

## **CHAPTER 7** **IMPLEMENTATION PLAN**

### **INTRODUCTION**

An implementation plan for Blue Grass Airport (LEX) has been prepared based upon the facility needs identified in the Facility Requirements and the Alternatives Analysis of possible solutions to meet these needs. The implementation plan presented herein describes the staging of proposed improvements, provides the basic financial requirements of each, and identifies various means of funding these improvements. It is the intent of this implementation plan to provide general financial guidance to the Lexington-Fayette Urban County Airport Board (LFUCAB) and airport staff in making policy decisions regarding the recommended development of the Airport over the 20-year planning period.

### **PROGRAM PHASING AND COST ESTIMATING**

An initial development schedule for the proposed improvements was prepared based upon facility requirements, which were determined by the levels of passenger enplanements and operational forecasts. Therefore, since actual activity levels realized at the Airport may vary, it is important that the staging of these proposed improvement projects remain sensitive to such variation. Given that some time has passed between the development of the aviation forecasts and this implementation plan, the staging of projects begins with 2004 instead of the first year (2002) of the aviation forecasts. Some projects may take precedence over other projects, depending on changes in priority levels and development projects. Thus, a list of prioritized improvements was established based on the urgency of need, ease of implementation, logic of project sequencing, and Airport staff input. The objective was to establish an efficient order for project development and implementation that satisfied the forecasted aviation activity for LEX and the needs expressed by airport staff. The development schedule is divided into four general stages: the initial short-term (2004-2006), the remaining short-term (2007-2008), the intermediate-term (2009-2013), and the long-term (2014-2023). The short-term years were divided into an 'initial' and 'remaining' period and examined separately to differentiate between the short-term projects financed with LFUCAB's 2003 Airport Revenue Bonds (2003 Bonds), and those projects for which financing was not yet secured.

Cost estimates were developed for each project from 2007 through 2023. The projected costs were based on the preliminary layouts developed as a part of the Alternatives Analysis. Estimated quantities of major items, such as pavement or fill material, were used in conjunction with unit cost values to determine a construction cost. A final project cost was then determined by adding set percentages of the construction cost for mobilization, drainage (where applicable), and engineering services. Additionally, a contingency amount of 15 percent of the estimated construction cost was added to account for items that were unknown at the time.

### **CAPITAL IMPROVEMENT PROGRAM**

The projects and their estimated costs for each period are discussed in the following sections. The Capital Improvement Program (CIP), which includes the development schedule and project cost summaries, are presented in the following sections which discuss each development phase. The CIP for each period presents the improvements required during that period, but it does not assume how financially feasible it will be for LFUCAB to undertake these projects. A subsequent section of this chapter will address in general terms the financial feasibility of this development program. Cost projections are based on constant 2003 dollars and include estimated engineering fees and contingencies. The projections, however, should be used for planning purposes

only and do not imply that funding for these will necessarily be available. Each year indicates the initiation of design and/or environmental efforts as identified in these tables. It is assumed that construction would be undertaken either in that same year or the next.

### Initial Short-Term Developments

Most of the projects shown in **Table 7-1** have been funded, primarily with proceeds from the the 2003 Bonds issuance and are expected to begin by the end of 2006. The largest undertaking in this short-term period is the safety area improvements along Runway 4-22. This project includes shifting the runway approximately 400 feet to the south and placing large quantities of fill material at the Runway 4 approach end. Terminal improvements during this period include renovations to the existing terminal interior; the addition of several gates to Concourse B, including the installation of two jet loading bridges; the construction of stairwells at Concourse B and C; and the development of an executive travel lounge. Several projects in the terminal area include airport entrance road improvements, the construction of a rental car parking garage, and the relocation of the air freight building. One adjustment to the projects included in the 2003 bond issuance will need to be made based upon the selected crosswind runway development. The bond issuance included \$3.3 million for a full rehabilitation of Runway 8-26; however, since the Master Plan recommends closing it and constructing a new crosswind runway with an alignment of 9-27 these funds should be committed to the new runway development. Based upon the cost estimate (of approximately \$4.9 million) for the initial construction of Runway 9-27 to a length of 3,500 feet, the \$3.3 million should cover the necessary environmental assessment, engineering services, and a significant portion of the construction costs.

Year Initiated	Development Item	Project Cost
2004	Concourses B & C Stairwells	\$ 450,000
2004	RSA Area Improvements (includes RW 4-22 & TW A extension)	\$ 31,000,000
2004	Taxiway A Rehabilitation	\$ 2,800,000
2004	Terminal Interior Modifications	\$ 2,500,000
2004	Concourse Gate Addition (Includes two jet loading bridges)	\$ 9,800,000
2004	PFC Application Development (Non-bond)	\$ 50,000
2004	PFC Program Administration (Non-bond)	\$ 202,099
2004	Air Freight Relocation	\$ 1,500,000
2004	Rental Car Ready/Return Lot	\$ 4,300,000
2004	Executive Travel Lounge (Observation Deck Modifications)	\$ 350,000
2004	Hangar Improvements (8 box/8 t-hangars)	\$ 565,000
2005	Airport Entrance Improvements	\$ 550,000
2005	Air Carrier Ramp Rehabilitation	\$ 2,000,000
2006	Runway 9-27, Phase 1 (EA-Design-Construction, Phase 1)	\$ 3,300,000
<b>INITIAL SHORT-TERM TOTAL</b>		<b>\$ 59,367,099</b>

Source: THE LPA GROUP INCORPORATED, 2003.

### Remaining Short-Term Developments

Even though the initial short-term CIP involves expenditures of nearly \$60 million, several other projects have been identified by this Master Plan as being needed within five years at LEX. These projects are presented in **Table 7-2**. Airfield projects during the remaining short-term period include the construction of Runway 9-27 and associated taxiways (including a portion of Taxiway B) and the relocation of the Taxiway A centerline to decrease operational delays. Three properties need to be acquired to support the Runway 9-27 development. Terminal area improvements during this period involve the addition of four jet loading bridges for Concourse B, the improvement to the airport loop road, and enhancements to all major parking lots. The developments slated for the remaining short-term period are estimated to cost approximately \$15 million.

<b>TABLE 7-2 REMAINING SHORT-TERM CIP (2007-2008)</b>		
<b>Year Initiated</b>	<b>Development Item</b>	<b>Project Cost</b>
2007	Taxiway A Centerline Relocation	\$ 2,716,986
2007	Acquire Downs Property (Approximately 20 acres)	\$ 1,000,000
2007	Acquire Scott and Hall Property (Approximately 121 acres)	\$ 1,815,000
2007	Construct Runway 9-27 Phase 1 (3,500 LF)	\$ 1,610,700
2007	Construct Taxiway B between Runway 9-27 and Taxiway A	\$ 554,145
2007	Annual Equipment Purchases (FAA and Non-FAA eligible)	\$ 20,000
2007	Annual Pavement Maintenance	\$ 20,000
2008	Additional Jet Loading Bridges (Four)	\$ 1,200,000
2008	Terminal Area Site 1 - Loop Road Enhancements	\$ 2,284,440
2008	Terminal Area Site 1 - Public Parking Enhancements	\$ 2,776,807
2008	Terminal Area Site 1 - Rental Car/Employee Parking Enhancements	\$ 791,587
2008	Install REILs and PAPIs on Runway 9-27	\$ 152,500
2008	Annual Equipment Purchases (FAA and Non-FAA eligible)	\$ 20,000
2008	Annual Pavement Maintenance	\$ 20,000
<b>REMAINING SHORT-TERM TOTAL</b>		<b>\$ 14,982,165</b>

Source: THE LPA GROUP INCORPORATED, 2003.

