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EXECUTIVE SUMMARY

1.1 INTRODUCTION

The Yakima Air Terminal/ McAllister Field (YKM) Master Plan has been developed to guide future airport development to accommodate long-term growth in airline, air cargo, general aviation, aviation industrial and military needs. The successful completion of this master plan is the result of a collaborative effort among airport and community stakeholders which included the City of Yakima, the Federal Aviation Administration (FAA), Yakima County, the City of Union Gap, airport tenants, regional agencies and the general public. This process is depicted in Figure 1-1.

Figure 1-1: Master Planning Process

The YKM Master Plan followed a logical process that proceeded with consistent review and comments from the public and stakeholder groups throughout. Additionally, the master plan's scope was expanded to include three specialized analyses:

1. A detailed assessment of the passenger terminal building including recommendations for future terminal development,
2. An evaluation of all paved areas on the airport (including airfield, roadways and parking lots) and an update of the Pavement Conditions Index (PCI) report. The result is a

detailed Pavement Maintenance Program that is included in the proposed Capital Improvement Program (CIP),

3. An analysis of the airport's financial condition and assessment of its ability to generate sufficient funds to implement the CIP.

The final master plan provides a phased schedule for development and gives the City advanced notice of pending needs to aid in future scheduling and budgeting. The master plan will guide the physical growth of the airport in coordination with future demand for services, available funding, and environmental considerations. The airport master plan uses text, drawings, pictures and graphs to explain plans for future development both on and around the airport.

1.2 WHAT IS THE GOAL OR PURPOSE OF THIS AIRPORT MASTER PLAN?

The goal of the master plan is to provide a framework to guide future airport development that will effectively satisfy aviation demand, while giving full consideration of potential environmental and socioeconomic impacts. The master plan provides the tools necessary to react to uncertainties by examining key trends in the aviation industry, such as changing airline business models, improvements in technology, and local/regional economics that could affect airport activity.

1.3 WHAT ARE THE PROJECT'S MISSION STATEMENTS?

At the initiation of the master plan, key stakeholders including airport tenants, users, neighbors, local governmental entities (City of Yakima, Yakima County, and City of Union Gap), economic development agencies (Chamber of Commerce, Economic Development Agencies), and others participated in stakeholder interviews and workshops to establish the community issues to be addressed during the development of the plan. As a result of these, project mission statements were developed to help guide the effort of the planning team. These are as follows.

1.3.1 Community and Agency Advisory Committee (CAAC) Statement

The CAAC included owners of property in the area surrounding the airport; elected representatives of the communities in the vicinity; planning commissioners from Union Gap, City of Yakima and Yakima County; and economic development organizations and the Chambers of Commerce from those same communities. The input of this committee resulted in the following mission statement:

"The YKM master plan should result in an airport that serves the community (cities and county), provides reliable air service, and is a safe, first-class regional facility that remains compatible with the community."

1.3.2 Technical Advisory Committee (TAC)

The TAC was comprised of aviation, business, community, and public interests (i.e. pilots, passengers, airline representatives, local and regional governmental entities, airport tenants, Fixed Base Operator (FBO), air cargo companies, property owners, "at-large" positions (reserved for citizens) and airport board members. The input of this committee resulted in the following mission statement:

"The YKM master plan should promote aviation, establish a clear vision to be followed by the City, be implementable, financially feasible, and adoptable by the FAA, county, and cities."

1.4 WHAT ARE THE COMPONENTS OF AN AIRPORT MASTER PLAN?

Developing the master plan followed a process that included;

- Collect and analyze data regarding existing facilities, current activity and operations
- Develop aviation activity forecasts for a twenty-year time period
- Determine the future requirements for facility expansion or upgrade needed to accommodate activity growth
- Develop alternative concepts for airport development and analyze the best course for future development decisions with respect to cost, environmental factors, land use compatibility and other factors.
- Develop a financial implementation plan
- Conduct an environmental review/analysis
- Prepare the Airport Layout Plan (ALP) in accordance with federal airport operating and design standards

The following chart shows the process used over the course of plan development.

