is paid by airlines that do not lease or pay for terminal space. The charge is calculated by dividing the total terminal rent (which would be paid through traditional methods) by the number of annual turns conducted by the airline. A multiplier is then applied to the rate.

FINANCIAL PROJECTIONS

OPERATING REVENUE

The following projections were developed as part of the financial analysis for operating revenues (**Table 5**):

- Total annual operating revenues are projected to increase from \$13.5 million in FY 2013 to \$22.9 million in FY 2033.
- Annual airline revenues are projected to increase from \$5.1 million in FY 2013 to \$9.9 million in FY 2033.
- ♦ Parking revenue is projected to increase to \$7.6 million annually in FY 2033.
- Annual ground transportation revenue is projected to increase from \$2.0 million in FY 2013 to \$2.5 million in FY 2033.
- Annual concession and rentals are projected to increase from approximately \$921,000 in FY 2013 to \$949,000 in FY 2033. The current concession revenue at the Airport appears to be in line with industry standards for small hub airports.
- Annual general aviation revenue is projected to increase from \$1.0 million in FY 2013 to \$1.6 million in FY 2033. General aviation revenue includes landing fees, parking fees, FBO revenue, and rents and concessions.

OPERATING EXPENSES

The Airport's FY 2013 budget was utilized as the basis to calculate operating expenses with adjustments made for actual year-to-date costs in FY 2013 based on information provided. Total annual operating expenses are projected to increase from \$10.8 in FY 2013 to \$18.3 million in FY 2033 (average annual rate increase of 2.7%). Salaries, wages, and benefits are projected to increase at an annual rate of 3.5% based on recent historical trends.

NET OPERATING INCOME (BEFORE DEBT SERVICE AND CAPITAL EXPENDITURES)

Annual net operating income is projected to increase from \$2.8 million in FY 2013 to \$4.5 million in FY 2033.

AIRLINE RATES AND CHARGES

The following key considerations are assumed for airline rates and charges in the financial plan (**Table 6**):

- Landing Fees: The financial plan projects an increase in the landing fee from \$2.86 per 1,000 pounds in FY 2013 to \$8.83 per 1,000 pounds in FY 2033 (average annual increase of 4.4%).
- Terminal Rent and Fees: The annual net terminal requirement is projected to increase from \$5.0 million in FY 2013 to \$8.6 million in FY 2033 (average annual increase of 2.7%).
 - **Terminal Rental Rate**: Projected to increase from \$41.56 in FY 2013 to \$71.93 in FY 2033 (average annual increase of 2.8%).
 - Common Use Fee: Projected to increase from \$4.78 in FY 2013 to \$6.91 in FY 2033 (average annual increase of 1.9%). It should be noted that a significant increase in the common use fee is anticipated in FY 2019 if the implementation of the Concourse A Customs Facility occurs.
 - "Per Turn" Charge: Projected to increase to a rate of \$970 by FY 2033 (average annual rate of 4.0%).
- Airline Cost per Enplanement: As a key objective, the airline cost per enplanement is projected to increase to \$15.77 by FY 2033 (average annual rate of 2.7%). Although the airline costs are projected to increase over the planning period, such increases are not considered unreasonable as the projections are looking forward 20-years. The main cause of the projected increase in airline cost per enplanement is attributed to the anticipated growth in operating expenses (2.9% annually) compared to a conservative increase in passenger enplanements (1.0% annually) through the planning period.

Recognizing the budget process for each fiscal year takes into consideration a wide range of variables, it is important to note that adjustments to the projected airline rates and charges will likely occur. Key considerations during the budgetary process include the level of "credit" from nonairline revenue, debt service (short-term paper or long-term bonds), anticipated capital program expenditures, and unanticipated capital outlays.