### Intermediate-Term Developments

A CIP for the period of 2009 through 2013 was also developed, although projects were not assigned a year for their initiation. It is assumed that a priority for these developments will be assigned as this timeframe draws near, especially since another master plan update will be undertaken during this period. **Table 7-3** lists the planned improvements for the intermediate-term, without assuming any specific priority. In addition to annual small equipment purchases and routine pavement maintenance, this development plan includes extensive terminal renovations and a bag claim expansion. The remaining projects during this intermediate period are related mostly to general aviation (GA) developments. As discussed in the Alternatives Analysis, facilities for non-jet GA users will be relocated along Runway 9-27, including T-hangars and a tie-down apron. Other GA developments are necessitated by the planned reconfiguration and rehabilitation of the existing GA area near the passenger terminal. Improvements in this area include the relocation of Taxiway D, a ramp expansion, and the construction of three conventional corporate hangars. This intermediate-term CIP, estimated to cost \$33.6 million, continues the

aggressive development needed at LEX for it to continue to have the necessary facilities to meet the projected demands.

<b>TABLE 7-3 INTERMEDIATE-TERM CIP (2009-2013)</b>	
<b>Development Item</b>	<b>Project Cost</b>
Annual Equipment Purchases (FAA and Non-FAA eligible) - 5 years	\$ 250,000
Annual Pavement Maintenance - 5 years	\$ 100,000
Airport Master Plan Update	\$ 400,000
Expansion of Bag Claim Area	\$ 2,086,188
Renovation of Existing Terminal Building (both floors)	\$ 18,357,888
Terminal Area Site 2 - Loop Road and Parking Enhancements	\$ 1,020,586
FBO Automobile Parking Area Improvements	\$ 388,636
Utilities for T-Hangars (adjacent to Runway 9-27)	\$ 495,930
GA Facility Site Work and 20,000 SY Ramp (No Buildings)	\$ 965,200
Environmental Buffer - Versailles Road Scenic Corridor	\$ 500,000
Construct T-Hangar Buildings off Runway 9-27 (48 units)	\$ 3,097,000
Construct Access Road from Versailles to new GA facilities	\$ 979,355
Self Serve Fuel and Wash Rack Facility	\$ 301,750
Connect Perimeter Road to GA Apron (adjacent to RW 9-27)	\$ 139,555
Demolition of L3 Communications Buildings	\$ 272,460
Realignment of Taxiway D and Ramp Rehabilitation	\$ 1,266,791
Develop Airport Observation Park	\$ 275,000
Demolition of T-hangars	\$ 276,130
Demolition of Hangar (Aerotech)	\$ 116,412
Construct Large Conventional Hangars (3 units)	\$ 2,077,050
Parking for Conventional Hangars (3 units)	\$ 232,561
<b>INTERMEDIATE-TERM TOTAL</b>	<b>\$ 33,598,492</b>

Source: THE LPA GROUP INCORPORATED, 2003.

### Long-Term Developments

As with the intermediate-term CIP, needed developments were identified for the long-term period, but as with the intermediate-term projects, actual years were not assigned to each project. A full listing of projects needed from 2014 until 2023 is given in **Table 7-4**. This listing includes the relocation of airport maintenance buildings, the Aircraft Rescue and Fire Fighting (ARFF) facility, and Taxiway B to provide the necessary room to further expand Concourse B and the terminal apron. Additional improvements to GA facilities are also planned during this timeframe, as indicated by the project listing in **Table 7-4**. During this long-term period, routine pavement maintenance, smaller equipment purchases, and a Master Plan Update are also planned. These projects are expected to cost approximately \$35.6 million over the ten-year period.

<b>TABLE 7-4 LONG-TERM CIP (2014-2023)</b>	
<b>Development Item</b>	<b>Project Cost</b>
Annual Equipment Purchases (FAA and Non-FAA eligible) – 10 years	\$ 750,000
Annual Pavement Maintenance – 10 years	\$ 200,000
Airport Master Plan Update	\$ 400,000
Relocation of ARFF Facility & Associated Parking	\$ 730,608
Demolition of ARFF Building	\$ 59,365
Reconfiguration of Airport Maintenance Facilities	\$ 710,650
Demolition of Airport Maintenance Buildings	\$ 53,938
Realignment of Taxiway B (with bulkhead wall)	\$ 2,084,272
Air Carrier Ramp Improvements and Expansion	\$ 2,288,534
Expansion of Main Terminal Building	\$ 3,753,486
Build Out of Concourse B (10 gate expansion)	\$ 4,575,198
Additional Jet Loading Bridges (Nine)	\$ 2,700,000
Terminal Area Site 3 – Expansion of Parking Areas	\$ 1,277,021
Taxiway Rehabilitations (Echo, Hotel, and India)	\$ 202,970
Rehabilitate and Expand Main GA Ramp (Approx. 78,960 SY)	\$ 3,213,194
Demolition of Hangar (Life Net hangar)	\$ 68,847
Demolition of Hangar (Aviation Museum)	\$ 92,818
FBO Facility Expansion (Private Development)	\$ 4,029,050
FBO Expansion Parking Improvements	\$ 254,757
Construct Large Conventional Hangars (2 units)	\$ 2,153,300
Parking for Conventional Hangars (2 units)	\$ 189,330
Environmental Assessment for Runway 9-27 Extension	\$ 450,000
Construct Runway 9-27 Phase 2 (1,500 LF extension)	\$ 4,772,230
Relocate REILs and PAPIs for Runway 9-27	\$ 76,250
Rehabilitate Airport Drive	\$ 356,509
Lighting/Electrical Vault Upgrades	\$ 150,000
<b>LONG-TERM TOTAL</b>	<b>\$ 35,592,327</b>

Source: THE LPA GROUP INCORPORATED, 2003.

**CIP Summary**

Having presented the highlights of each of these development periods, a summary of the related financial needs for these projects is presented in **Table 7-5**. This combined development program will provide the facilities needed at LEX to meet the forecasted demands through the end of the 20-year planning period. This 20-year CIP is estimated to cost \$143.5 million. These estimated costs were determined in 2003 dollars; thus, as time goes by these values should be adjusted for the annual inflation rate, which can be accomplished by converting the interim change in the National Consumer Price Index (CPI) into a multiplier ratio as shown by the formula:

$$\text{CPI Multiplier Ratio} = X / \text{CPI}$$

where: X = CPI in any given future year  
 CPI = National CPI in 2003

Multiplying the change ratio times any 2003 based cost or income figure presented in this study will yield the adjusted dollar amounts appropriate in any future year re-evaluation. However, only National CPI data should be used, as local or regional measures may vary. This information is available from the economic research departments of most banks.