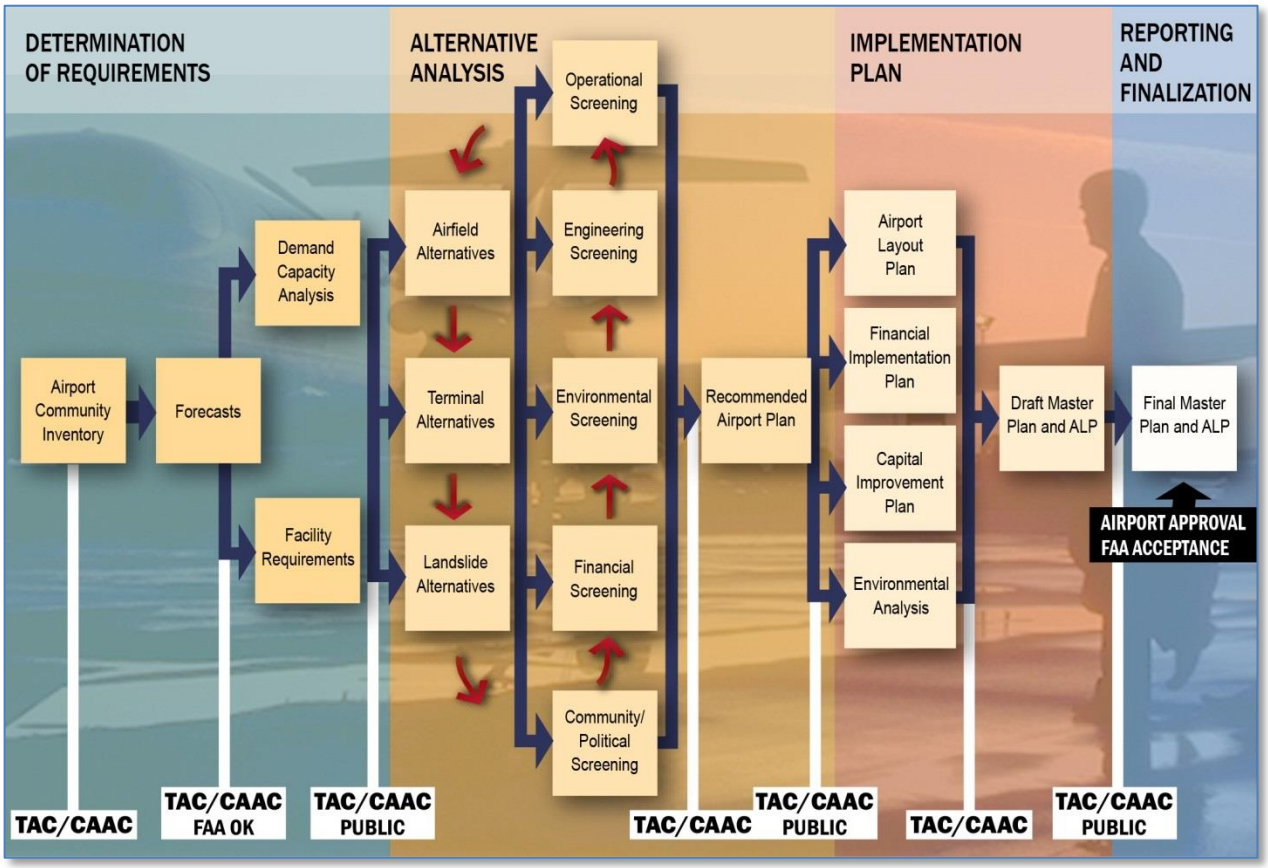


Figure 1-2: Airport Master Plan Components

1.5 WHAT WERE THE KEY ISSUES FOR THIS MASTER PLAN?

The key issues addressed in this master plan include: (1) the need for an extension to Runway 9/27, (2) the future for Runway 4/22, (3) revisions to the Airport Safety Overlay Zone, (4) planning for a new passenger terminal, (5) the development of additional general aviation facilities, and (6) the preservation of airport lands for potential use by aircraft manufacturing or maintenance facilities.

1.6 WHAT IS THE APPROVAL PROCESS FOR THE AIRPORT MASTER PLAN?

Airport master plans are approved by the legal sponsor, or "owner," of the airport, in this case the City of Yakima. FAA will accept the master plan once it is approved by the City. The FAA's acceptance of the plan represents acceptance of the general location of future facilities with respect to the safety, efficiency, and utility of the airport. Additional approvals and steps are needed before the FAA will move a planned project into the design and construction phase.

Once formal approval of the master plan is complete, the local jurisdictions (Yakima County, the City of Yakima and the City of Union Gap) are encouraged to adopt the plan's recommendations into their Comprehensive Planning process.

1.7 STUDY FINDINGS

1.7.1 Aviation Demand Forecasts

Forecasts of future activity were prepared using methods detailed in FAA Advisory Circular (AC) 150/5070-6B "Airport Master Plans." Details of the historical information used as the forecast base, the assumptions used, and final decisions regarding the development of the forecasts are contained in Chapter 3, the following six items summarize the results.

The growth in the number of commercial passengers using YKM will continue to be influenced by the level of service at both the Tri-Cities and Seattle-Tacoma International Airports until such time as additional service destinations are added to the Yakima schedule. Efforts by the City of Yakima, Yakima County and other local supporters of the airport, such as the Chamber of Commerce and the Yakima Valley Development Agency successfully attracted SeaPort Airlines, which offered six daily flights to Portland International Airport and Pangborn Memorial Airport in Wenatchee beginning in March 2012 and ending in December 2012. This additional passenger service expanded the range of the commercial market at YKM but was ultimately unsuccessful due to financial and operational factors common to start-up airlines.

Increase scheduled commercial service will be driven by increasing passenger levels, airline decisions regarding new destinations, and overall airline profitability. This means that adding flights to the daily schedule will depend on whether the airline is attaining satisfactory load factors on its existing flights. In other words, the aircraft operating at YKM will need to depart with profitable load factors before flights are added. Since it is likely that service will continue to be offered on 75- to 100-passenger aircraft, such as the Bombardier Q-400 currently being used by Alaska Airlines or

a similarly sized regional jet, this translates to an average of 80 percent loads or 60 to 80 passengers per departure.

Air cargo and air taxi operations are primarily carried out by the three carriers using small turboprop aircraft such as the Cessna Caravan, Embraer 120, or Cessna 340. Cargo service will continue to expand as the population in the Yakima Valley grows however this service will continue to be offered by small "feeder" aircraft operating from YKM to the carriers' bases at Boeing Field, Spokane International Airport, or Seattle-Tacoma International Airport.

The general aviation community in YKM is healthy and active and the forecasts show continued growth is expected over the 20-year forecast period. It is assumed the business aviation sector will remain the most active and that business-related operations will increase in the future. Sport aviation and private flights in small, piston aircraft will also remain active at YKM.

The number of aircraft based at YKM will continue to grow as aircraft owners seek the services offered at YKM and take advantage of the good flying weather in the valley.

Military operations at YKM consist primarily of training on the Instrument Landing System (ILS). Future use by the military is unpredictable, but this forecast assumes the military will continue to use the airport as it has in the past. Table 1-1 shows the anticipated growth in activity levels forecast for YKM.

