

Implementation Program and Phasing

Introduction

The improvements necessary to efficiently accommodate the forecast aviation demands for King County International Airport have been placed into three phases: phase one (0-5 years), phase two (5-10 years), and phase three (10-15 years). The proposed improvements are illustrated graphically by time period on the *PHASING PLAN* (see Figure F1), along with the project cost estimates that are presented on the following pages.

Project List

A list of capital improvement projects has been assembled from the facility requirements documentation previously presented. The project list has been coordinated with the Airport Layout Plan drawing set and the Capital Improvement Program that is continuously updated by airport management and the Federal Aviation Administration.

Cost Estimates

Cost estimates for individual projects based on current dollars have been prepared for improvements which have been identified as necessary during the 20-year planning period. Facility costs have been formulated using unit prices extended by the size of the particular facility and tempered with specific considerations related to Seattle, the airport, and the development site. That being said, these estimates are intended to be used for planning purposes only and should not be construed as detailed construction cost estimates, which can only be compiled following the preparation of detailed design documentation.

Phasing Plan

The following illustration, entitled *PHASING PLAN*, along with the project/cost estimate list (Tables F1, F2, and F3) indicates the suggested phasing for improvement projects throughout the 20-year planning period. These are suggested schedules and variance from them may be necessary, especially during the latter time periods. Special attention has been given to the first five years because the projects outlined in this time frame include many critical improvements. The demand for certain facilities, especially in the latter time frame, and the economic feasibility of their development are to be the prime factors influencing the timing of individual project construction. Care must be taken to provide for adequate lead-time for detailed planning and construction of facilities in order to meet aviation demands. It is also important to minimize the disruptive scheduling where a portion of the facility may become inoperative due to construction and to prevent extra costs resulting from improper project scheduling.

Relationship to FAA Capital Improvement Program

The projects, phasing, and costs presented in this Airport Master Plan Update are the best projections that can be made at the time of formulation. The purpose of the project list, phasing, and costs listed here is to provide a reasonable projection of capital needs, which can then be utilized in financial programming to test for financial feasibility. As soon as it is published, the project list starts to be out of date and, therefore, it will always differ to some degree with the airport's 5-year CIP on file with the FAA.

BUILDING LEGEND											
#	DESCRIPTION	ELEVATION	#	DESCRIPTION	ELEVATION	#	DESCRIPTION	ELEVATION	#	DESCRIPTION	ELEVATION
1.	K.C. DEPT OF SAFETY		8.	AIRBORNE EXPRESS		22.	KCIA ADMINISTRATION		35b.	MAINTENANCE	
2.	AEROFLIGHT		9.	AERO COPTERS		22a.	KCIA ADMINISTRATION		35c.	MAINTENANCE	
3.	SEATTLE AIR CORP., INC.		10.	NORDSTROM, INC.		23.	JOSEPH FINELLI AVIATOR'S STORE		35d.	MAINTENANCE	
3a.	SEATTLE AIR CORP., INC.		11.	GALVIN FLYING SERVICE		24.	GALVIN FLYING SERVICE		35e.	MAINTENANCE	
4.	WINGS ALOFT T-HANGAR		11a.	GALVIN FLYING SERVICE		24a.	GALVIN FLYING SERVICE		36.	FAA FLIGHT SERVICE STATION (TO BE REMOVED)	
4a.	WINGS ALOFT T-HANGAR		11b.	GALVIN FLYING SERVICE		25.	NATIONAL AVIATION SUPPLY		37.	MOTOR POOL BUILDING (TO BE REMOVED)	
4b.	WINGS ALOFT T-HANGAR		12.	WESTERN METALS		26.	AMERICAN AVIONICS		38.	WASHINGTON AIR NATIONAL GUARD	
4c.	WINGS ALOFT T-HANGAR		12a.	WESTERN METALS		27.	GALVIN		38a.	WASHINGTON AIR NATIONAL GUARD	
4d.	WINGS ALOFT T-HANGAR		13.	WESTERN METALS		28.	KING COUNTY JET CENTER, INC.		38b.	WASHINGTON AIR NATIONAL GUARD	
4e.	WINGS ALOFT T-HANGAR		14.	HANGAR HOLDINGS		29.	T-HANGARS		38c.	WASHINGTON AIR NATIONAL GUARD	
5.	FLIGHTCENTER		15.	FEDERAL EXPRESS		30.	T-HANGARS		38d.	WASHINGTON AIR NATIONAL GUARD	
5a.	FLIGHTCENTER		16.	AMERIFLIGHT		31.	T-HANGARS		38e.	WASHINGTON AIR NATIONAL GUARD	
6.	BURLINGTON AIR EXPRESS		17.	X-RAY, INC.		32.	CLASSIC HELICOPTER		38f.	WASHINGTON AIR NATIONAL GUARD	
7.	AIRWEST SALES		18.	B & B AIRCRAFT		33.	AVIATION FUEL STORAGE CO.		39.	METRO SOILS	
7a.	AIRWEST SALES		18a.	7300 BUILDING		34.	ROSSO NURSERY		40.	BOEING CO. - MARKOV SITE	
7b.	AIRWEST SALES		20.	ARRIVALS BUILDING		35.	MAINTENANCE		40a.	BOEING CO. - MARKOV SITE	
7c.	AIRWEST SALES		21.	TERMINAL BUILDING		35a.	MAINTENANCE				