<b>TABLE 7-5 20-YEAR CAPITAL IMPROVEMENT PROGRAM</b>	
<b>Development Period</b>	<b>Project Costs</b>
Initial Short-Term	\$ 59,367,099
Remaining Short-Term	\$ 14,982,165
Intermediate-Term	\$ 33,598,492
Long-Term	\$ 35,592,327
<b>Total for 20-Year CIP</b>	<b>\$ 143,540,083</b>

Source: THE LPA GROUP INCORPORATED, 2003.

**FUNDING SOURCES**

To meet the anticipated need of \$143.5 million in improvements, LFUCAB is able to draw from several funding sources in addition to airport operating revenue. Given the high cost of airport infrastructure improvements, the federal government has instituted several funding mechanisms to assist airports in meeting their facility needs. The other major source of funding available to airports is through the public agency operating the airport to undertake debt, through either traditional bank loans or through the issuance of bonds. The availability of funds from these funding mechanisms, as well as others, is presented below.

**Airport Improvement Program**

The Airport Improvement Program (AIP) provides funding for airport planning and development projects at airports included in the National Plan of Integrated Airport Systems (NPIAS). As mentioned previously, Blue Grass Airport is classified in the NPIAS as a primary commercial service airport. This classification defines the funding category set up by Congress within which the airport will be placed and compete for federal funds to assist in airport development. The goal of this funding is to develop and maintain a nationwide system of public-use airports adequate to meet current and projected growth of civil aviation.

The Airport and Airway Trust Fund, originally established by the Airport and Airway Revenue Act of 1970, generates funds through various aviation taxes, including a domestic passenger ticket tax, a passenger flight segment tax, a passenger ticket tax at rural airports, general aviation fuel tax, commercial fuel tax, international flight tax, and frequent flyer taxes, among others and apportions these revenues based on airport type. The current AIP legislation apportions both entitlement funds and discretionary funds. The distribution of entitlement funding at a primary airport, such as LEX, is apportioned based upon the number of enplanements, or passenger boardings, at the airport. The base for the normal disbursement of funds are calculated as follows:

- \$7.80 for each of the first 50,000 passenger boardings;
- \$5.20 for each of the next 50,000 passenger boardings;
- \$2.60 for each of the next 400,000 passenger boardings;
- \$0.65 for each of the next 500,000 passenger boardings; and
- \$0.50 for each passenger boarding in excess of 1 million.

Vision 100 – Century of Flight Authorization Act of 2003, which was signed into law on December 14, 2003, increased AIP funding from \$3.4 billion to \$3.7 billion through fiscal year 2007. Essentially, this legislation continued a doubling of the apportionment funding under a “Special Rule” for primary airports. Therefore, the following revenues per passenger enplanement were used as applicable to project anticipated funding at LEX through 2007.

- \$15.60 for each of the first 50,000 passenger boardings;
- \$10.40 for each of the next 50,000 passenger boardings;
- \$5.20 for each of the next 400,000 passenger boardings;
- \$1.30 for each of the next 500,000 passenger boardings; and
- \$1.00 for each passenger boarding in excess of 1 million.

Additionally, airports with service by all-cargo carriers, which are defined as air carriers that only transport cargo, are awarded cargo entitlements through the AIP program. These funds are given out to airports based upon what percent the airport’s activity is of the national total landed weight of cargo aircraft operations at all eligible airports. At this time, LEX does not have service by all-cargo carriers that would make it eligible for this cargo entitlement funding. Given the proximity to Cincinnati and Louisville, it is not likely that the Airport would experience the start of this service during the planning period. Thus, in projecting AIP funding over the 20-year planning period, only passenger entitlements were assumed. According to AIP program guidance, entitlement determinations are based upon the enplaned passenger levels for the calendar year two years prior to the then current federal fiscal year. For example, calendar year 2002 levels are used to determine AIP entitlements for federal fiscal year 2004. As a measure of conservatism, it was assumed that the AIP would be authorized below the \$3.2 billion minimum threshold required for the “Special Rule” to affect the doubling of AIP entitlements. As a result, the Airport’s AIP entitlements from 2008 through the end of the Long-Term CIP were estimated based on the “normal” disbursement formula set forth above and are presented in **Table 7-6**.

<b>TABLE 7-6 PROJECTED AIP ENTITLEMENT FUNDS</b>		
<b>Fiscal Year</b>	<b>Enplaned Passengers* (Two Years Prior to Fiscal Year)</b>	<b>Projected AIP Entitlements</b>
2004	450,111	\$ 3,120,577
2005	510,013	\$ 3,393,017
2006	525,621	\$ 3,413,307
2007	541,654	\$ 3,434,150
2008	556,906	\$ 1,726,989
2009	571,390	\$ 1,736,404
2010	586,508	\$ 1,746,230
2011	602,233	\$ 1,756,451
2012	618,914	\$ 1,767,294
2013	636,437	\$ 1,778,684
2014	654,765	\$ 1,790,597
2015	674,007	\$ 1,803,105
2016	692,629	\$ 1,815,209
2017	711,693	\$ 1,827,600
2018	731,205	\$ 1,840,283
2019	751,173	\$ 1,853,262
2020	771,603	\$ 1,866,542
2021	792,501	\$ 1,880,126
2022	813,872	\$ 1,894,017
2023	835,724	\$ 1,908,221
<b>20-YEAR TOTAL</b>		<b>\$ 42,352,066</b>

\* Enplaned passengers given for the calendar year two years prior to the fiscal year. For example, for fiscal year 2004, the enplaned passengers are given for the calendar year of 2002.

Source: THE LPA GROUP INCORPORATED, 2004.

In addition to entitlement funds, the FAA also distributes discretionary funding. Discretionary funding is made up of two types: “set-aside” funds and “remaining” funds. The “set-aside” funds are allocated for noise compatibility programs and the military airport program. The “remaining” discretionary funds are used primarily for projects that enhance capacity, safety, security, and noise compatibility programs at primary and reliever airports; however, a portion of these remaining discretionary funds are purely discretionary, which may be used for any eligible project at any airport.

Project eligibility for FAA AIP funding is based on guidelines set forth in FAA Order 5100.38B, which is entitled “The Airport Improvement Handbook.” Generally, all airport improvement and development projects qualify for funding except for those facilities that generate revenues or those projects associated with revenue-producing facilities. Under most circumstances, projects at small and non-hub airports that qualify for AIP funding (except terminal development) are eligible for up to 90 percent of total project costs. The latest AIP authorizing legislation, Vision 100, raised the eligibility cap to 95 percent for airports classified as “small hub” or smaller through federal fiscal year 2007. **Table 7-7** breaks out the anticipated project needs throughout the 20-year

planning period as well as the anticipated amount of funding from AIP entitlement and discretionary grants. In determining the eligible project costs, FAA eligibility rules were observed as well as a 90 percent federal share for all AIP projects so that a worst-case scenario could be considered. This table also shows the remaining project costs after all projected federal funding is subtracted from the development costs for each phase. Projected entitlement and discretionary AIP funding for the initial short-term period reflects the determinations in the 2003 Bond report and not the projections completed as a part of this analysis.