Table 1-1: Forecast Summary

	Actual	Forecast			
	2010	**2015**	**2020**	**2025**	**2030**
Enplaned Passengers	58,994	65,134	75,508	96,370	122,995
Operations					
Commercial	2,190	2,285	2,483	2,983	3,596
Air Cargo/Air Taxi	5,777	6,222	6,701	7,219	7,778
General Aviation	38,481	40,130	42,132	44,287	46,651
Military	4,040	4,040	4,040	4,040	4,040
Total Operations	50,488	52,677	55,357	58,529	62,065
Based Aircraft	162	175	185	196	208

Source: Actual - Airport Records
Forecast - URS

1.7.2 Airport Requirements

The master plan next looked at the existing facilities at YKM and assessed their ability to accommodate the forecast activity levels. Any capacity deficiencies were identified as were actions needed to correct them. Issues addressed were the ultimate configuration of the airfield, the passenger terminal, air cargo facilities, aircraft hangar and apron areas, Fixed Base Operator (FBO) facilities, access and vehicle parking, utilities, and aviation support facilities. A summary of the requirements is presented in Table 1-2.

Table 1-2: Summary of Facility Requirements

Actual	Conclusions
Airfield System	The wind coverage and capacity needs at YKM are met by a single runway. Runway 9/27, at 7,604 feet, provides sufficient take-off length for most of the aircraft forecast to use the airport. However, if unanticipated demand arises or if the City successfully attracts new aviation related businesses, the runway may need to be extended in the future.
Passenger Terminal	The passenger terminal building needs to be remodeled and renovated to serve short-term needs and will require expansion before 2020. Terminal maintenance issues may require that action be taken sooner to maintain an acceptable level of passenger service.
Automobile Parking	URS recommends expanding the public, rent-a-car ready/return and parking area prior to 2020.
Air Cargo	Although air cargo is forecasted to continue to consist of feeder service using small aircraft, additional space will need to be provided in the future, either by remarking existing pavement or by constructing a new air cargo apron.
Based Aircraft Hangar Storage	With the forecasted growth in based aircraft, as well as the existing unmet demand for hangar space, additional area for hangar development will need to be made available.
FBO and support facility expansion	Expanded FBO facilities will be required to provide support for the general aviation community. These facilities will provide not only aircraft maintenance hangars, but also pilot lounge areas, area for fueling aircraft, and sufficient space for transient aircraft parking.
Fueling	The current system is adequate, assuming the private sector continues to upgrade its facilities and improve delivery as needed.

1.8 AIRPORT DEVELOPMENT PLAN

The facility requirements that require physical improvements are identified in the preceding and alternative ways to meet them were developed and compared with a preferred development plan selected as the basis for the Airport Layout Plan (ALP). The findings of the alternative analyses are summarized in the following table.

Table 1-3: Summary of Analysis of Alternatives

Issue	Conclusions	Summary
Airport Classification and Design:		
FAA ARC Classification	C-III for all airfield facilities.	No alternatives were considered.
Runways:		
Runway Length	The recommendation is to extend the runway to 8,847 feet. It was necessary to assure that the existing length of 7,604 feet is maintained on Runway 9/27 to accommodate all forecast operations. Preserving the potential for a runway extension should demand for additional length occur in the future, either to accommodate new aircraft or as part of a strategic plan to attract new airport tenants was determined to be essential to the long term goal of using the airport as a central component of community economic development.	Three alternatives were considered including: (1) keeping the runway at its current length; (2) maintaining the previous master plan's recommendation for extension of the runway to 10,000 feet; or (3) extending the within the current airport property lines (8,847 feet).
Crosswind Runway	FAA standards have shown that Runway 4/22 is not required for either capacity or wind coverage. Therefore the runway is not eligible for continued FAA funding.	The alternatives considered were to either close the runway and redevelop the land for other airport purposes or for the City to commit locally generated funds to its long-term maintenance and operation. The City has determined that the runway should continue to function until the cost of maintenance exceeds the City's ability to finance them.

Table 1-3: Summary of Analysis of Alternatives (Continued)

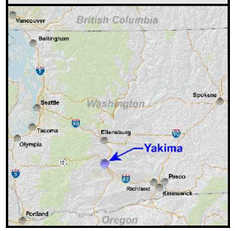
Issue	Conclusions	Summary
Terminal Facilities:		
Passenger Terminal Building	The existing terminal building will need to be larger to accommodate increases in enplaned passengers. Additionally, the condition of the existing building is such that major maintenance and rehabilitation efforts will be needed to keep it functional.	Two primary alternatives were considered: the first maintains operations in the existing terminal building and the second constructs a new terminal to replace the existing. Several alternatives were considered as to the ultimate location of a new terminal. It is recommended that a new terminal be constructed at the existing site in order to continue to use the aircraft apron and automobile parking facilities.
Support Facilities	The airline apron, automobile parking, and other facilities associated with the passenger terminal are included in the alternative discussion related to the terminal building.	All decisions for these facilities will be driven by the ultimate decision regarding the location of the terminal building.
General Aviation:		
General Aviation Facility	The existing GA areas will need to grow in order to accommodate the increased demand for hangar and aircraft parking aprons.	Primary consideration has been given to where new GA development should occur. The recommended actions are to have the City purchase those facilities that are part of the closed Noland Dacoto facility and reopen them to airport use. Additional demand should be accommodated in the south GA area.
Based Aircraft Hangar Storage	Recommend construction of corporate and T-hangars	Build or No-build
Fixed Base Operator (FBO) and support facility expansion	New FBO facilities are required to provide support for the general aviation community	Build or No-build
Support Facilities:		
Fueling	The current system is adequate. The private sector will continue to upgrade and improve as needed.	None
Airport Maintenance	Recommend consolidated maintenance facility be constructed.	On- or off-airport site.