							Та	ble 5										
	Blue Grass Airport																	
						Projected N	et C	Operating Inc	com	e								
					N	/ledium Avia	tio	n Forecast Sc	ena	rio								
		A	\nn	ual Projectio	ns, l	FY 2013 - FY	201	8; Five-Year	Inc	rements Afte	er F	Y 2018						
Operating Revenues		FY 2013		FY 2014		FY 2015		FY 2016		FY 2017		FY 2018		FY 2023		FY 2028		FY 2033
Airline Revenue and Fees	\$	5,136,000	\$	5,096,000	\$	5,868,000	\$	6,061,000	\$	6,258,000	\$	6,458,000	\$	7,510,000	\$	8,652,000	\$	9,890,000
Auto Parking	\$	4,211,000	\$	4,150,000	\$	4,212,000	\$	4,254,000	\$	4,735,000	\$	4,782,000	\$	5,579,000	\$	6,508,000	\$	7,593,000
Ground Transportation	\$	2,002,000	\$	1,979,000	\$	2,068,000	\$	2,095,000	\$	2,115,000	\$	2,135,000	\$	2,248,000	\$	2,368,000	\$	2,494,000
Concession and Rentals	\$	921,000	\$	885,000	\$	726,000	\$	749,000	\$	753,000	\$	757,000	\$	815,000	\$	879,000	\$	949,000
General Aviation	\$	1,021,000	\$	1,030,000	\$	1,181,000	\$	1,184,000	\$	1,187,000	\$	1,242,000	\$	1,316,000	\$	1,458,000	\$	1,620,000
Other	\$	263,000	\$	186,000	\$	191,000	\$	196,000	\$	201,000	\$	206,000	\$	231,000	\$	256,000	\$	281,000
Total Operating Revenues	\$	13,554,000	\$	13,326,000	\$	14,246,000	\$	14,539,000	\$	15,249,000	\$	15,580,000	\$	17,699,000	\$	20,121,000	\$	22,827,000
Operating Expenses																		
Salaries, Wages and Benefits	\$	5,753,000	\$	5,909,000	\$	6,116,000	\$	6,330,000	\$	6,551,000	\$	6,781,000	\$	8,053,000	\$	9,565,000	\$	11,360,000
Marketing and Advertising	\$	574,000	\$	559,000	\$	563,000	\$	566,000	\$	570,000	\$	574,000	\$	593,000	\$	614,000	\$	635,000
Insurance	\$	336,000	\$	365,000	\$	372,000	\$	380,000	\$	388,000	\$	397,000	\$	442,000	\$	493,000	\$	550,000
Computer Maintenance and Expense	\$	176,000	\$	170,000	\$	174,000	\$	177,000	\$	181,000	\$	185,000	\$	205,000	\$	228,000	\$	254,000
Consulting Fees	\$	94,000	\$	94,000	\$	95,000	\$	97,000	\$	100,000	\$	102,000	\$	113,000	\$	126,000	\$	141,000
US Customs Service	\$	154,000	\$	152,000	\$	155,000	\$	158,000	\$	161,000	\$	165,000	\$	184,000	\$	205,000	\$	229,000
Equipment Rental	\$	12,000	\$	16,000	\$	16,000	\$	16,000	\$	17,000	\$	17,000	\$	19,000	\$	21,000	\$	24,000
Maintenance	\$	1,328,000	\$	1,158,000	\$	1,181,000	\$	1,205,000	\$	1,232,000	\$	1,259,000	\$	1,452,000	\$	1,618,000	\$	1,836,000
Memberships and Publications	\$	74,000	\$	82,000	\$	83,000	\$	85,000	\$	87,000	\$	89,000	\$	99,000	\$	110,000	\$	123,000
Office Supplies	\$	31,000	\$	31,000	\$	31,000	\$	32,000	\$	33,000	\$	33,000	\$	37,000	\$	42,000	\$	46,000
Training - Professional Development	\$	68,000	\$	66,000	\$	67,000	\$	69,000	\$	70,000	\$	72,000	\$	80,000	\$	89,000	\$	99,000
Professional Services	\$	367,000	\$	301,000	\$	307,000	\$	314,000	\$	321,000	\$	328,000	\$	365,000	\$	407,000	\$	454,000
Supplies	\$	439,000	\$	450,000	\$	459,000	\$	469,000	\$	479,000	\$	490,000	\$	546,000	\$	609,000	\$	679,000
Travel	\$	114,000	\$	118,000	\$	120,000	\$	123,000	\$	125,000	\$	128,000	\$	143,000	\$	159,000	\$	178,000
Utilitie s	\$	1,105,000	\$	980,000	\$	1,000,000	\$	1,021,000	\$	1,043,000	\$	1,066,000	\$	1,188,000	\$	1,325,000	\$	1,477,000
Other Expenses	\$	132,000	\$	152,000	\$	155,000	\$	159,000	\$	162,000	\$	165,000	\$	184,000	\$	205,000	\$	228,000
Total Operating Expenses	\$	10,757,000	\$	10,603,000	\$	10,894,000	\$	11,201,000	\$	11,520,000	\$	11,851,000	\$	13,703,000	\$	15,816,000	\$	18,313,000
Net Operating Income (Prior to Debt Service Payments, Reserve Funding, & Local Capital Expenditures)		\$2,797,000		\$2,723,000		\$3,352,000		\$3,338,000		\$3,729,000		\$3,729,000		\$3,996,000		\$4,305,000		\$4,514,000