Phase	Project Costs	AIP			Airport Share of Project Costs /1
		Total Federal Share of Eligible Costs	Projected Entitlement Funds	Projected Discretionary Funds /1	
Initial Short-term (2004-2006) /2	\$ 59,367,099	\$ 44,827,500	\$ 14,670,000	\$ 15,429,292	\$ 29,267,807
Remaining Short-term (2007-2008)	\$ 14,982,165	\$ 10,244,116	\$ 5,161,139	\$ 5,082,977	\$ 4,738,049
Intermediate-term (2009-2013)	\$ 33,598,492	\$ 19,165,879	\$ 8,785,063	\$ 10,380,815	\$ 14,432,613
Long-term (2014-2023)	\$ 35,592,327	\$ 22,912,869	\$ 18,478,962	\$ 4,433,907	\$ 12,679,459
<b>Total 20-Year Period</b>	<b>\$ 143,540,083</b>	<b>\$ 97,150,363</b>	<b>\$ 47,095,164</b>	<b>\$ 35,326,991</b>	<b>\$ 61,117,928</b>

/1 This assumes that discretionary funding is awarded to cover all AIP eligible costs.

/2 2003 Bond Report, Newton & Associates, 2003.

Source: THE LPA GROUP INCORPORATED, 2004.

### Passenger Facility Charges

The Aviation Safety and Capacity Expansion Act of 1990 and Part 158 of the Federal Aviation Regulations sets forth the guidelines of the Passenger Facility Charge (PFC) Program, which authorizes commercial service airports to collect a PFC, which at that time was capped at \$3.00 per revenue enplanement. PFCs are revenues generated from a charge imposed on enplaning revenue passengers, who have paid for their ticket instead of redeeming various flight vouchers or frequent flier points. These PFC funds are then used to finance capital improvements that have been identified by LFUCAB and approved by the FAA prior to PFC implementation. Current legislation allows up to a \$4.50 PFC to be imposed on revenue passengers enplaning at an airport. The airline collecting the PFC is allowed to keep a handling fee to cover their program administration costs. This rate had initially been set at \$0.08 per PFC collected; however, effective May 1, 2004, the airline handling fee was raised to \$0.11 per PFC collected by the airline.

For the PFC projections in this study, calculations estimate revenue passengers equal to 95 percent of the Airport's historical or projected enplanements as well as assuming a \$0.12 airline handling fee per revenue passenger. Taking a somewhat conservative approach, a one-cent increase was added to the airline-handling fee used in this analysis to account for the unknown variable of refunded tickets. The anticipated levels of PFC revenues have been projected for LEX over the 20-year planning period and are shown in **Table 7-8**. These funds can be used to pay the annual debt service related to PFC eligible projects when approved by the FAA. In July 2003, the FAA issued a Record of Decision approving LFUCAB's PFC Application to impose over \$53 million in PFCs. In its PFC Application, LFUCAB anticipates collecting PFCs at the \$4.50 level through 2025. The PFC Application utilized a different aviation activity forecast as its basis for projections; thus, the projected PFC collections shown in **Table 7-8** exceed the currently approved PFC collection level and show a slightly faster collection rate. Estimated PFC collections beyond this amount are included to illustrate the potential PFC funding available to LFUCAB.

**TABLE 7-8  
PROJECTED PFC COLLECTIONS**

<b>Fiscal Year</b>	<b>Projected Enplanements/1</b>	<b>95% of Enplanements/2</b>	<b>PFC Collected</b>
2004	525,621	499,340	\$ 1,822,591
2005	541,654	514,571	\$ 2,253,822
2006	556,906	529,061	\$ 2,317,286
2007	571,390	542,821	\$ 2,377,554
2008	586,508	557,183	\$ 2,440,460
2009	602,233	572,121	\$ 2,505,892
2010	618,914	587,968	\$ 2,575,301
2011	636,437	604,615	\$ 2,648,214
2012	654,765	622,027	\$ 2,724,477
2013	674,007	640,307	\$ 2,804,543
2014	692,629	657,998	\$ 2,882,029
2015	711,693	676,108	\$ 2,961,355
2016	731,205	694,645	\$ 3,042,544
2017	751,173	713,614	\$ 3,125,631
2018	771,603	733,023	\$ 3,210,640
2019	792,501	752,876	\$ 3,297,597
2020	813,872	773,178	\$ 3,386,521
2021	835,724	793,938	\$ 3,477,448
2022	858,061	815,158	\$ 3,570,392
2023	880,889	836,845	\$ 3,665,379
<b>20-Year Totals</b>	<b>13,807,785</b>	<b>13,117,396</b>	<b>\$ 57,089,675</b>

/1 Enplanements are shown for the calendar year in which the fiscal year begins; therefore, calendar year enplanements for 2003 are shown for fiscal year 2003.

/2 This reflects a PFC collection ratio of 95%.

Source: THE LPA GROUP INCORPORATED, 2004

### Rental Car Contract Facility Charges (CFCs)

Another specialized user fee at many airports is the contract facility charge (CFC) collected by rental car agencies to cover capital improvements of rental car facilities at airport at which they operate. At LEX, a CFC was implemented in 2002 to begin collecting funds to cover the construction of a dedicated ready/return parking garage and to make improvements to surface storage areas. At the time of initiation, the CFC was set at \$2.00 per contract day; however, starting in 2007, when debt service payments begin, the annual collection rate will be set based upon the CFC Requirement. This requirement is equal to the total amount needed to recover the debt service, annual operating and maintenance expenses, and land lease payments associated with the rental car facilities. **Table 7-9** provides a projection of these annual collection rates. The actual number of rental car contract days generated during any fiscal year is expected to be commensurate with passenger deplanement activity (assuming that deplanement activity generally mirrors enplanement activity). Based on prior collection rates, the 2003 Bond Feasibility Report estimated the number of contract days to approximate 50 percent of annual passenger forecasts. The projected enplanements represent the forecast for LFUCAB's fiscal year, which runs from July 1 through June 30 of the following calendar year.

**TABLE 7-9  
PROJECTED CFC COLLECTIONS**

Fiscal Year	Projected Deplanements/1	# of Contract Days	Rental Car Debt Service /2	Annual O&M - Land Lease /3	Total CFCs Required /4	Estimated Annual CFC Collection Rate
2004	525,621	262,810	\$ 308,393	\$ 84,047	\$ 392,440	\$ 1.49
2005	541,654	270,827	\$ 509,727	\$ 84,047	\$ 593,774	\$ 2.19
2006	556,906	278,453	\$ 509,727	\$ 84,047	\$ 593,774	\$ 2.13
2007	571,390	285,695	\$ 589,438	\$ 84,047	\$ 673,485	\$ 2.36
2008	586,508	293,254	\$ 566,269	\$ 84,047	\$ 650,316	\$ 2.22
2009	602,233	301,116	\$ 581,139	\$ 84,047	\$ 665,186	\$ 2.21
2010	618,914	309,457	\$ 583,818	\$ 84,047	\$ 667,865	\$ 2.16
2011	636,437	318,219	\$ 594,910	\$ 84,047	\$ 678,957	\$ 2.13
2012	654,765	327,382	\$ 571,045	\$ 84,047	\$ 655,092	\$ 2.00
2013	674,007	337,003	\$ 564,180	\$ 84,047	\$ 648,227	\$ 1.92
2014	692,629	346,314	\$ 597,919	\$ 84,047	\$ 681,966	\$ 1.97
2015	711,693	355,846	\$ 574,297	\$ 84,047	\$ 658,344	\$ 1.85
2016	731,205	365,603	\$ 578,935	\$ 84,047	\$ 662,982	\$ 1.81
2017	751,173	375,587	\$ 556,424	\$ 84,047	\$ 640,471	\$ 1.71
2018	771,603	385,802	\$ 584,049	\$ 84,047	\$ 668,096	\$ 1.73
2019	792,501	396,250	\$ 561,452	\$ 84,047	\$ 645,499	\$ 1.63
2020	813,872	406,936	\$ 574,583	\$ 84,047	\$ 658,630	\$ 1.62
2021	835,724	417,862	\$ 568,113	\$ 84,047	\$ 652,160	\$ 1.56
2022	858,061	429,030	\$ 572,140	\$ 84,047	\$ 656,187	\$ 1.53
2023	880,889	440,444	\$ 585,270	\$ 84,047	\$ 669,317	\$ 1.52
<b>20-Year Totals</b>	<b>13,807,785</b>	<b>6,903,892</b>	<b>\$ 11,131,829</b>	<b>\$ 1,680,940</b>	<b>\$ 12,812,769</b>	<b>\$ 1.89 /5</b>