1.9 AIRPORT LAYOUT PLAN

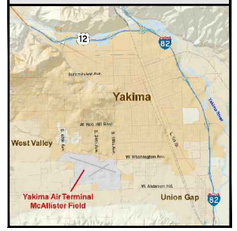
The YKM Airport Layout Plan (Sheet 2 of 12) depicts the existing airport facilities and the recommended improvement projects. Specifically shown on these drawings are;

1. The eventual extension of Runway 9/27 to a total length of 8,847 feet to allow the City to be prepared to provide added length when it becomes necessary. Although demand for this extension is not anticipated during the 20-year time horizon it could materialize at any time should the city's efforts to attract industry to the airport be successful.
2. The continued maintenance of Runway 4/22 as pavement conditions deteriorates and the surface becomes unsuitable for aircraft operations. Repairs to this runway are not eligible for federal funds.
3. Reconfiguration of some access taxiways and taxilanes to eliminate direct access to the runway. These changes are proposed to lessen the possibility for runway incursions.
4. The addition of a partial parallel taxiway on the south side of Runway 9/27 to increase safety by providing runway crossings at the end of the runway instead of at the intersection.
5. Construction of a new passenger terminal building at the site of the existing building. This allows for the continued use of the access and parking facilities as well as of the concrete aircraft apron.
6. Acquisition of portions of the former Noland-Dacoto property and returning the hangars and aviation facilities to service to accommodate increases in general aviation demand.
7. Construction of an additional parallel taxiway to the South GA area to allow for two way traffic from the hangars to the runway.

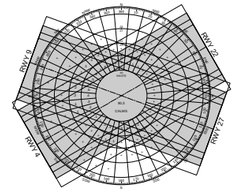
AIRPORT VICINITY



AIRPORT LOCATION



ALL-WEATHER WIND ROSE

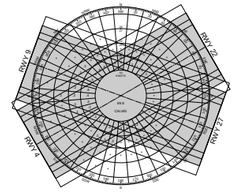


ALL-WEATHER (78,061 OBSERVATIONS)

CROSSWIND	RWY 04/22	RWY 09/27	COMBINED
10.5 KNOTS	94.43 %	96.51 %	98.18 %
13 KNOTS	96.83 %	98.01 %	99.26 %
16 KNOTS	99.07 %	99.26 %	99.79 %
20 KNOTS	99.81 %	99.81 %	99.97 %

NOAA WEATHER REPORTING STATION: 72781 YAKIMA, WA
OBSERVATION PERIOD: 2000 - 2009

VISUAL FLIGHT RULES WIND ROSE

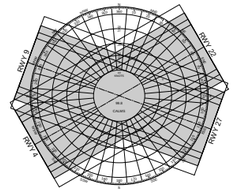


VFR (73,893 OBSERVATIONS)

CROSSWIND	RWY 04/22	RWY 09/27	COMBINED
10.5 KNOTS	94.12 %	96.32 %	98.08 %
13 KNOTS	96.66 %	97.90 %	99.22 %
16 KNOTS	99.02 %	99.22 %	99.78 %
20 KNOTS	99.80 %	99.80 %	99.97 %

NOAA WEATHER REPORTING STATION: 72781 YAKIMA, WA
OBSERVATION PERIOD: 2000 - 2009

INSTRUMENT FLIGHT RULES WIND ROSE



IFR (3,147 OBSERVATIONS)

CROSSWIND	RWY 04/22	RWY 09/27	COMBINED
10.5 KNOTS	99.87 %	99.88 %	99.92 %
13 KNOTS	99.93 %	99.93 %	99.95 %
16 KNOTS	99.97 %	99.97 %	99.97 %
20 KNOTS	99.97 %	99.97 %	99.97 %