NOTE: TOP ELEVATIONS TO BE ADDED FOLLOWING COMPLETED BUILDING SURVEY BY KING COUNTY INTERNATIONAL AIRPORT.

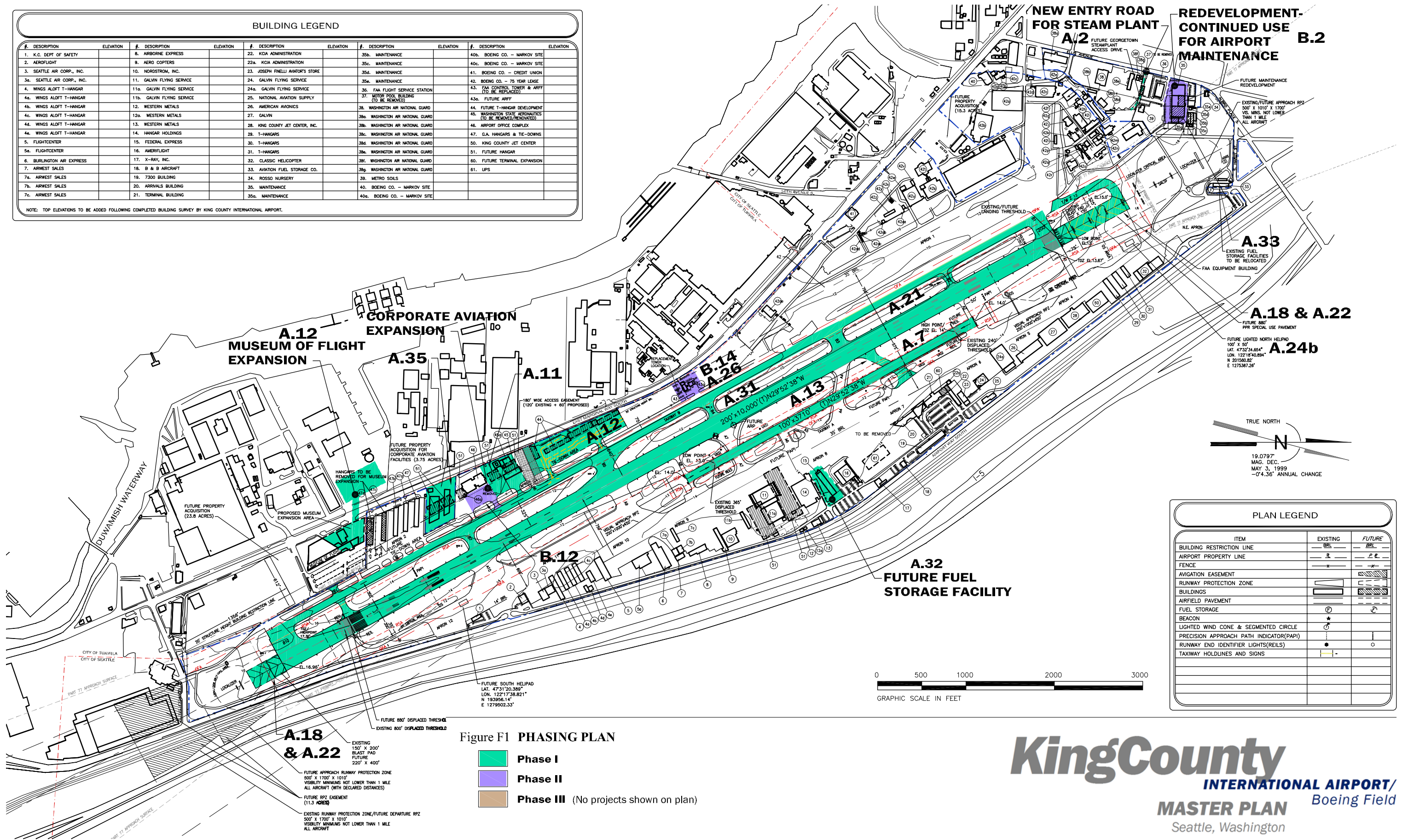


Figure F1 PHASING PLAN

- Phase I
- Phase II
- Phase III (No projects shown on plan)

Intentionally Left Blank
(for two-sided reproduction)

DO NOT USE BELOW IN DRAFT REPORT – IT WILL BE COVERED IN THE FINANCIAL CHAPTER WHICH FOLLOWS

Preliminary Financial Analysis

Introduction

Evaluating the financial feasibility of the Master Plan capital improvement program is an essential component of the overall planning process. This preliminary analysis is used to determine financial feasibility, at a summary level, for the development concept under consideration. The objective of the analysis is to determine a practical basis for matching the amounts and timing of estimated capital costs with projected capital funding sources. This objective includes identification of a practical method to expand and improve airport facilities within its financial capabilities while maintaining a reasonable level of user rates and charges. To achieve these objectives, potential funding difficulties will be analyzed and addressed as input for the later preparation of the detailed financial implementation plan for the recommended fifteen-year capital improvement program.

Approach and Assumptions

The overall approach and assumptions used for completing the preliminary feasibility analysis initially included:

- Reviewing Airport financial information including Master Plan capital improvement program and cost estimates, revenue and expense estimates, internal financial statements, future debt capacity and other financial documents
- Assuming project development priorities for CIP projects during each of the three planning phases and scheduled project completion to achieve relatively balanced levels of project expenditures on an annual basis
- Escalating project cost estimates using an annual inflation rate of 3.0%

- Considering potential sources of capital funding including AIP discretionary grants, AIP noise grants, FAA Facilities & Equipment funds, state aviation grants, economic development funds, private third party financing, Airport cash reserves/net revenues and debt