/1 Deplanements estimated to equal the forecasted enplanements.

/2 Equals the projected annual debt service for CFC eligible projects only.

/3 Estimated based upon Table II-4 from the 2003 Bond report.

/4 Equals the estimated annual CFC collections.

/5 Average annual CFC collection rate.

Sources: "Report of the Airport Consultant", 2003 Bond Series, Newton & Associates, 2003; THE LPA GROUP INCORPORATED, 2004.

## Other Funding Options

As shown in **Table 7-7**, LFUCAB needs approximately \$32 million to cover capital developments from 2007 through the end of the planning period, with over half of that amount (about \$19 million) being needed within 10 years. Given LFUCAB's existing debt burden, it is prudent for LFUCAB to continue to seek other sources of funding in order to provide the necessary facilities in a timely manner. Other potential sources of funds, other than undertaking a greater debt burden amount, include non-conventional federal, state, and local government programs as well as private capital investments, some of which are identified below:

- **State Agencies:** The Kentucky Division of Aeronautics provides for state aid for airport development projects under 602 KAR 15:020. This legislation sets forth the eligibility requirements and process through which an airport must follow in order to receive state funding. A publicly owned, public-use airport can apply for airport development and maintenance projects; however, state assistance for maintenance projects is only given to airports that do not have scheduled commercial service. State funding for airport development projects are approved

and distributed to projects that comply with FAA safety standards, that are consistent with the airport type and degree of facility development contained in the airport state system, and that are in accordance with the airport's approved master plan update. LEX has not received in the recent past any funding from this state aviation fund. Other potential state funding could be through economic development grants or tourism initiatives.

- **Local Agencies:** The Convention and Visitor's Bureau and Hotel and Restaurant Association of Lexington have both placed Blue Grass Airport at the top of their respective lists for future projects in Fayette County. This would indicate that there is a significant potential for the Airport to secure additional funding and/or grants from these organizations, which could be further applied towards capital improvement projects such as the renovation and ultimate expansion of the passenger terminal facilities.
- **Private Sources:** This group of potential funds could include private businesses as well as non-profit grant agencies. While private funding may not be available to make terminal or airfield improvements, private funds might be possible to cover some development costs associated with larger corporate hangars, the development of the scenic corridor, or the airport observation park. Funding in this category is likely to be limited, but LFUCAB should seek to identify potential funding sources.

## FINANCIAL FEASIBILITY ASSESSMENT

The above discussion has focused on the needed developments at LEX over the 20-year planning period. Several sources of funding have been identified; however, LFUCAB will still need significant funds to cover the development costs discussed above. This financial feasibility assessment focuses on the initial 10 years of the planning period. The purpose of this assessment was to generally assess LFUCAB's ability to fund the previously discussed CIP through 2012. This assessment assumes that the maximum discretionary AIP funds are received for those projects meeting FAA AIP eligibility requirements, except as noted above for the initial short-term period. Therefore, LFUCAB would only be responsible for those amounts related to the local share match for AIP projects and for non-AIP eligible project costs. The "Report of the Airport Consultant" (hereinafter referred to as the "Bond Report"), prepared by Newton & Associates, Inc. which was completed in conjunction with LFUCAB's issuance of the 2003 Bonds, was used in the preparation of this generalized feasibility assessment.

### Cash Flow Analysis

The first step in this financial assessment was to compile information related to historical income and expenditures at LEX. Using this data as a starting point, future revenue and expenditures were then estimated thru 2013. The data reflects LFUCAB's fiscal year, which runs from July 1 of the prior year to June 30 of the fiscal year. The starting values for 2004 were taken from the Bond Report, wherein the 2004 values were based upon the budget adopted by LFUCAB. Descriptions of each line item as well as the assumptions that were made regarding each line item's future growth are discussed below.

#### *Airline Fees*

Unlike many airports that still have 30-year signatory airline leases, LEX has month-to-month operating agreements with each airline. This arrangement began with fiscal year 2001 at which point LFUCAB began setting annual airline fees by the adoption of a resolution. The annual fees are compensatory in nature, requiring reconciliation of the collected charges to the actual costs at the end of each fiscal year.

Any amount over or under the actual costs is used to adjust the fee for the next fiscal year. The fees are to set to cover the annual operating and maintenance expenditures as well as some capital expenditures.

The various airlines at LEX pay three types of fees. The first is terminal rent for the exclusive, preferential, and common use areas each airline uses for office space, baggage handling, ticket counters, and gate areas. The second fee is based upon each operation the airline conducts. This fee, referred to as a "Landing Fee" in **Table 7-10**, is a set fee per 1,000 pounds of the aircraft's maximum gross landing weight. The third type of fee paid by each airline is a security reimbursement fee. Over the last five years, airline fees have made up approximately 30 to 40 percent of all revenue paid to LFUCAB.

In projecting future fees through 2013, increases in airline fees were assumed to increase commensurate with rising operating and maintenance expenditures. As previously discussed, the debt service on the 2003 Bonds will be paid for with a combination of PFCs, CFCs, and non-airline user fees and therefore would not be included in the airline rate base. However, the allocable share of future capital expenditures could be included in the airline rate base if LFUCAB elected to do so and said fees are justifiable. Notwithstanding, the importance of maintaining competitive airline fees, LFUCAB should evaluate the impact of including such costs in the airline rate base.

The projections of airline fees given in **Table 7-10** assume an annual average growth rate of 7 percent, which equals the historical growth rate of the operating and maintenance expenses over the last five years. Due to the generalized nature of this assessment, no additional increases in charges were made for airfield and terminal projects expected to be completed during this 10-year timeframe. Thus, airline fees given in this report should be considered conservative projections, because as many of these projects are completed, LFUCAB should be able to include an amortized portion of the development cost.

### ***Rents and Commissions***

There are a variety of other businesses located at LEX that also pay rents based upon either building or land area occupied, or commissions based upon the amount of gross revenue the company collects. Key items under this heading include general aviation, rental car, public parking, and terminal concessions.