NOAA WEATHER REPORTING STATION: 72781 YAKIMA, WA
OBSERVATION PERIOD: 2000 - 2009

RUNWAY DATA TABLE

ITEM		RUNWAY 4-22 EXISTING STANDARD	RUNWAY 4-22 EXISTING ACTUAL	RUNWAY 4-22 PROPOSED		RUNWAY 9-27 EXISTING STANDARD	RUNWAY 9-27 EXISTING ACTUAL	RUNWAY 9-27 PROPOSED
RUNWAY DESIGN CATEGORY		B-I (SMALL)		NO CHANGE		C-III		NO CHANGE
CRITICAL AIRCRAFT		BEECH BARON		NO CHANGE		BOMBARDIER Q-400		NO CHANGE
RUNWAY DIMENSIONS LENGTH:		3,835'		NO CHANGE		7,604'		8,847'
RUNWAY DIMENSIONS WIDTH:		60'	150'	NO CHANGE		150'	150'	NO CHANGE
RUNWAY ORIENTATION		N 59° 56' E (TRUE)		NO CHANGE		N 70° 03' W (TRUE)		NO CHANGE
PERCENT WIND COVERAGE (16 KNOT)		95%	99.07%	NO CHANGE		95%	99.26%	NO CHANGE
LINE-OF-SIGHT		NOT OBSTRUCTED		NO CHANGE		NOT OBSTRUCTED		NO CHANGE
PAVEMENT TYPE		ASPHALT		NO CHANGE		ASPHALT		NO CHANGE
PAVEMENT DESIGN STRENGTH SINGLE GEAR:		70,000 LBS		NO CHANGE		95,000 LBS		NO CHANGE
PAVEMENT DESIGN STRENGTH DUAL GEAR:		80,000 LBS		NO CHANGE		160,000 LBS		NO CHANGE
PAVEMENT DESIGN STRENGTH DUAL TANDEM GEAR:		120,000 LBS		NO CHANGE		220,000 LBS		NO CHANGE
VISUAL APPROACH AIDS	RW 4	PAPI, REIL		NO CHANGE	RW 9	VASI, REIL		NO CHANGE
	RW 22	PAPI, REIL		NO CHANGE	RW 27	MALSR, PAPI		NO CHANGE
INSTRUMENT APPROACH AIDS	RW 4	NONE		NO CHANGE	RW 9	RNAV (RNP)		NO CHANGE
	RW 22	NONE		NO CHANGE	RW 27	ILS (CAT I)		NO CHANGE
APPROACH VISIBILITY MINIMUMS	RW 4	VISUAL		NO CHANGE	RW 9	NPI ≥ 3/4-MILE		NO CHANGE
	RW 22	VISUAL		NO CHANGE	RW 27	PIR ≥ 3/4-MILE		NO CHANGE
FAR PART 77 APPROACH SLOPE	RW 4	20:1	20:1	NO CHANGE	RW 9	34:1	34:1	NO CHANGE
	RW 22	20:1	20:1	NO CHANGE	RW 27	50:1	50:1	NO CHANGE
LIGHTING		MIRL	MIRL	NO CHANGE		HIRL	HIRL	NO CHANGE
MARKING	RW 4	VISUAL	VISUAL	NO CHANGE	RW 9	NPI	NPI	NO CHANGE
	RW 22	VISUAL	VISUAL	NO CHANGE	RW 27	PIR	PIR	NO CHANGE
RUNWAY SAFETY AREA (RSA) [1] LENGTH BEYOND DEPARTURE END:		240'	600'	NO CHANGE		1,000'	1,000'	NO CHANGE
RUNWAY SAFETY AREA (RSA) [1] LENGTH PRIOR TO THRESHOLD:		240'	600'	NO CHANGE		600'	600'	NO CHANGE
RUNWAY SAFETY AREA (RSA) [1] WIDTH:		120'	200'	NO CHANGE		522' [1]	522' [1]	NO CHANGE
OBJECT FREE AREA (OFA) LENGTH BEYOND DEPARTURE END:		240'	600'	NO CHANGE		1,000'	1,000'	NO CHANGE
OBJECT FREE AREA (OFA) LENGTH PRIOR TO THRESHOLD:		240'	600'	NO CHANGE		600'	600'	NO CHANGE
OBJECT FREE AREA (OFA) WIDTH:		250'	400'	NO CHANGE		800'	800'	NO CHANGE
OBSTACLE FREE ZONE (OFZ) WIDTH:		(NO OFZ OBJECT PENETRATIONS) 250'		(NO OFZ OBJECT PENETRATIONS) 250'		(NO OFZ OBJECT PENETRATIONS) 400'		(NO OFZ OBJECT PENETRATIONS) 400'
OBSTACLE FREE ZONE (OFZ) LENGTH BEYOND RW END:		200'		200'		200'		200'
PERCENT EFFECTIVE GRADIENT		1.4%	0.58%	NO CHANGE		1.4%	0.66%	NO CHANGE
MAX GRADE WITHIN RWY LENGTH (%)		1.4%	0.58%	NO CHANGE		1.4%	0.66%	NO CHANGE
RUNWAY ELEVATIONS (MSL) EXISTING END:	RW 4	1076.5'		NO CHANGE	RW 9	1098.8'		1106'
	RW 22	1055.5'		NO CHANGE	RW 27	1049.0'		NO CHANGE
RUNWAY ELEVATIONS (MSL) DISPLACED THRESHOLD:	RW 4	NOT APPLICABLE		NO CHANGE	RW 9	NOT APPLICABLE		NO CHANGE
	RW 22	NOT APPLICABLE		NO CHANGE	RW 27	NOT APPLICABLE		NO CHANGE
RUNWAY ELEVATIONS (MSL) TOUCHDOWN ZONE:	RW 4	1076.5'		NO CHANGE	RW 9	1092'		1098'
	RW 22	1055.5'		NO CHANGE	RW 27	1055'		NO CHANGE
RUNWAY INTERSECTIONS:		1059.26'		NO CHANGE		1059.26'		NO CHANGE
HIGH & LOW POINTS:	HIGH	1076.5'		NO CHANGE	HIGH	1098.8'		1106'
	LOW	1055.5'		NO CHANGE	LOW	1049.0'		NO CHANGE
END COORDINATES: [2] (NAD 83)		RW 4	RW 22	RW 4	RW 22	RW 9	RW 27	RW 9	RW 27
LATITUDE:		46°33'50.039" N	46°34'09.027" N	NO CHANGE	NO CHANGE	46°34'21.187" N	46°33'55.531" N	46°34'25.47" N	NO CHANGE
LONGITUDE:		120°32'53.285" W	120°32'05.812" W	NO CHANGE	NO CHANGE	120°33'34.355" W	120°31'52.080" W	120°33'50.97" W	NO CHANGE

[1] STANDARD RSA CALCULATED BASED ON AIRPORT ELEVATION.
[2] RUNWAY END COORDINATES AS REFLECTED ON AIRPORT 5010 FORM.