- Reviewing the initial summary analysis with Airport management to resolve financing difficulties including correcting/revising the amounts, availability and time frame of the identified funding sources, identifying funding sources not previously considered and adjusting the development schedule of projects
- Evaluating the results of funding and development revisions, reviewing with Airport management and developing financial feasibility conclusions

Preliminary Project Cost Estimates and Development Schedule

The following table, entitled *PRELIMINARY PROJECT COST ESTIMATES AND DEVELOPMENT SCHEDULE*, presents the preliminary capital improvement program scheduled by year for the Phase I period (2000-2005), in total for Phase II (2006-2010) and in total for Phase III (2011-2015). An assumed 3.0% annual rate of inflation was applied for projects scheduled in 2001 and later years. As a result,

Table
Preliminary Project Cost Estimates and Development Schedule
Page 1

Table
Preliminary Project Cost Estimates and Development Schedule
Page 2

preliminary Phase I project costs increase from \$63.3 million to \$68.7 million due to inflation. Preliminary Phase II project costs increase from \$10.2 million to \$12.8 million and Phase III project costs increase from \$18.5 million to \$26.8 million. Total preliminary project costs increase from \$92.0 million to \$108.3 million due to inflation.

The preceding table also provides an indication of potential sources of capital funding. These sources are based on project eligibility for FAA AIP entitlement, discretionary, Noise Program and Facilities & Equipment funds. Airport cash reserves/net revenues and private third party financing are assumed for other projects that are not eligible for federal funding. The actual availability of these funding sources is not addressed in this table.

Preliminary Capital Funding Sources

The next table, entitled *PRELIMINARY CAPITAL FUNDING SOURCES*, presents the preliminary capital funding sources during each phase of the planning period. In addition to FAA program funding sources, Airport net revenues, a potential debt issue (less debt service), undesignated cash reserves and private third party financing are provided. No funding from state aviation grants or economic development grants has been identified.