General aviation revenue is collected from the fixed base operator (FBO) for land and building rents as well as commissions on sales of FBO services to aircraft owners. Additionally, this line item includes rents on existing hangars. These fees have grown at an average rate of 2.78 percent; the projections assume this rate of growth will continue. Since the Initial Short-Term CIP includes a project to construct 16 additional aircraft hangars by the end of 2006, annual rent should be collected starting in 2007 and is assumed to equal the estimated debt service and associated operating and maintenance costs related to its development.

**TABLE 7-10  
CASH FLOW ANALYSIS THROUGH 2013**

	Historical Period /1								
	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Revenue</b>									
<b>Airline Fees</b>									
Terminal Area Rents	\$ 1,674,404	\$ 1,425,769	\$ 1,821,294	\$ 1,805,379	\$ 1,620,587	\$ 1,847,404	\$ 1,976,722	\$ 2,115,093	\$ 2,263,149
Landing Fees	\$ 1,745,227	\$ 1,825,360	\$ 1,863,328	\$ 2,205,765	\$ 1,906,484	\$ 1,932,241	\$ 2,067,498	\$ 2,212,223	\$ 2,367,078
Security Charges	\$ 460,562	\$ 436,595	\$ 466,380	\$ 503,239	\$ 471,624	\$ 470,014	\$ 502,915	\$ 538,119	\$ 575,787
<b>Rents &amp; Commissions</b>									
TSA Office Rent	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 146,146	\$ 146,146	\$ 146,146	\$ 146,146
Airline Maintenance	\$ 10,500	\$ 10,500	\$ 10,500	\$ 10,500	\$ 10,500	\$ 10,500	\$ 10,500	\$ 10,500	\$ 10,500
General Aviation	\$ 381,571	\$ 393,289	\$ 456,729	\$ 461,783	\$ 425,820	\$ 437,658	\$ 449,825	\$ 462,330	\$ 475,183
New GA Hangars-2007	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 59,048
Air Freight	\$ 68,478	\$ 68,479	\$ 68,479	\$ 68,479	\$ 59,259	\$ 66,635	\$ 66,635	\$ 66,635	\$ 66,635
Rental Car Commissions	\$ 1,392,274	\$ 1,443,250	\$ 1,544,902	\$ 1,403,345	\$ 1,657,571	\$ 1,704,006	\$ 1,751,743	\$ 1,800,816	\$ 1,851,264
Public Parking	\$ 1,750,978	\$ 2,794,924	\$ 2,892,193	\$ 2,533,435	\$ 3,336,822	\$ 3,430,300	\$ 3,526,397	\$ 3,625,186	\$ 3,726,742
Concessions	\$ 387,188	\$ 378,481	\$ 389,549	\$ 333,729	\$ 563,709	\$ 579,501	\$ 595,735	\$ 612,424	\$ 629,580
Executive Lounge Membership Dues	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 36,579
ARFF Training Facility Revenues	\$ 0	\$ 52,457	\$ 46,490	\$ 29,643	\$ 51,385	\$ 36,000	\$ 36,000	\$ 36,000	\$ 36,000
<b>Urban County Government Appropriations</b>									
Interest Income	\$ 85,273	\$ 111,700	\$ 138,199	\$ 92824	\$ 6,754	\$ 87,000	\$ 87,000	\$ 87,000	\$ 87,000
Passenger Facility Charges	\$ 1,557,097	\$ 1,316,635	\$ 1,353,010	\$ 1,825,045	\$ 2,059,019	\$ 1,822,591	\$ 2,253,822	\$ 2,317,286	\$ 2,377,554
Contract Facility Charges	\$ 0	\$ 0	\$ 0	\$ 0	\$ 445,741	\$ 392,440	\$ 593,774	\$ 593,774	\$ 673,485
<b>Total Revenue</b>	<b>\$ 9,681,948</b>	<b>\$ 10,425,835</b>	<b>\$ 11,219,449</b>	<b>\$ 11,423,466</b>	<b>\$ 12,718,425</b>	<b>\$ 12,962,436</b>	<b>\$ 14,064,711</b>	<b>\$ 14,623,531</b>	<b>\$ 15,381,732</b>
<b>Expenditures</b>									
<b>Operating &amp; Maintenance Expenses</b>	\$ 5,708,303	\$ 5,949,231	\$ 6,304,724	\$ 6,841,755	\$ 7,461,997	\$ 6,992,530	\$ 7,482,007	\$ 8,005,748	\$ 8,566,150
<b>Capital Expenses</b>									
Direct Capital Purchases	\$ 104,575	\$ 42,495	\$ 52,674	\$ 92,195	\$ 52,615	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000
Local Construction - Current	\$ 242,893	\$ 453,693	\$ 174,030	\$ 170,317	\$ 373,881	\$ 285,000	\$ 285,000	\$ 285,000	\$ 285,000
Bank Note (Due May 2008)	\$ 527,531	\$ 491,808	\$ 550,320	\$ 463,839	\$ 139,609	\$ 119,240	\$ 130,080	\$ 130,080	\$ 130,080
Debt Service - 1994 A Bonds	\$ 519,200	\$ 1,007,341	\$ 586,806	\$ 330,383	\$ 195,342	\$ 97,671	\$ 0	\$ 0	\$ 0
Debt Service - 1994 B Bonds	\$ 145,717	\$ 184,140	\$ 181,274	\$ 149,264	\$ 114,457	\$ 280,000	\$ 272,500	\$ 265,000	\$ 257,500
Debt Service - 1998 A Bonds	\$ 5,338	\$ 405,802	\$ 489,066	\$ 315,488	\$ 367,288	\$ 987,500	\$ 972,500	\$ 957,500	\$ 942,500
Debt Service - 1998 B Bonds	\$ 138,574	\$ 230,162	\$ 331,213	\$ 160,720	\$ 134,807	\$ 310,000	\$ 300,000	\$ 290,000	\$ 280,000
Debt Service - 1998 C Bonds	\$ 758,105	\$ 327,961	\$ 774,984	\$ 416,228	\$ 336,003	\$ 797,500	\$ 867,500	\$ 837,500	\$ 800,000
Debt Service - 2003 A Bonds-PFC	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1,052,663	\$ 1,741,199	\$ 1,741,199	\$ 2,112,842
Debt Service - 2003 A Bonds-Non-PFC	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 102,302	\$ 169,218	\$ 169,218	\$ 205,335
Debt Service - 2003 B Bonds	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 282,362	\$ 466,669	\$ 466,669	\$ 537,190
Transfer of Excess PFC's to Reserve Account	\$ 1,037,897	\$ 309,294	\$ 766,204	\$ 1,494,662	\$ 1,863,677	\$ 711,928	\$ 504,383	\$ 567,599	\$ 255,970

Each rental car agency operating at LEX pays a commission to LFUCAB that is determined to be a set percentage of their annual gross revenue. Other rental car fees include rents on office space, service counters, ready/return parking, and vehicle service areas. Over the historical period, this revenue stream has grown at an average rate of 4.4 percent annually. Since the annual level of car rentals correlates directly with passenger levels, they are projected to grow at the same rate as passengers, which have been forecast in this Master Plan Update at an annual rate of 2.8 percent over the 10-year period of 2004 through 2013. By 2013, rental car fees should be approximately \$2.1 million.