AIRPORT FACILITIES

#	DESCRIPTION	HEIGHT*
NW 1	BOX HANGAR	28'
NW 2	BOX HANGAR	28'
NW 3	BOX HANGAR	28'
NW 4	BOX HANGAR	28'
NW 5	BOX HANGAR	26'
NW 6	NON-AVIATION (VON DOREN SALES)	23.6'
NW 7A	FUEL TANKS	14'
NW 7B	FUEL HOUSE	11'
NW 8	BOX HANGAR	29'
NW 9	BOX HANGAR	29'
NW 10	BOX HANGAR	26'
NW 11	BOX HANGAR	25.5'
NW 12	BOX HANGAR	25.5'
NW 13	BOX HANGAR	29.5'
NW 14A	T-HANGAR	19'
NW 14B	FBO (McCORMICK)	30'
NW 15	BOX HANGAR	36'
NW 16	AIRPORT MAINTENANCE BUILDING	26'
NW 17	AIR CARGO BUILDING (FEDEX)	25'
T 1	HANGAR/NON-AVIATION	26'
T 2	OFFICE/AIRPORT ADMINISTRATION	18'
T 3	NON-AVIATION	22'
T 4	AIRCRAFT RESCUE FIRE FIGHTING (ARFF)	18'
T 5	TERMINAL BUILDING	41.5'
T 6	AIRPORT TRAFFIC CONTROL TOWER (ATCT)	78'
T 7	BOX HANGAR	~23'
T 8	BOX HANGAR	26'
T 9	ELECTRICAL VAULT	13.5'
T 10	OLD ELECTRICAL VAULT	10.5'
T 11	BOX HANGAR	27'
T 12	BOX HANGAR	28'
T 13	WATER TREATMENT PLANT	10'
T 14	BOX HANGAR	20'
T 15	BOX HANGAR	18'
T 16	BOX HANGAR	21'
T 17	BOX HANGAR	21'
E 1	CUB CRAFTERS	25'
E 2	CUB CRAFTERS	25'
E 3	McALLISTER MUSEUM	20'
E 4	NON-AVIATION (HAIR SALON)	19'
SE 1	BOX HANGAR	30'
SE 2	BOX HANGAR	21'
SE 3	BOX HANGAR	21'
SE 4	BOX HANGAR	21'
SE 5	JR HELICOPTER	26.2'
SE 6	BOX HANGAR	21'
SE 7	BOX HANGAR	21'
SE 8	BOX HANGAR	23'
SE 9	BOX HANGAR	20'
SE 10	T-HANGAR	15'
SE 11	T-HANGAR	16'
SE 12	AIRPORT SURVEILLANCE RADAR (ASR-9)	59'/82'
SE 13	NATIONAL GUARD	31'
SE 14	NATIONAL GUARD	~12'

*ABOVE GROUND LEVEL

PROPOSED AIRPORT FACILITIES

#	DESCRIPTION	HEIGHT*
T P1	TERMINAL BUILDING	TBD
SE P1	BOX HANGAR	TBD
SE P2	BOX HANGAR	TBD

*ABOVE GROUND LEVEL

AIRPORT DATA TABLE

ITEM	EXISTING	PROPOSED
AIRPORT TERMINAL CODE	YKM	NO CHANGE
AIRPORT ELEVATION (MSL)	1,099'	1,078'
AIRPORT REFERENCE POINT (ARP) (NAD 83) LAT.	46° 34' 05.40" N	46° 34' 10.41" N
AIRPORT REFERENCE POINT (ARP) (NAD 83) LON.	120° 32' 38.60" W	120° 32' 51.39" W
MEAN MAX. TEMP. OF HOTTEST MONTH	87° F (AUGUST)	NO CHANGE
COMBINED WIND COVERAGE	99.26% (13 KNOTS)	NO CHANGE
MAGNETIC DECLINATION & YEAR	17°35' E (SEPT. 2008)	NO CHANGE
AIRPORT REFERENCE CODE (ARC)	C-III	NO CHANGE
CRITICAL AIRCRAFT 1,000 MILE STAGE LENGTH	Q-400	NO CHANGE
NPIAS SERVICE LEVEL	COMMERCIAL SERVICE (CM)	NO CHANGE
TAXIWAY LIGHTING	MITL	NO CHANGE
TAXIWAY MARKING	STANDARD	NO CHANGE
AIRPORT & TERMINAL NAVAIDS	ILS, NDB, RNAV, LOM, BEACON	NO CHANGE

ABBREVIATIONS

ITEM	DEFINITION
ARP	AIRPORT REFERENCE POINT
ASOS	AUTOMATED SURFACE OBSERVING SYSTEM
ASR-9	AIRPORT SURVEILLANCE RADAR - 9
BRL	BUILDING RESTRICTION LINE
ILS	INSTRUMENT LANDING SYSTEM
HIRL	HIGH INTENSITY RUNWAY LIGHT
LOM	LOCATOR OUTER MARKER
MIRL	MEDIUM INTENSITY RUNWAY LIGHT
MITL	MEDIUM INTENSITY TAXIWAY LIGHT
MSL	MEAN SEA LEVEL
NDB	NON-DIRECTIONAL BEACON
NPI	NON-PRECISION INSTRUMENT APPROACH
NPIAS	NATIONAL PLAN OF INTEGRATED AIRPORT SYSTEMS
OFA	RUNWAY OBJECT FREE AREA
OFZ	RUNWAY OBJECT FREE ZONE
PAPI	PRECISION APPROACH PATH INDICATOR
PIR	PRECISION INSTRUMENT APPROACH
RAC	RENT-A-CAR
REIL	RUNWAY END IDENTIFIER LIGHTS
RNAV	AREA NAVIGATION
RPZ	RUNWAY PROTECTION ZONE
RSA	RUNWAY SAFETY AREA
RVR	RUNWAY VISUAL RANGE
RVZ	RUNWAY VISIBILITY ZONE
TOFA	TAXIWAY OBJECT FREE AREA
VASI	VISUAL APPROACH SLOPE INDICATOR