At a summary level of analysis, the *PRELIMINARY CAPITAL FUNDING SOURCES* is used to match the availability of capital funding with proposed capital expenditures on a phase-by-phase basis. As shown in the table, a funding surplus occurs during the first five years (2000-2004) of Phase I (ranging from \$3.7 million to \$7.0 million). In 2005, a deficit of \$3.4 million occurs primarily due to a lack of funding for the West Side Development - Land Purchase and Apron project (\$6.6 million - A.35). During Phase II, a deficit of \$5.4 million occurs due to several projects, most notably the Pavement Rehabilitation (B.9) program with a cost of \$6.2 million throughout the period. During Phase III, a deficit of \$20.6 million occurs caused by several projects with the largest being the \$14.5 million Land Acquisition (C.9). As indicated in the *PRELIMINARY CAPITAL FUNDING SOURCES* table, the FAA is planning for a significant level of funding support from AIP discretionary and noise grants (\$43.2) throughout the development period. Nevertheless, sufficient funding does not appear to be available for all projects that are eligible. This will be mitigated if Congress appropriates funding levels for the AIP program that the recently passed AIR-21 authorization levels indicate. With full appropriations, the minimum passenger entitlement will be \$1 million per year rather \$650,000. It should also be noted that the indicated debt issue amount of \$14.8 million may be beyond the Airport's current debt capacity. Appropriate debt levels will be further addressed in the next section of

Table
Preliminary Capital Funding Sources

implementation analysis where detailed revenue and expense projections are developed.

Preliminary Analysis Conclusions

Further analysis of the capital program is needed to determine if those projects that require FAA funding can be reduced in scope, delayed or eliminated. When this analysis is completed, a project-by-project funding schedule will be prepared that indicates all funding sources for each individual project. The objective for the detailed analysis will be to develop a capital program that indicates the Airport's level of financial commitment and presents a reasonable match between planned capital expenditures and funding sources available. This schedule, along with the detailed revenue, expense, debt and cash flow analyses, should then be reviewed with the FAA to reassess their priorities and level of commitment to the AIP eligible projects. With this level of commitment determined, the detailed analysis can be revised to result in a feasible implementation plan.

DO NOT USE BELOW

Table F1
PHASE I (0-5 YEARS) DEVELOPMENT PLAN PROJECT COSTS
King County International Airport Master Plan Update

No.	Project Description	Cost
2000		
A1	Storm Water Permit	\$200,000
A2	Construct New Steam Plant Access Road	\$495,000
A3	West Side Redevelopment Design	\$190,000
A4	Terminal Building Remodel Design	\$500,000
A5	Preparation of Pavement Management Program w/Pavement Strength Analysis	\$60,000
A6	Preparation of Utility Improvement Plans (water, sanitary sewer, electric, storm sewer)	\$200,000
A7	Runway 13L/31R Resurfacing, Signs, and REILS	\$1,650,000
A8	Pavement Rehabilitation - Miscellaneous	\$88,000
A9	Install/Upgrade Fuel/Oil Separators	\$500,000
2000 Total		\$3,883,000
2001		
A10	Stormwater Monitoring Stations	\$26,000
A11	Westside Development – Phase I (2 hangars/office structures, ramp, auto parking, utilities, etc.)	\$4,800,000
A12	Museum of Flight Expansion and Hangar Relocation ¹	\$0
A13	Construct Taxiway A3	\$1,185,000
A14	Construct Taxiway B9	\$1,185,000
A15	Terminal Building Remodel (Phase I – Old Building)	\$4,500,000
A16	Air Cargo Facility Improvements ¹	\$0
A17	Pavement Rehabilitation	\$799,000
A18	Transponder Landing System	\$750,000
A19	ARFF Truck (fire-x)	\$175,000
2001 Total		\$14,123,000
2002		
A20	Terminal Building Remodel (Phase II – new building)	\$1,120,000
A21	Noise Remedy Program Implementation w/Design of Runup Noise Enclosure	\$1,000,000
A22	Construct New Exit Taxiway A3	\$1,254,000

A23 Widen Taxiway B2 \$745,000

¹ Non-airport, non-FAA, third party funding.

Note: Cost estimates are based on 1999 data and are intended for preliminary planning purposes. These cost estimates do not reflect a detailed engineering evaluation.