Next to airline fees, revenue generated from public parking is the next largest income source at LEX and has grown at an average annual rate of approximately 17 percent since 1999. In 1999, parking revenue was \$1.75 million and accounted for 21.9 percent of overall revenue. This revenue source had grown to \$3.3 million, accounting for nearly 30 percent of total revenue in 2003. Much of this increase was related to parking rate increases that were implemented over the historical period to cover debt service on bonds issued in 1998 to finance the public parking garage construction. The determination of appropriate parking fees takes into account a variety of factors, including the amount needed to cover this debt service and to fund a portion of the operating and maintenance expenditures. There is assumed to be no increase in parking rates charged to users through fiscal year 2013; therefore, any increase in parking revenue is based on the increase in airline passengers. Thus, parking revenue has been projected to increase at an average annual growth rate of 2.8 percent.

LFUCAB also receives a percent of the gross receipts on the retail and food service businesses located in the terminal. Most of the agreements with these businesses have a minimum guaranteed amount to be paid to LFUCAB, either monthly or yearly. Since 1999, this revenue has grown from \$387,188 to \$563,709 in 2003, representing an average annual growth of 9.9 percent over that time. This revenue type is directly tied to the number of passengers using the facility; as such, future projected concessions revenue was determined based upon the passenger growth rate (2.8 percent) for the period.

### ***Urban County Appropriations***

Over the historic five-year period, LFUCAB has received annual funding from the Urban County Government as payment for LFUCAB operating LEX. The agreement setting up these annual payments was terminated in fiscal year 2003. The ending of this agreement was necessitated by County budget constraints; therefore, it is not likely that this agreement would be reentered into anytime during the next 10 years.

### ***Interest Income***

As much as fiscally possible, LFUCAB seeks to earn interest income on its reserve funds. The amount varies annually as can be seen from a review of the historical period. The high amount during this five-year period was \$138,199 earned in fiscal year 2001. The low amount for the same period occurred in fiscal year 2003 when only \$6,745 was collected. Future interest income earnings were estimated based on an average annual interest income collected through the historical period, which was determined to be \$87,000 per year.

### ***Passenger Facility Charges and Contract Facility Charges***

Both PFCs and CFCs have been discussed previously. The future projections shown in **Table 7-10** assume that both items will grow at a rate similar to that of passenger enplanements. Both of these income streams have been dedicated to pay for debt service of eligible items in the 2003 Bonds.

### *Operating & Maintenance Expenses*

Operating and maintenance (O&M) expenses relate to the general day-to-day operational costs and the necessary general maintenance that has to be completed to keep airport facilities in good operating order. For budget purposes, these expenses are spread among the six operating departments of the Airport. These departments include administration, airport services, engineering, janitorial/maintenance, operations and public safety. Over the historical period, these expenses have increased at an annual rate of approximately 7 percent. Future projections began with the 2004 budgeted operating and maintenance expense amount. As shown in **Table 7-10**, the budgeted amount in 2004 is approximately seven percent lower than the operating and maintenance expenses incurred in 2002. This decrease was necessitated to curtail rising airline and other user fees. Beyond 2004, these costs were assumed to grow at the historic rate.

### *Capital Expenses*

The other major category of annual expenditures relates to the development and purchase of capital items. At LEX, these costs are related to major facility improvements to existing structures or to the construction of new buildings as well as the purchase of higher priced equipment, such as snow equipment or fire trucks. The listing under “Capital Expenses” in **Table 7-10** includes three types of line items: direct purchases, debt service, and transfers to reserve accounts.

Line items from the cash flow table include “Capital Purchases” and “Local Construction”. These two classifications are used to pay for the local share on AIP projects and for smaller capital items, such as maintenance or office equipment. Over the historical period, these classifications have varied from approximately \$225,000 in 2001 to a high of \$425,000 in 2003. The average annual growth rate between 1999 and 2003 is 5.2 percent when these two expenses are considered together. Future projections for these expenditure line items were based on an average value for the historical period, which was \$68,911 for capital purchases and \$282,963 for local construction.

Debt service makes up the largest annual capital expense incurred by LFUCAB. Currently, two types of debt are in repayment: bank notes and airport revenue bonds. The current outstanding airport bonds are on equal parity with each other for repayment with general airport revenues. Additionally, PFC and CFC funds will be used to pay a portion of the debt service related to certain eligible capital projects. Historical debt service payments, excluding the bank note, have been approximately \$1.6 million per year. Future debt service payments for these line items have been taken from the 2003 Bonds Report, which lists the estimated annual payments based on the outstanding principal and the maximum interest rate for each bond series through 2009. Projections from 2010 through 2013 were extrapolated at the same annual growth rate. These projections assume the maximum interest rate to assess the worst-case scenario; however, LFUCAB’s outstanding bonds have interest rates considerably lower than the maximum interest rate over the historical period. The following listing provides some details regarding each of these line items:

- **Bank Note:** This loan was used to cover the costs of bonds that were issued in the late 1980s. The annual rate is set at 5.5 percent and the final payment is due in May 2008. The future annual payments were taken from the fiscal year 2003 Audit included in the 2003 Bonds Report.
- **Series 1994 Bonds:** Funds from this bond issuance funded, in part, covered certain costs associated with airfield improvements and the refinancing of bank notes. The Series A bonds were retired in December 2003. Estimated future annual payment amounts for the

1994 B Series should range from a high of \$280,000 in 2004 to approximately \$212,000 in 2013.

- **Series 1998 Bonds:** LFUCAB funded, in part, the public parking garage project and some terminal improvements with the proceeds from this bond issuance. Additionally, LFUCAB took advantage of lower interest rates and refinanced the then outstanding principal of certain bonds then outstanding. Future annual debt service on these bonds is estimated to decrease from approximately \$2.1 million in fiscal year 2005 to \$1.6 million over the next ten years.
- **Series 2003 Bonds:** This bond issuance funded, in part the projects listed in **Table 7-1**. The principal amount for these bonds was \$29,050,000. Eligible development costs and the associated debt service related to airfield and terminal improvements are authorized by the FAA to be repaid with PFC funds. Additionally, LFUCAB plans to repay costs related to the rental car improvements with the CFC collections. Future debt service estimations, as compiled from the 2003 Bonds Report, reach a high amount of almost \$2.9 million in 2007.

As previously noted, PFC and CFC funds are collected to cover specific capital expenditures only. When collected funds exceed the annual expenditures for these two special revenue streams, the excess funds for the year are held in a reserve account to pay for any future shortfalls. An additional use of these surplus funds is to make advance payments on the associated debt service. Over the historical period, surplus PFC collections have averaged approximately \$1 million per year. CFC collections did not begin until fiscal year 2003 during which an excess \$445,741 was collected over the 2003 annual expenses. Given the formula for determining the annual CFC collection rate, no further surplus collections of these funds should occur over the forecast period. For the forecast period, the PFC amount held in reserve was determined by subtracting the estimated authorized PFC expenses from the forecast collection amounts.

### Additional Debt Service Assessment

Over the last 10 years, LFUCAB has undertaken an aggressive capital development program, involving the issuance of bonds three times since 1994. This has yielded an average annual debt service load through 2013 of approximately \$4.78 million. LFUCAB has a need for additional funding, summarized in **Table 7-7**, as early as 2007 in order to carry out the CIP as shown in **Tables 7-2, 7-3, and 7-4**. For the period of 2007 through 2013, capital development funding of approximately \$19 million would be required, assuming that LFUCAB receives the projected amounts of both entitlement and discretionary AIP funding.