NOTES

1. SEE SHEETS 8 AND 9 OF 12 FOR DETAILS ON LANDSIDE DEVELOPMENT.
2. THE BUILDING RESTRICTION LINE (BRL) IS BASED ON A MAXIMUM BUILDING HEIGHT OF 35 FEET AT A 250' DISTANCE FROM THE PRIMARY SURFACE. MAXIMUM ALLOWABLE BUILDING HEIGHT FROM THE BRL INCREASES AT A 7:1 HORIZONTAL TO VERTICAL SLOPE UPWARD AND AWAY FROM THE PRIMARY SURFACE IN CONFORMANCE WITH FAR PART 77 SURFACES.
3. NO DECLARED DISTANCES USED OR PROPOSED.
4. THE EXTENSION TO RUNWAY 9 IS SHOWN FOR LONG-RANGE PLANNING PURPOSES ONLY. FAA APPROVAL OF AN EXTENSION WILL BE BASED ON A CHANGE IN THE CRITICAL AIRCRAFT.
5. ROADS IN RUNWAY 9 EXTENSION RPZ WILL GO THROUGH FAA GUIDANCE AT TIME OF PROJECT INITIATION.
6. FUTURE PROJECTS FOR REHABILITATION OR OVERLAY OF THIS RUNWAY IS CONSIDERED WORK EXCEEDING FAA STANDARDS. IF THE CITY OPTS TO MAINTAIN THE RUNWAY, IT WILL BE WITH LOCAL FUNDS OR IF AT SOME POINT THE RUNWAY MEETS CRITERIA TO JUSTIFY AIP FUNDING.
7. AIRPORT IS CURRENTLY OPERATING UNDER MOS THAT WAS DEVELOPED TO ACCOUNT FOR THE Q-400. THIS SPECIFIES A TAXIWAY WIDTH OF 64 FT. WITH 20FT. SHOULDERS.

LEGEND

DESCRIPTION	EXISTING	PROPOSED
AIRCRAFT TIEDOWN POSITION		NO CHANGE
AIRPORT BUILDING		
AIRFIELD PAVEMENT		
AIRPORT PROPERTY		
AIRPORT REFERENCE POINT (ARP)		
AUTOMOBILE PARKING		
AVIGATION EASEMENT		
BUILDING RESTRICTION LINE (BRL)		NO CHANGE
FENCE		NO CHANGE
HOLDING POSITION MARKING		NO CHANGE
PRECISION APPROACH PATH INDICATOR (PAPI)		NO CHANGE
ROADWAY		
RUNWAY END IDENTIFIER LIGHTS (REIL)		
RUNWAY OBJECT FREE AREA (OFA)		
RUNWAY OBJECT FREE ZONE (OFZ)		
RUNWAY PROTECTION ZONE (RPZ)		
RUNWAY SAFETY AREA (RSA)		
RUNWAY VISIBILITY ZONE (RVZ)		
TAXIWAY OBJECT FREE AREA (TOFA)		
TO BE REMOVED	NA	
TOPOGRAPHIC CONTOUR		NO CHANGE
VISUAL APPROACH SLOPE INDICATOR (VASI)		
WIND SOCK		NO CHANGE

URS
1501 4TH AVENUE, SUITE 1400
SEATTLE, WA 98101
PHONE: (206) 438-2700

PROJECT MANAGER:	JJY	DRAFTED BY:	RLO
DESIGNED BY:	RLO	CHECKED BY:	JJY

#	REVISION	COMPANY	BY	DATE
-	-	---	---	--/--/----

THE PREPARATION OF THIS AIRPORT LAYOUT PLAN (ALP) WAS FINANCED IN PART THROUGH A PLANNING GRANT FROM THE FEDERAL AVIATION ADMINISTRATION (FAA) AS PROVIDED UNDER SECTION 505 OF THE AIRPORT AND AIRWAY IMPROVEMENT ACT OF 1982. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICIES OF THE FAA. ACCEPTANCE OF THIS ALP BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED THEREIN NOR DOES IT IMPLY THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS.

FEDERAL AVIATION ADMINISTRATION APPROVAL
SEATTLE AIRPORTS DISTRICT OFFICE

First Middle Last Name
Title

Date

CITY OF YAKIMA

First Middle Last Name
Title

Date

YAKIMA AIR TERMINAL/McALLISTER FIELD
AIRPORT MASTER PLAN

AIRPORT LAYOUT PLAN

SCALE:	1" = 500'
DATE:	MARCH 2015

AIP NUMBER: 3-53-0089-32

SHEET NUMBER: 2 OF 12

ONE INCH AT FULL SIZE. IF NOT ONE INCH SCALE ACCORDINGLY

YKM - Sheet 02 (ALP).dwg

1.10 IMPLEMENTATION PLAN

An estimate of the probable cost of each recommended project was prepared for all projects. These are shown in Table 1-4. The table also includes information regarding the possible sources of funding for the projects. As shown the cost of implementation is approximately $60 million. However, the cost shown for the extension of Runway 9/27 and the rehabilitation of Runway 4/22 are not included as part of our capital development plan. Therefore the required investment envisioned for the 20-year period is closer to $50 million. Of this $50 million, the majority of the projects are eligible for funding under the Airport Improvement Program (AIP).

AIP funds are allocated by a formula driven by the number of annual enplaned passengers. The FAA evaluates all airport grant requests using a priority ranking system weighted toward safety, security, airfield pavement and airfield capacity projects. Other projects, such as terminal building construction and maintenance and construction of main access/entrance roads, are also eligible but receive lower priority rankings. Within the entitlement amount, up to 90 percent of eligible project costs are funded for non-hub airports such as YKM with the remaining 10 percent provided from other, local sources. Given current entitlement distribution formulas, the City can receive up to $1,000,000 per year from the AIP for use on eligible projects.

AIP discretionary grants are also occasionally awarded to airports for high priority projects that enhance safety, security or airport capacity but which would be difficult to fund within the entitlement program. These grants are over and above the airport's entitlement funding. The amounts of individual discretionary grants vary but can be significant in comparison to entitlements. Discretionary grant applications are evaluated based on need, the FAA's project priority ranking system, the FAA's assessment of a project's significance within the national airport and airway system and funding availability.