Table F1 (continued)
PHASE I (0-5 YEARS) DEVELOPMENT PLAN PROJECT COSTS
King County International Airport Master Plan Update

No.	Project Description	Cost
2002 (continued)		
A24	Construct Runway Shift, Implement Declared Distances, Improve Blast Pads (both ends of runway), Construct Buffer Wall	\$5,871,000
A25	Transponder Landing System (Phase II)	\$750,000
A26	Pavement Rehabilitation	\$904,000
	2001 Total	\$11,644,000
2003		
A27	Design & Construct Aircraft Deicing Station	\$510,000
A28	Noise Remedy Program Implementation w/Construction of Runup Noise Enclosure	\$5,500,000
A29	Pavement Rehabilitation	\$776,000
A30	Design of New Maintenance Facility (including Snow Removal Equipment Bldg.) & Demolition of Old Facility	\$379,000
	2003 Total	\$7,165,000
2004		
A31	Noise Remedy Program Implementation	\$500,000
A32	Airport Master Plan Update	\$350,000
A33	Pavement Rehabilitation	\$801,000
A34	Construct Snow Removal Equipment Building	\$818,000
A35	Runway 13R/31L Reconstruction	\$6,025,000
	2004 Total	\$8,494,000
2005		
A36	Construction of New Fuel Storage Facility ¹	\$0
A37	Removal of Ex. Fuel Storage Facility, Reclamation of Site, and Buy-Out of Lease	\$1,000,000
A38	Noise Remedy Program Implementation	\$500,000
A39	Westside Development Phase II – Land Purchase and Apron	\$5,680,000
A40	Pavement Rehabilitation	\$803,000
	2005 Total	\$7,983,000

Phase I Total	\$53,142,000
----------------------	---------------------

1 Non-airport, non-FAA, third party funding.

Note: Cost estimates are based on 1999 data and are intended for preliminary planning purposes. These cost estimates do not reflect a detailed engineering evaluation.

Table F2

PHASE II (5-10 YEARS) DEVELOPMENT PLAN PROJECT COSTS

King County International Airport Master Plan Update

No.	Project Description	Cost
B1	Passenger Terminal Building and Parking Improvements (if demand for improved passenger service facilities) ¹	\$0
B2	Air Cargo Facility Improvements ¹	\$0
B3	Part 150 Noise Remedy Update	\$300,000
B4	Runway/Taxiway Electrical System Improvements	\$1,000,000
B5	Security Improvements (Part 107)	\$1,500,000
B6	Pavement Rehab Projects (\$1.0 million/year x 5)	\$5,000,000
B7	General Aviation Hangar Construction (Infill and Redevelopment) ¹	\$0
B8	Utility Improvements (\$150,000 per year)	\$750,000
B9	West Side Development Phase III ¹	\$0
B10	Purchase ARFF Truck (1500 Oskosh)	\$350,000
B11	Construct New Air Traffic Control Tower ²	\$0
Phase II Total		\$8,900,000

1 Non-airport, non-FAA, third party funding.

2 100% FAA Facilities and Equipment Funding

Note: Cost estimates are based on 1999 data and are intended for preliminary planning purposes. These cost estimates do not reflect a detailed engineering evaluation.

Table F3

PHASE III (10-15 YEARS) DEVELOPMENT PLAN PROJECT COSTS

King County International Airport Master Plan Update

No.	Project Description	Cost
C1	Pavement Rehabilitation Projects (\$1.0 million per year)	\$5,000,000
C2	Passenger Terminal Building and Parking Improvements ¹	\$0
C3	Air Cargo Facility Improvements ¹	\$0
C4	General Aviation Hangar Construction (Infill and Redevelopment) ¹	\$0
C5	Utility Improvements (\$400,000 per year)	\$2,000,000
C6	ARFF Facility Improvements	\$1,500,000
C7	Landing Aid Improvements ²	\$0

C8 Cargo Facility Improvements ¹	\$0
C9 Land Acquisition	\$10,00,000
<hr/>	
Phase III Total	\$18,500,000
<hr/>	
GRAND TOTAL ALL PHASES	\$80,542,000
<hr/>	

1 Non-airport, non-FAA, third party funding.

2 100% FAA Facilities and Equipment Funding

Note: Cost estimates are based on 1999 data and are intended for preliminary planning purposed. These cost estimates do not reflect a detailed engineering evaluation.