One possible source of this funding would be the proceeds of additional general obligation, airport revenue bonds, bank notes, or line of credit. One common measure of an issuer's ability to cover existing and additional debt service payments is the ratio of "Net Revenue" to the debt service amount, known as the "Debt Service Coverage Ratio". For this assessment, the projected surplus PFC funds (see "Transfer of Excess PFCS to Reserve Funds" in **Table 7-10**) were subtracted from the Net Revenue given in **Table 7-10** to determine the "Adjusted Net Revenue". This adjustment was necessary because PFC funds are restricted as to their use; thus, they should not be assumed to cover future expenditures of any kind.

In order to assess the feasibility of LFUCAB to undertake further liabilities, a theoretical debt service amount was determined based upon a debt coverage ratio of 1.25 and would provide 25 percent more revenue than would be required to cover the projected annual debt service. This debt service coverage factor is commonly used within the financial community as a reasonable measure to provide protection to bond investors and to provide a financial cushion to the Airport from fluctuations in economic conditions. The annual debt coverage ratios for

LEX range from 1.24 to a high of 1.32, as presented in **Table 7-11**. These values demonstrate LFUCAB's financial ability to cover existing debt requirements as well as to cover unexpected expenses or fund its reserve accounts.

<b>Year</b>	<b>Adjusted Net Revenue</b>	<b>Existing Debt Service</b>	<b>Debt Service Coverage Ratio</b>	<b>Theoretical Debt Service /1</b>	<b>Additional Debt Service Ability</b>
2004	\$ 5,257,978	\$ 3,909,998	1.34	\$ 4,206,382	\$ 296,384
2005	\$ 6,078,321	\$ 4,789,586	1.27	\$ 4,862,657	\$ 73,071
2006	\$ 6,050,184	\$ 4,727,086	1.28	\$ 4,840,148	\$ 113,062
2007	\$ 6,559,611	\$ 5,135,367	1.28	\$ 5,247,689	\$ 112,322
2008	\$ 6,467,836	\$ 5,019,924	1.29	\$ 5,174,269	\$ 154,345
2009	\$ 6,530,841	\$ 4,984,680	1.31	\$ 5,224,673	\$ 239,993
2010	\$ 6,546,237	\$ 4,895,734	1.34	\$ 5,236,990	\$ 341,256
2011	\$ 6,604,653	\$ 4,847,734	1.36	\$ 5,283,722	\$ 435,988
2012	\$ 6,604,600	\$ 4,733,753	1.40	\$ 5,283,680	\$ 549,927
2013	\$ 6,659,529	\$ 4,670,266	1.43	\$ 5,327,623	\$ 657,357

<sup>/1</sup> Theoretical debt service level determined by assuming a debt coverage ratio of 1.25.  
Source: THE LPA GROUP INCORPORATED, 2004.

From the information in **Table 7-11**, it can be assumed that LFUCAB would not be able to issue more bonds until around 2011. This "Additional Debt Ability" falls short of the projected debt service on the approximately \$19 million principal needed by LFUCAB over the next 10 years. As such, other funding must be identified and obtained in order for LFUCAB to provide the needed developments in this timeframe. If this additional funding does not materialize, some of the proposed CIP projects would likely be delayed until such funding is available. As projects become more imminent, additional financial analyses should be undertaken to reassess LFUCAB's bonding capacity.

### Rates and Charges Impacts

As a part of this financial feasibility assessment, LFUCAB's ability to spread some of the future capital expenses to airlines operating at the Airport was reviewed. As noted in the discussion above, no capital expenses have been included in the forecasted airline fees shown in **Table 7-10**. Airlines routinely use the "Cost per Enplaned Passenger (CPEP)" to determine if the fees they are paying at a specific airport are competitive with similarly sized markets. Airport cost is one of many factors an airline considers in its evaluation of whether to serve a given market. As such, LFUCAB should continue its prudent financial management in order to keep airline charges and the CPEP within competitive limits. **Table 7-12** presents the historical data for the last five years as well as the forecasted CPEP for the next 10 years. Historical data shows the impacts of the 2001 terrorist attacks, particularly in 2002, when the Airport experienced a significant drop in enplaned passenger activity. Given the projected annual increase of O&M expenses, the CPEP is forecast to increase to \$12.51 by fiscal year 2013. Currently, that CPEP would be considered relatively unreasonable for airports of similar passenger levels as LEX. This future value discounted at 3.0 percent would be \$8.68. Therefore, it is unlikely that LFUCAB would be able to include a portion of future capital expenditures related to this CIP in its annual airline rate determination.

**TABLE 7-12  
CIP IMPACTS ON AIRLINE CHARGES**

<b>Fiscal Year</b>	<b>EPAX</b>	<b>Airline Charges</b>	<b>CPEP</b>	<b>Net Present Value of CPEP /2</b>
<b>Historical Period /1</b>				
1999	537,817	\$ 3,880,193	\$ 7.21	Not Applicable
2000	509,543	\$ 3,687,724	\$ 7.24	Not Applicable
2001	594,281	\$ 4,151,002	\$ 6.98	Not Applicable
2002	426,143	\$ 4,514,383	\$ 10.59	Not Applicable
2003	537,948	\$ 3,998,695	\$ 7.43	Not Applicable
<b>Forecast Period</b>				
2004	525,621	\$ 4,249,659	\$ 8.09	\$ 7.85
2005	541,654	\$ 4,547,135	\$ 8.39	\$ 7.91
2006	556,906	\$ 4,865,435	\$ 8.74	\$ 8.00
2007	571,390	\$ 5,206,015	\$ 9.11	\$ 8.09
2008	586,508	\$ 5,570,436	\$ 9.50	\$ 8.19
2009	602,233	\$ 6,049,014	\$ 10.04	\$ 8.41
2010	618,914	\$ 6,570,400	\$ 10.62	\$ 8.64
2011	636,437	\$ 7,138,568	\$ 11.22	\$ 8.86
2012	654,765	\$ 7,757,873	\$ 11.85	\$ 9.08
2013	674,007	\$ 8,433,088	\$ 12.51	\$ 9.31

/1 Taken from 2003 Bond Report.

/2 Assumes a 3 percent discount rate.

Sources: "Report of the Airport Consultant", 2003 Bond Report, Newton & Associates, 2003; THE LPA GROUP INCORPORATED, 2004.

## CONCLUSION

LEX is a significant economic catalyst for Lexington and surrounding areas and provides essential aviation service to meet community demand; therefore, it is important that LFUCAB be able to undertake the CIP discussed herein so that it can continue to provide these necessary services to the Lexington community. Based on the general financial assessment presented in this section, LFUCAB will need to maximize all potential outside funding sources in order to undertake the identified projects through 2013. As discussed earlier, the actual implementation schedule for the capital projects identified in the CIP may need to be adjusted according to development triggers and the actual demand experienced. As LFUCAB seeks to move forward with these developments, more detailed financial analyses will be required to take into account the actual financial situation of the Airport at that time. The actual funding for specific projects will be determined as implementation becomes more imminent, and will depend on the Airport's development schedule, its financial health, and the overall local economic conditions.