								Table 6											
	Blue Grass Airport																		
						A	\irli	ne Revenues	and	d Fees									
						Media	um	Aviation For	ecas	st Scenario									
				Annual F	roj	jections, FY 20)13 ·	- FY 2018; Fiv	ve-Y	'ear Incremen	nts	After FY 2018	3						
		Actual										Proj	ecte	d					
Airfield Costs		FY 2012		FY 2013		FY 2014		FY 2015		FY 2016		FY 2017		FY 2018		FY 2023	FY 2028		FY 2033
O&M Expenses	\$	4,725,639	\$	4,582,000	\$	4,521,000	\$	4,557,000	\$	4,683,000	\$	4,815,000	\$	4,952,000	\$	5,731,000	\$ 6,603,000	\$	7,638,000
Capital Expenses	\$	330,688	\$	1,109,000	\$	691,000	\$	1,145,000	\$	857,000	\$	568,000	\$	2,000,000	\$	200,000	\$ -	\$	350,000
Debt Service	\$	211,232	\$	21,000	\$	63,000	\$	371,000	\$	436,000	\$	464,000	\$	466,000	\$	446,000	\$ 526,000	\$	297,000
Subtotal Requirement	\$	5,267,559	\$	5,712,000	\$	5,275,000	\$	6,073,000	\$	5,976,000	\$	5,847,000	\$	7,418,000	\$	6,377,000	\$ 7,129,000	\$	8,285,000
Less: Fuel Flowage Fees	\$	(185,727)	\$	(202,000)	\$	(225,000)	\$	(210,000)	\$	(211,000)	\$	(211,000)	\$	(212,000)	\$	(213,000)	\$ (215,000)	\$	(217,000)
Landing Fee Credit	\$	(3,345,500)	\$	(3,770,000)	\$	(3,235,000)	\$	(3,467,000)	\$	(3,155,000)	\$	(2,941,000)	\$	(4,384,000)	\$	(2,769,000)	\$ (3,040,000)	\$	(3,430,000)
Net Airfield Requirement	\$	1,736,332	\$	1,740,000	\$	1,815,000	\$	2,396,000	\$	2,610,000	\$	2,695,000	\$	2,822,000	\$	3,395,000	\$ 3,874,000	\$	4,638,000
Total Airline Landed Weight (1,000 lbs)		632,491		608,000		635,000		629,000		622,000		616,000		610,000		580,000	552,000		525,000
Landing Fee (per 1,000 lbs.)		\$2.75		\$2.86		\$2.86		\$3.81		\$4.20		\$4.38		\$4.63		\$5.85	\$7.02		\$8.83
Terminal Costs																			
O&M Expenses	\$	4,844,973	\$	5,040,000	\$	4,979,000	\$	4,983,000	\$	5,129,000	\$	5,281,000	\$	5,437,000	\$	6,313,000	\$ 7,320,000	\$	8,508,000
Capital Expenses	\$	63,856	\$	44,000	\$	419,000	\$	300,000	\$	-	\$	-	\$	-	\$	-	\$ -	\$	-
Debt Service	\$	348,701	\$	35,000	\$	105,000	\$	612,000	\$	720,000	\$	766,000	\$	769,000	\$	736,000	\$ 868,000	\$	490,000
Pension Payments	\$	-	\$	142,000	\$	58,000	\$	58,000	\$	58,000	\$	58,000	\$	30,000	\$	-	\$ -	\$	-
Subtotal	\$	5,257,530	\$	5,261,000	\$	5,561,000	\$	5,953,000	\$	5,907,000	\$	6,105,000	\$	6,236,000	\$	7,049,000	\$ 8,188,000	\$	8,998,000
Less: Per Turn Fee Revenues	\$	(238,513)	\$	(243,000)	\$	(256,000)	\$	(256,000)	\$	(267,000)	\$	(267,000)	\$	(266,000)	\$	(302,000)	\$ (347,000)	\$	(384,000)
Net Terminal Requirement	\$	5,019,017	\$	5,018,000	\$	5,305,000	\$	5,697,000	\$	5,640,000	\$	5,838,000	\$	5,970,000	\$	6,747,000	\$ 7,841,000	\$	8,614,000
Airline Requirement																			
Terminal Rental Rate (per sq. ft.)		\$41.56		\$41.56		\$44.30		\$47.58		\$47.09		\$48.75		\$49.85		\$56.35	\$65.48		\$71.93
Common Use Fee (per enplanement)		\$4.51		\$4.78		\$4.65		\$4.87		\$4.77		\$4.89		\$4.95		\$5.98	\$6.61		\$6.91
Charge per Turn		\$410.00		\$440.00		\$440.00		\$460.00		\$480.00		\$500.00		\$520.00		\$660.00	\$830.00		\$970.00
Total Airline Revenues	\$	4,928,524	\$	4,898,000	\$	5,066,000	\$	5,869,000	\$	6,061,000	\$	6,257,000	\$	6,458,000	\$	7,510,000	\$ 8,652,000	\$	9,889,000
Enplanements		560,288		530,000		520,000		526,707		529,491		534,786		540,134		567,686	596,644		627,078
Cost per Enplanement		\$8.80		\$9.24		\$9.74		\$11.14		\$11.45		\$11.70		\$11.96		\$13.23	\$14.50		\$15.77

The Airport sets the airline rates and charges based on the budget and does not perform an annual settlement to reconcile to actual expenses.

The Capital Expenses list above are paid from airport operating cash that are included in the airline rate base. Capital Expenses paid from airport operating cash that are for non-airline projects are not included on this table.