Additionally the Aviation Safety and Capacity Expansion Act of 1990 established the authority for commercial service airports to apply to impose a Passenger Facility Charge (PFC) of up to $3 per enplaned passenger. AIR-21, enacted in 2000, increased the allowable PFC level to $4.50. The proceeds from PFCs are eligible to be used for AIP eligible projects and for additional projects that preserve or enhance airport capacity, safety or security; mitigate the effects of aircraft noise; or enhance airline competition. PFCs may also be used to pay debt service on bonds and other indebtedness incurred to carry out eligible projects. PFC funds are collected at YKM and the proceeds are dedicated to meeting the local funding requirements of the CIP.

Table 1-4: Estimated Cost of Recommended Improvements

Project	Total Cost	Federal Funding	WSDOT Funding	Local Funding
Airfield Projects				
Extend Runway 9-27	$5,136,586	$4,622,927	$0	$513,659
Reconstruct Runway 4-22	$2,459,309	$0	$250,000	$2,209,309
Enhanced Pavement Markings	$575,904	$518,314	$0	$57,590
Lighting Replacement Runway 9-27	$575,904	$518,314	$0	$57,590
Taxiway Lighting Replacement	$575,904	$518,314	$0	$57,590
Snow Removal Equipment - Sweeper and Tractor	$500,150	$450,135	$0	$50,015
Snow Removal Equipment - Vacuum Truck	$392,975	$353,678	$0	$39,298
Snow Removal Equipment - Broom and Snow Blower	$1,071,750	$964,575	$0	$107,175
New ARFF Vehicle	$1,571,900	$1,414,710	$0	$157,190
Security Upgrades (Gates)	$714,500	$643,050	$0	$71,450
Wildlife Hazard Assessment	$71,450	$64,305	$0	$7,145
Total	***$13,646,332***	***$10,068,321***	***$250,000***	***$3,328,011***
Terminal Construction				
Conduct Environmental Analysis	$122,900	$110,610	$0	$12,290
Construct Terminal Building	$19,913,329	$17,921,996	$0	$1,991,333
Terminal Apron	$1,261,021	$1,134,919	$0	$126,102
Expand Auto Parking	$146,615	$0	$0	$146,615
Total	***$21,443,866***	***$19,167,525***	***$0***	***$2,276,340***

Table 1-4: Estimated Cost of Recommended Improvements (Continued)

Project	Total Cost	Federal Funding	WSDOT Funding	Local Funding
General Aviation Projects				
Purchase Noland Decoto Property	$1,309,000	$1,178,100	$0	$130,900
Hangar Rehabilitation (Noland Decoto Property)	$71,450	$0	$0	$71,450
Site Preparation	$693,958	$624,562	$0	$69,396
Environmental Mitigation	$37,897	$34,107	$0	$3,790
Utilities	$142,900	$128,610	$0	$14,290
Apron/Taxiway Pavement	$3,096,136	$2,786,522	$0	$309,614
Access Roadways (21st Ave)	$172,552	$155,297	$0	$17,255
Parallel Access Taxiway	$793,095	$713,786	$0	$79,310
Stub Parallel Taxiway	$1,187,821	$1,069,038	$0	$118,782
Total	***$7,504,808***	***$6,690,022***	***$0***	***$814,786***
Pavement Management Projects				
Rehabilitate Runway 9-27 Blast Pads	$71,443	$64,299	$3,572	$3,572
Rehabilitate Taxiway A and Connectors	$11,580,159	$10,422,143	$250,000	$908,016
Rehabilitate Taxiway B and Connectors	$680,561	$612,505	$34,028	$34,028
Rehabilitate Taxiway C North of Rwy 9-27	$175,053	$157,547	$8,753	$8,753
Preventive Maintenance on Taxiway C South of Rwy 9-27 and Connectors	$18,348	$16,514	$917	$917
Rehabilitate Northwest Aprons	$1,530,459	$1,377,413	$250,000	$403,046
Maintain Terminal Area Aprons	$943,140	$0	$250,000	$693,140
Rehabilitate Eastern Aprons	$1,571,543	$1,414,388	$78,577	$78,577
Maintain Southeast Aprons	$2,572	$0	$1,286	$1,286
Rehabilitate Taxilanes	$278,655	$250,790	$13,933	$13,933
Maintain Auto Parking Lots	$25,722	$0	$12,861	$12,861
Maintain Perimeter Road	$857,400	$771,660	$42,870	$42,870
Total	***$17,735,055***	***$15,087,258***	***$946,797***	***$2,200,999***
Total Program	**$60,330,061**	**$51,013,127**	**$1,196,797**	**$8,620,137**

1.11 BUSINESS PLAN

The information in Table 1-4 shows the capital needs of the airport. It needs to be determined if the City can fund both Capital Improvement Projects and annual airport operations and maintenance. The business analysis examined the airport's annual revenues and expenditures to determine whether it is in a financial position that provides an annual surplus or deficit. Since the City currently carries the primary financial responsibility for the maintenance, operation and capital improvements at the airport.

Airport revenue sources range from the direct such as fuel taxes, aircraft storage fees and other fees assessed for facility usage to the indirect such as contributions from area governmental entities. Operating revenues are those directly attributable to operation of the airport as a business enterprise. These can be expected to vary over time as changes in the level of activity at the airport and the commercial and general aviation industry as a whole have influence over the types of activity from which the revenues are generated.

Over the same period expenses at YKM include those directly related to the day-to-day operation and maintenance of the airport, capital projects needed to maintain and/or expand airport facilities, indirect costs associated with allocation of overhead, debt service on long-term loans and governmental fees and assessments. These have been estimated in the CIP and O&M projections in the master plan.